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*****DRAFT*** CAASPP Scope of Work B
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TASK 1: Comprehensive Plan & Schedule of Deliverables

Task 1 describes the activities, assumptions, and requirements to manage and administer the California assessment system for the 2018–19 and, 2019–20, 2020–21, and 2021–22 school years. The work described in this scope of work (SOW) builds on the work completed during the first three years of the ETS contract with the CDE for the California Assessment of Student Performance and Progress (CAASPP) as well as the three years of a separate contract to develop and implement the English Language Proficiency Assessments for California (ELPAC). Educational Testing Service (ETS) is the prime contractor under these agreements and is responsible for the overall management and administration of the services provided to the state under this contract and will continue to work closely with the California Department of Education (CDE) to confirm the success of the CAASPP and ELPAC administrations through the 2021–22 administration.

The previous Amendments 4 and 5 referred to the new CAASPP assessments as the California Alternate Assessments, the California Next Generation Science Standards (CA NGSS and CA NGSS Alternate) assessments, and the primary language assessments. This Amendment 6 refers to the California assessment system to include the following California assessments and tools:

- Smarter Balanced Digital Library

- Smarter Balanced Interim Assessments

- Smarter Balanced Summative Assessments

- California Alternate Assessments (CAA) for English-Language Arts, mathematics, and science

- California Science Tests (CAST)—formerly known as the CA NGSS

- California Spanish Assessments (CSA)—formerly known as the primary language assessments in Spanish

- English Language Proficiency Assessment for California (ELPAC)—which includes the Initial ELPAC paper-pencil test (PPT) and computer-based assessment (CBA) and Summative ELPAC PPT and CBA, unless otherwise specified

- Alternate English Language Proficiency Assessment for California (Alternate ELPAC) which includes the Initial Alternate ELPAC CBA and the Summative Alternate ELPAC CBA unless otherwise specified

ETS will manage the administration, scoring, and reporting activities and have overall responsibility for the constructed-response human scoring and artificial intelligence (AI) scoring for the California assessment system. In addition, ETS will manage the logistics and coordination of all management meetings, along with the development of all relevant materials. ETS will also provide Help Desk services and psychometric support. ETS will provide item development for all state-specific assessments: CAST, CAAs, CSA, ELPAC, and Alternate ELPAC CBA. ETS will host and provide support for the ETS proprietary Test Operations Management System (TOMS).

While ETS further details individual roles and responsibilities within the Scope of Work (SOW), the following text provides a high level summary of responsibilities for ETS and its approved partners under this Amendment 6:

- **American Institutes for Research (AIR)** will provide hosting and support for its test delivery system and online reporting system, and an identity management service, a component of the overall California Assessment Delivery System. These are the same systems used in the successful spring 2014 Field Test and in the first four operational administrations of CAASPP.

- **Measurement Incorporated (MI)** will assist ETS in the constructed-response scoring for various grades for all Smarter Balanced-related assessments, including human and AI scoring.

- **WestEd** will provide training to local educational agencies (LEAs) and educators about the California assessment system administered under this contract with the goal of using the assessment information to support classroom instruction. WestEd training activities will include but are not limited to developing and facilitating training workshops, materials, and videos. WestEd trainers may include current California educators such as staff from County Offices of Education or school districts. ETS might also use WestEd expertise in the areas of content and assessment design in the continued development of the California assessment system.

- **Sacramento County Office of Education (SCOE)** will recruit educators and scorers, organize logistics for large-scale, in-state educator review meetings, provide LEA training, and assist with key scoring activities.

- **Red Dog Records (RDR)** will serve as the program's multimedia experts and provide video (live and animated) production, web broadcast, and audio-visual support services.

- **In-Touch Insight Systems (In-Touch)** will continue its role to provide test security site visits and audits for this contract.

For simplicity, ETS and its partners will be referred to as ETS in this SOW except where references to specific proprietary systems or methodologies are noted.

1.1. Schedule of Deliverables (formerly referred to as the Work Plan), Narrative Schedule, and Timeline

ETS will draft a schedule of deliverables and a supporting project schedule for the delivery of the California assessment system, as described in the Scheduled Management in Task 1.1.A. The current CDE-approved Schedule Management Plan requires iterative updates of the schedule of deliverables and project schedule with submissions to the CDE scheduled in May, July and September annually. ETS will use the September submission to baseline the complete project schedule for the most current test administration year. During the planning meetings with the CDE and State Board of Education (SBE) staff, ETS will review the most current version of the schedule of deliverables and project schedule, focusing on fine-tuning the plans for each coming contract year.

The schedule of deliverables will include key tasks with dependencies, deliverables with corresponding durations, assigned resources, and responsible staff members. The comprehensive schedule, as revised and updated for each contract year, will clearly identify milestone tasks, deliverables, resource names, and actual start and finish dates. The most current, approved versions of these documents will reside on a shared, password-protected virtual workspace accessible by both the CDE and ETS. The schedule will also be made available to the CDE in Microsoft Project (MPP) format upon request. For the purposes of initial planning, the sample program schedule is included as Appendix A—Sample Program Schedule.

ETS will use a three-step process to develop the schedule of deliverables for the California assessment system:

1. First, ETS will use Council of Chief State School Officers (CCSSO) operational best practices and the California Project Management Framework (CA-PMF) to detail the plans.

2. Second, ETS will develop a program summary based on the agreed-upon requirements that outlines the work that ETS will perform and how it will be performed.

3. Finally, ETS will use process documents to guide day-to-day activities.

The timeline referenced in Appendix A—Sample Program Schedule is a sample to be used for the initial planning discussions. All schedules will be reviewed and approved by the CDE prior to implementation. It is to be a working document that is updated on an ongoing basis throughout the life of the contract.

Regular reviews of the schedule of deliverables will be conducted by ETS during internal weekly meetings and during the weekly management meetings with the CDE as described in Task 1.3.A. The purpose of these reviews is to discuss recent progress of scheduled tasks, upcoming tasks, and the likelihood of remaining on schedule with key upcoming critical milestones.

To track the schedule of deliverables, ETS will submit a schedule variance status report that identifies any tasks that are behind schedule and proposes a plan for successfully completing the deliverable. For tasks that will be delivered late, ETS will track the original due date versus the actual delivery date and provide a summary report at the end of each project year.

The schedule will include detailed information on resource and work associated with the California Assessment Delivery System to comply with State Information Technology (IT) Management Guidelines.

1.1.A. Project Management Plan

During project initiation in 2015, ETS project managers developed a Project Management Plan (PMP) for the CAASPP System, including the California Assessment Technology Platform as described in Task 3. The PMP will cover the duration of the contract; start-up tasks will be included only in Year 1. ETS will confirm that the PMP is in compliance with California Project Management Framework (CA-PMF) and the State Information Management Manual (SIMM) and will include all identified schedule elements such as actual and planned start and finish dates. ETS will use a template consistent with the CA-PMF to confirm that all key components are identified and presented in a consistent format. The PMP will remain accessible on the project SharePoint® site. Project management practices will be subject to continuous evaluation and improvement, and the PMP will be updated at appropriate intervals. CDE will review and approve all PMP updates using the process outlined in the Task 1.9. ETS will make the schedule available in Microsoft Project (MPP) format (i.e., Microsoft Project extension) for the CDE.

The PMP will include, at a minimum, the following elements:

- Scope Management Plan—ETS will identify and document scope using the Project Definition document template. The PMP will require the project team to document work in-scope, work out-of-scope, deliverables produced, stakeholders, and interdependencies with other projects.

- Organizational Chart and Governance Model—ETS created the Project Organization chart as one component of the PMP. ETS's Project Review Committee will regularly evaluate the California assessment system activities to ensure that the project team has the support needed to be successful.

- Configuration Management Plan—ETS documents the configuration management plan for California and describes a configuration management tool to manage changes to the production system, including production environments, software releases and their content, and other production configurations.

- Change Control Management Plan—ETS will manage the scope for development of the California Assessment Technology Platform through a structured change management process. First, ETS will establish baselines for scope and schedule at the outset of each administration year. In the project SharePoint site, ETS will continue to utilize the established change log to document and track change requests, and will continue to use the review process to confirm that requests are vetted with the appropriate stakeholders. Project leadership will then change requests to assess impacts and gain agreement on how to address those impacts in support of a formal approval process. As soon as a change request is approved and obtains signoffs, ETS will update the change log, integrate changes into the project plan, and re-baseline schedules if necessary.

- Communications Management Plan—During project initiation 2015, ETS planned for the appropriate communications so that the CDE stakeholders will be aware of not just the type of communications they will receive but also the purpose, frequency, and media (e.g., meeting, email) of each communication. ETS will continue implementation of the approved Communications Management Plan.

- Risk Management and Escalation Plan—The ETS project manager will lead the project team and other key stakeholders through a risk identification and analysis session during the planning phase for each test administration. Identified risks will be added to a risk log which remains accessible on the project's SharePoint site. In the event that a risk becomes an issue, the ETS project manager will add the issue to the issue log that is always accessible on the project's SharePoint site. The project manager identifies appropriate owners to remediate issues in a timely fashion to confirm continued project success while reducing the emergence of new issues or risks. Senior management, consisting of ETS's Project Review Committee and the CDE representatives, will regularly review critical project risks and issues.

- Quality Management Plan—The ETS project team will continue to utilize the ETS Quality Management Plan template to construct a California Quality Plan during the Project Planning phase. The Quality Management Plan summarizes the quality targets and management processes undertaken during the Project Execution phase. As a result, ETS will be able to consistently reference the Quality Management Plan throughout the project to monitor and control the level of quality of the deliverables built and processes undertaken on the project.

- Requirements Management Plan—ETS uses this process to manage solution scope, requirements, and requirements traceability, as well as to maintain requirements for re-use and communicate the requirements. ETS will utilize seasoned business analysts to identify stakeholders; elicit, document, and confirm business needs; and manage traceability and gaps. The requirements management process includes securing approvals, managing issues that emerge during elicitation and analysis, and managing change control of baseline

requirements and solution scope. ETS uses requirements traceability to detect missing functionality and to assist in scope and change management, as well as during risk management. ETS analysts will confirm the requirements are clear, concise, accurate, and at the appropriate level of detail so that ETS can effectively communicate the requirements the stakeholders.

- Schedule Management Plan—ETS will continue to utilize detailed schedules and dashboards that will be accessible by the CDE and that will produce schedules in the required MPP format for CDE use. ETS builds schedules and dashboards based on well-developed scheduling principles and published best practice guidelines. Breakdown structures highlight key task dependencies, critical paths, milestones, deadlines, and resources. ETS then baselines and provides the baselined schedule to the CDE in September annually. ETS reviews the schedule on a weekly basis to verify the maintenance of all tasks and timelines. ETS will closely monitor any variance from the schedule baseline to minimize impacts from tasks added, deleted, or updated to reflect changes based on the project team's input.

- Resource Management Plan—ETS will monitor resources across all project teams and departments to optimize resource capacity, improve productivity, and use analytics to track utilization and reforecast staffing for projects when necessary.

1.2. Orientation Meeting

Not applicable for the amendment period. Please see Task 1.3 for the planning meeting requirements.

1.3. Management Meetings

ETS will schedule and facilitate management meetings with the CDE. ETS will be responsible for the meeting costs, including travel expenses, for its staff. ETS will continue to scope each meeting, develop agendas, and produce appropriate materials. All management meetings will take place in Sacramento, unless otherwise directed by the CDE.

ETS will submit minutes of all meetings via email to the appropriate CDE staff. These minutes will address all tasks, with particular emphasis on questions or issues regarding contract fulfillment, coordination, and SOW modifications or enhancements. ETS will post these meeting minutes to the web-based, password-controlled enterprise system.

1.3.A. Weekly Meetings

Weekly Management Meetings. ETS will hold weekly management meetings with the CDE to update and assure that the CDE is informed of all decisions. The purpose of the weekly management meetings is for ETS program leadership to meet with the CDE

California assessment system managers and their staff to review the statuses of current program activities, provide updates to open action items, and discuss variances to the approved baseline schedule. The weekly management meeting may also include ETS staff such as managers of:

- California Technical Assistance Center (CalTAC)

- Statistical Analysis

- Information Technology

- Operations

- Test Development

- Appropriate Subcontractor Coordinators

All weekly management meetings will be in person at CDE offices with other key staff joining by conference call as appropriate. The CDE reserves the right to require any contractor or subcontractor to attend the meetings in person instead of via telephone- or video-conference when the CDE deems it warranted.

ETS will issue the weekly management meeting agenda in consultation with the CDE. The agenda will cover the current SOW in progress and will be distributed on the Friday before the weekly management meeting. At the beginning of each month, ETS will circulate a calendar for the month based on the project plan agreed upon at the weekly management meetings. ETS will also review the schedule variance status report described in Task 1.1.

Other Weekly Meetings. During the weekly management meetings, ETS and the CDE may decide to hold separate weekly meetings for specific topics. For example, the CDE and ETS may agree to hold weekly meetings for each assessment separately in addition to holding the weekly management meetings. ETS will include the appropriate CDE California assessment system manager in the separate weekly meetings. ETS will involve the CDE contract monitor in all meetings that involve the California Assessment Technology Platform, whether those meetings are part of or held separately from the weekly management meeting.

For all meetings, including face-to-face and video- or audio-conferences, ETS will facilitate the meeting, record minutes of the meeting, and track completion of assignments. The minutes will be distributed to the CDE and the entire team within two business days of the meetings. ETS will review the meeting minutes with the CDE at the beginning of the next weekly meeting.

1.3.B. Semi-Annual Planning Meetings

ETS will semi-annually host a multi-day planning meeting in Sacramento which gathers key ETS CAASPP and ELPAC team members to meet with CDE program managers.

The purpose of the semi-annual planning meeting will be to discuss the test administration or development activities that will take place in the next nine to twelve months of the contract and will allow participants to have detailed discussions about the topics. The semi-annual planning meetings will be scheduled for a two-day period approved by the CDE. Additional planning meeting days to discuss specific areas of the contract—for example, separate planning meetings for CAAs, CAST, CSA, ELPAC, and Alternate ELPAC CBA—may be hosted by ETS with CDE approval. Table 1 presents the proposed schedule and general topics for the semi-annual planning meetings. The actual dates and agenda will be proposed by ETS and approved by the CDE.

Table 1. Proposed Semi-Annual Planning Meeting and Topics

Month of the Planning Meeting	Program Period to be Discussed	General Topics to be Discussed
January 2019	January 2019–December 2019	2019–20 Administration • Business Requirements • Assessment Technology Platform • System Rollover • Operational Forms • Training and Communications Plan
June 2019	June 2019–July 2020	2019–20 Administration • Reporting • Post-administration Activities • Continuous Improvement Plan 2020–21 Administration • Item Bank Analysis • New Item Development • Reporting Requirements

Month of the Planning Meeting	Program Period to be Discussed	General Topics to be Discussed
January 2020	January 2020–December 2020	2020–21 Administration • Business Requirements • Assessment Technology Platform • System Rollover • Operational Forms • Training and Communications Plan
June 2020	June 2020–July 2021	2020–21 Administration • Reporting • Post-administration Activities • Continuous Improvement Plan 2021–22 Administration • Item Bank Analysis • New Item Development • Reporting Requirements
January 2021	January 2021–December 2021	2021–22 Administration • Business Requirements • Assessment Technology Platform • System Rollover • Operational Forms • Training and Communications Plan

Month of the Planning Meeting	Program Period to be Discussed	General Topics to be Discussed
June 2021	June 2021–July 2022	2021–22 Administration • Reporting • Post-administration Activities • Continuous Improvement Plan
January 2022	January 2022–December 2022	Transition activities to the next contractor
June 2022	June 2022–December 2022	2021–22 Administration • Reporting • Post-administration Activities Transition activities to the next contractor

Staff members from the SBE and from the Department of Finance (DOF) will be invited to attend the planning meetings at the direction of the CDE. Those who cannot attend in person may attend via video and audio conference. ETS will provide a draft timeline in MPP format for all to review as described in Task 1.1. The outcome of this planning meeting will be an update to the draft timeline and any changes to the SOW requested by the SBE testing liaisons and SBE staff, the CDE California assessment system managers, and the DOF. The minutes and updated project documents will be distributed to the CDE and the entire team within ten business days of the semi-annual planning meetings.

1.3.C. State Board of Education (SBE) Meetings

Every time the SBE conducts public meetings, ETS program managers and relevant ETS officers will attend as required by the CDE. When the SBE is discussing issues that may require ETS's expertise, such as test development or statistics, the appropriate specialists or subcontractors will also attend the meetings and be available to answer questions or provide background as requested. At the CDE's and SBE's direction, ETS will continue to offer special presentations to the SBE, based on ETS's expertise and experience.

1.3.D. Technical Advisory Group (TAG) Meetings

ETS understands that the CDE will continue to have separate technical advisory groups, one for CAASPP and one for ELPAC. The ETS Executive Director or designee will coordinate with the CDE program managers and psychometrics manager on the development of TAG agenda topics. During the meeting, ETS will facilitate discussion about topics related to ETS activities by bringing the appropriate staff into the discussion and by providing the materials needed by the CDE, TAG members, and the independent evaluator. Additional staff will be available via teleconference as needed. ETS is responsible only for ETS staff travel and material preparation, as required.

For each meeting, ETS will work with the CDE to determine what data and information should be presented, and ETS will provide clear agenda topics and supporting materials to the CDE at least five business days before the meeting. Within five business days of the meeting, ETS will provide proposed studies or analysis plans to the CDE for review and approval.

1.4. Coordination, Continuous Improvement, and Independent Evaluation

In addition to the expertise of staff proposed as core members of the ETS team, ETS will provide the CDE with additional support as needed from a group of senior ETS advisors, all of whom were former state assessment directors. The overall Communications Management Plan is discussed in Task 3.2.A.

1.4.A. Coordination with the Smarter Balanced Assessment Consortium and CDE/SBE Entities and Staff

ETS will coordinate activities to administer the California assessment system with related efforts led by the CDE/SBE, and, at the direction of the CDE, involving the CDE Outreach and Technical contractor, the Smarter Balanced Consortium, the K–12 High Speed Network (K12HSN), and the California Longitudinal Pupil Achievement Data System (CALPADS).

Coordination with Smarter Balanced. ETS will manage the overall coordination activities with the Smarter Balanced Assessment Consortium and with CDE/SBE entities and staff. ETS will assign a project manager to take the lead in maintaining the coordination plan, participating in the vendor meetings scheduled by Smarter Balanced, and establishing and maintaining the secure coordination website. The ETS project manager, along with the ETS technology manager, will also coordinate activities related to the implementation of the new ETS-hosted California Identity Management System and to the new California Educator Reporting System (CERS) developed and hosted by Smarter Balanced.

Network Coordination Meetings. ETS will lead and facilitate meetings with the CDE and K12HSN to coordinate technology-related activities that will confirm the successful administration of the California assessment system. ETS will invite CDE staff from the

Education Data Management Division and Technology Services Division to the Network Coordination Meetings. ETS will invite other stakeholders, such as Smarter Balanced, as directed by the CDE. The Network Coordination Meetings will be held at least quarterly. The meetings may be held more often if the needs of the CAASPP administrations require. ETS will prepare the agenda, take minutes, and distribute the minutes as described in Task 1.6.

Coordination with the CDE Outreach and Technical Contractor. ETS will schedule at least bi-weekly collaboration meetings that are led by the CDE. The collaboration meetings will include the CDE, ETS, the CDE Outreach and Technical contractor, and other stakeholders as determined by the CDE. ETS will coordinate with meeting attendees to produce the agenda, produce minutes, and distribute the meeting minutes as described in Task 1.6. ETS also will develop a written communication plan as part of Task 2 for each annual administration that will contribute to and coordinate with the efforts by the CDE-led team. Specific activities may include, but are not limited to:

- Operating http://www.caaspp.org/ and http://elpac.org, the websites for local educational agencies (LEAs) and their staff that presents information about the administration activities for annual administrations;

- Producing webcasts and online videos about the assessments geared toward school and LEA staff, test administrators, technology coordinators, and student data coordinators;

- Developing a list of frequently asked questions (FAQs) about the annual administration processes and procedures; and

- Coordinating and staffing communication opportunities at statewide and regional association conferences such as the CDE North/South Assessment and Accountability Meetings, the annual conference for the California Educational Research Association, or Regional Assessment Network meetings.

All content of the communications under the communications plan with LEAs and the public regarding annual assessment administrations will be approved by the CDE and the SBE liaisons and staff, where the CDE deems appropriate, before being disseminated.

1.4.B. Development of Plan for Continuous Improvement

ETS will work with the CDE to create a three-year plan supporting continuous improvement of the California assessment system. In addition to opportunities for improvement identified in the three-year plan, ETS will propose, based on its experience, opportunities for program improvements that emerge over the course of the contract. ETS will submit the draft plan to the CDE with the agenda for the June semi-annual planning meetings and will submit the final plan within fifteen working days of the June planning meeting, whichever is earlier, and refine it to reflect feedback from the CDE, SBE staff, the SBE testing liaisons, and the CDE's external evaluator.

1.4.C. Coordination with the Independent Evaluator

The law establishing the CAASPP assessment program called for an independent evaluation of the impact of this requirement and of the quality of the CAASPP assessments. ETS will provide support to the CDE in response to requests from the CAASPP independent evaluator. ETS also will provide support to the CDE in response to requests from the ELPAC alignment study contractor or other independent evaluation contractor that supports the ELPAC.

Attend Meetings

ETS will participate in meetings convened by the CDE and the independent evaluator(s) for the purposes of identifying and providing the information necessary for the evaluation. The ETS executive director and director of operations will have access to other ETS and subcontractor staff that may participate in the meetings. ETS assumes that meetings related to the independent evaluation(s) will be held at the CDE offices or by telephone.

Provide Materials and Data

ETS will provide all necessary materials and data to the independent evaluators that are developed as part of this contract. In recognition of the independent evaluator's need to gather data to further his or her analysis of the California assessment system, ETS will:

- design test materials (e.g., online surveys, online tests using the Test Delivery System, paper answer documents, and paper test booklets) to include questions that gather these data

- coordinate with the independent evaluator and the CDE to identify desired changes to these questions prior to the annual review of test materials, detailed later in this SOW

- deliver the questionnaire response data to the independent evaluator and to the CDE on a schedule developed with the evaluator

- continue to provide the evaluator with student demographic information and student item responses, in addition to questionnaire data

ETS will work with the independent evaluator and the CDE to comply with data sharing requests per the independent evaluator's preference. For example, the independent evaluator may request that ETS send demographic data via CD-ROM and post item responses to a secure file transfer protocol site. At a minimum, ETS will:

- submit a Final Item Analysis and equating file to the independent evaluator following each administration

- submit updated student data files for each administration after annual processing has been run

For all materials requested, ETS will work with the independent contractor(s) and the CDE to develop a plan and timeline for submission. ETS assumes that requests will be provided in writing to the ETS executive director and director of operations and that ETS will have ten business days, at minimum, to respond to each request.

1.4.D. Responding to Concerns

ETS assumes that the independent evaluator(s) will submit the report to the CDE annually, and that an electronic copy of the report will be provided to ETS at the same time. ETS will provide a written response, within four weeks of receipt of the report, to any concerns that may be included in the independent evaluator report. The response will include a process and timeline for resolving each concern reported by the independent evaluator. ETS assumes that any subsequent responses to evaluator comments will be provided in electronic copy to ETS and that ETS will provide written responses within four weeks of receipt of each subsequent request.

1.5. Transition of Contracts

As contractor for the previous CAASPP and ELPAC contracts, ETS will provide for the continued operations of the assessments through the end of this contract. ETS will also continue maintaining the comprehensive archive of data and materials from previous administrations. In addition, ETS will maintain the documentation and process information developed under this contract to provide to the next contractor at the end of this contract.

At the end of the contract, ETS will work closely with the CDE to develop and implement a plan and schedule for transition to another vendor. ETS will deliver all required materials, including, but not limited to, reports and electronic data files, applications and supporting documents (a complete set of updated business and functional requirements reflecting the system as it stands at the time of transition), and other materials developed for the California assessment system. Materials also will include materials and deliverables described in Task 6 – such as the item bank analysis, test blueprints, item and test specifications, and test packages for online tests for any assessments under development. Additionally, ETS will deliver item utilization plans, including a table which summarizes the following: item types, point values, depth of knowledge (DOK), and complexity; whether an item is resting, retired, an anchor item, ready for operational use, on practice or training tests, on the parent-friendly website, and scheduled to be used in administration year; and the bank's needs to sustain operational testing. ETS will deliver these materials on a schedule to be determined by the CDE, by December 31st of the year following the last test administration. One ETS project management team member will serve as a transition manager to assist the new contractor until the end of the calendar year in which the last administration is completed.

1.6. Records and Minutes

At all meetings, including, but not limited to, management meetings and program committee meetings, ETS will take minutes, record information, and document any assignments or tasks for follow up. These notes will be produced in a format required by the CDE and that complies with Section 508 accessibility requirements. ETS will keep secure electronic copies of all the records throughout the life of the contract unless otherwise directed by the CDE.

Each set of minutes will include listings of all those present and their contact information. ETS will review the contact information of attendees to determine if it has changed and update the CDE, if appropriate. At the planning meetings, ETS will propose a format for the meeting minutes for CDE approval.

ETS will distribute minutes from weekly meetings and other conference calls to the CDE for approval within two business days. For all other meetings, ETS will distribute minutes to the CDE for the CDE's approval within five business days of the meeting. When approved, all relevant team members will receive copies.

ETS will keep secure electronic copies of all the contract documents for five years after the final payment of the contract period.

1.7. Monthly Accomplishments Reports and Weekly Management Status Reports

ETS will provide regular status reports to the CDE that clearly identify the activities that are specific to CAASPP and those that are specific to ELPAC.

Monthly Accomplishments Reports

ETS will communicate all accomplishments to demonstrate the CDE expenditures on the California assessment system by means of a monthly accomplishments report submitted as part of the invoice. The accomplishments report is to be presented as a detailed narrative attached to each invoice from ETS to the CDE. The accomplishments report is to be sorted by test and test administration and provide a breakdown of the costs invoiced per task or subtask in the SOW. The summary shall also include a history of invoices previously submitted to date.

ETS will submit this report to the CDE by the fifteenth of the following month. A hardcopy original will be delivered to the CDE. The CDE will share accomplishments reports with SBE staff. In the event that this report will be delayed beyond the fifteenth of the following month, ETS will notify the CDE of the expected date of delivery by the seventh of that month.

Weekly Management Status Reports

In addition, ETS will submit to the CDE a weekly management status report that will provide the CDE-required details including the identification of issues and their

resolutions; changes to the program documentation; and flags of the items that are directly related to the California Assessment Technology Platform, see Figure 1 in Task 3. The issues included in the weekly management status report will be discussed with the CDE during the weekly management meeting described in Task 1.3. ETS will ensure that the metrics reported to the CDE in the weekly management status report and through other dashboard reporting methods will be consistent with the service-level agreements (SLAs) described in this SOW.

Early Identification of Potential Issues (Risk Management)

ETS will manage and update the risk management plan described in Task 3.1 for the California assessment system with review and approval by the CDE. The plan will also identify what actions ETS can take to offset those risks, along with contingency plans if preventive actions cannot be implemented. The ETS Executive Director, along with staff from the ETS project management staff, in collaboration with the CDE will take the following steps as part of the ETS active risk management plan.[1]

- **Risk Identification.** ETS will assemble stakeholders to identify possible project risks. ETS will base this identification on prior assessment reports, potential areas of security breach, areas of the project that are not yet well-defined, and areas of known potential for problems. ETS will document possible risks to the defined schedule of deliverables and include this documentation in a risk register.

- **Risk Analysis.** Once potential risks are identified, ETS will analyze them for their probability, quantitative impact, and qualitative impact. ETS will then translate these into numerical values to accurately determine the outcome of these risks on the cost, time, and resource factors of the project.

- **Identify Risk Triggers.** ETS will identify triggers, or warning signs, for risks within their assigned areas of the California assessment system that might affect the processes for deliverables in the schedule of deliverables and document the triggers associated with each potential risk.

- **Risk Resolution.** Risks are unknown events that are inherently neutral, but which are categorized as either positive or negative. Each functional area within ETS will identify and document preventive actions for potential negative project risks, or threats, as well as enhancement actions for the positive risks or opportunities.

- **Risk Resolution Action Plan.** Based on the collective ideas of the departments, the ETS Executive Director will decide on a plan of action to bring about risk

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[1] Dcosta, Amanda. *A Practical Approach to Creating a Risk Management Plan.* February 4, 2014. http://www.brighthubpm.com/risk-management/2875-a-practical-approach-to-creating-a-risk-management-plan/

resolution. ETS will rate risks by urgency, based on potential impact to the California assessment system's cost, timeline, and deliverables. In many cases where risks have lesser probability or impact, ETS will be able to simply monitor risks without a defined action.

- **Responsibility and Accountability.** ETS will assign responsibility to various teams and team members for carrying out the risk resolution plans for the California assessment system. Ultimately, the ETS Executive Director will be solely accountable to the CDE for the plans and actions related to the risks of the California assessment system.

ETS will monitor the California assessment system's risk management plan on a weekly basis and will review the risk management log bi-weekly with the CDE. The bi-weekly review will include identifying new risks and dismissing current risks as no longer relevant.

1.8. Document Format and Style

ETS will verify that communications and reports sent to the CDE comply with the format and style as specified. ETS will maintain and implement the CDE format and style requirements and will establish compliance with Section 508 accessibility requirements, as specified in Exhibit D.

ETS will comply with the most current version of the CDE Style Manual and the CDE Correspondence Guide, and the CDE web requirements. In addition to the guidelines outlined in the CDE Style Manual, reports for special studies and research will comply with the CDE requirements in Appendix B—Reporting Expectations for Special Studies and Research Projects.

1.9. CDE Notification and Approval Schedule

Issue Escalation Procedure

ETS will make it a priority to keep the CDE informed on all important issues regarding the California assessment system. ETS will prepare an escalation strategy for notifying the CDE within two hours of any issues that may arise during the program. This includes a plan for promptly communicating to the CDE Contract Monitor via telephone, with a follow-up in writing, of any problem that has the potential to impact the quality, timeliness, or other aspect of the project. This follow-up will include the proposed solution and a solution timeline. In addition, subsequent reports to the CDE will contain the issue, the determined solution, and current status within the solution timeline. ETS will work with the CDE to appropriately communicate critical information to the field.

With the California assessment system, ETS developed multiple key strategies that maintain communications for all team members. These strategies include:

- having all of the ETS management team staff participate in weekly meetings, both internal and client-facing

- making all key managers available by cell phone, email, and voicemail seven days a week, especially during peak periods

- conducting weekly internal meetings among ETS staff

- using email in a disciplined manner to keep ETS managers and the CDE informed of all activities in all components of the SOW

- distributing a key contact information sheet that provides telephone, email, fax, and cell phone information for all key management or personnel

- maintaining issues logs and risks management logs, and providing access to them to all ETS staff and the CDE

- following an escalation process for routine and emergency issues

- identifying the initial issue or potential scope change

- conducting an internal discussion of an issue or potential scope change

- conducting a discussion with senior management

- conducting a discussion of an issue with the CDE

- performing root cause analysis

In addition, during the contract period, ETS will enhance these techniques to best suit the needs of the CDE. The goal will be to alert each ETS manager promptly if a deliverable is at risk of falling behind schedule or faces some other type of challenge. ETS will also aim to keep the CDE Contract Monitor apprised of all potential and actual issues that occur and describe how they are being resolved.

Approval and Certification Process

For planning purposes, ETS will use the standard deliverable review process—referred to as the Gatekeeper Process—outlined in the following text; however, ETS understands and acknowledges the need for flexibility to meet compressed or extended review requirements and will work with the CDE to develop a mutually agreeable review process and schedule for the given deliverable.

1. ETS submits the initial draft deliverable to the CDE.

2. The CDE reviews the initial draft and provides comments to ETS within ten business days of the ETS submission.

3. ETS prepares and submits the revised deliverable to the CDE within five business days after receipt of the CDE's written comments to the initial draft.

4. The CDE reviews within five business days the revised draft and provides one of the following decisions:

   - Approval

   - Approval with edits

   - Edits and revisions required

5. ETS will take one of the following actions depending on the CDE review decision in step 4:

   - Deliverables that receive an "Approval" will be finalized by ETS. The finalized deliverable will be submitted to the CDE for archive purposes within five business days of the date of CDE's notice of approval.

   - Deliverables that receive an "Approval with edits" will be revised and finalized by ETS while incorporating the additional CDE edits. The finalized deliverable will be submitted to the CDE for archive purposes within five business days of the date of CDE's notice of approval.

   - Deliverables that have "Edits and revisions required" will be revised by ETS and submitted to the CDE for another review. Prior to revising the deliverable, ETS will meet with the CDE to discuss the required revisions and to ensure that the revisions are clearly understood. The meeting will occur within one business day after ETS receives the CDE edits. During the meeting, ETS will revise the schedule for the deliverable with the CDE. The iterative revision and review process will continue until the CDE has approved the deliverable.

ETS will use a similar process for materials that required the CDE review and approval but were not identified in the SOW as a deliverable unless otherwise noted. ETS and the CDE will refer to these submissions as Review Items. Examples of Review Items include, but are not limited to, email communications to the LEAs, memoranda to document decisions, and presentations or white papers to document CAASPP activities. Because time is of the essence with the content of some of the Review Items, ETS and the CDE will collaborate on the agreed upon timeline for each Review Item. Therefore, a Review Item could have a shorter CDE or ETS review timeline than a Deliverable.

Before ETS submits a deliverable to the CDE, and at each stage of the review for the deliverable, ETS's program management representative will submit a signed certification with every deliverable attesting that the deliverable is error-free and meets all requirements. ETS will use a web-based certification process to track deliverables submitted through the Gatekeeper Process.

The ETS Gatekeeper will manage the process by which deliverables and review items are submitted to the CDE and will manage feedback received from the CDE. The Gatekeeper will serve as the single point of contact for submitting deliverables and review items to the CDE and notifying the CDE of the submissions. The Gatekeeper will work with the program management representative to verify the completion and inclusion of certification as part of the submission. The Gatekeeper will also be the single point of contact for the CDE to return feedback and/or approval of the deliverable and review item and will confirm that the CDE's feedback or approval has been communicated to the appropriate ETS program management member. The Gatekeeper may also assist the CDE and ETS in coordinating discussions about the deliverables and review items during the review process.

ETS will not disseminate materials to LEAs or publicly release any CAASPP or ELPAC materials without the CDE's prior written approval.

TASK 2: Program Support Services

ETS is committed to providing superior support services that make it as easy as possible for schools, LEAs, and the CDE to implement the California assessment system. Support services are combined to include both the CAASPP and ELPAC assessments, which will streamline customer service and provide more cohesive support to LEAs. This section describes how ETS will implement communication activities to help the CDE broaden California's understanding of the summative testing system and of the available interim and formative tools.

2.1. Coordinators

LEA CAASPP and ELPAC Coordinator and Superintendent Contact Information

TOMS will use the school hierarchy file provided by the CDE to populate its database. LEAs will receive annual communications, providing them with adequate time, to submit required information according to testing regulations as noted.

Superintendent Designation Form

LEAs will receive the annual communication about CAASPP by May 1st from ETS requesting that the superintendent of each LEA designate a testing coordinator for CAASPP. ETS expects that LEAs will provide the following information on or before July 1st for CAASPP or as required by the testing regulations (*California Code of Regulations*, Title 5, Section 857: LEA CAASPP Coordinator):

- designate from among the employees of the LEA an LEA CAASPP coordinator

- identify school(s) with pupils unable to access the computer-based assessment (CBA) version of a CAASPP test(s) in accordance with *EC* Section 60640(e)

- report to the CAASPP contractor(s) the number of pupils enrolled in the school identified in subdivision (2) that are unable to access the CBA version of a CAASPP test

To facilitate the distribution of the electronic student score reports, LEA CAASPP Coordinators also will be asked to authorize ETS to provide access to the CAASPP student score reports to the student information system (SIS) vendor(s) designated by the LEA.

LEAs will receive the annual communication about ELPAC by February 1st from ETS requesting that the superintendent of each LEA designate a testing coordinator for ELPAC. ETS expects the LEA to provide the following information on or before April 1st for ELPAC or as required by the testing regulations (*California Code of Regulations,* Title 5, Section 11518.40 LEA ELPAC Coordinator):

- designate from among the employees of the LEA an LEA ELPAC coordinator

ETS will require LEA ELPAC Coordinators to report to ETS the number of pupils enrolled in school who may need to take the paper-pencil version as required by their IEP and/or 504 plan or because they are unable to access the ELPAC CBA due to unexpected, temporary technical issues that cannot be resolved within two weeks. To facilitate the distribution of the electronic student score reports, LEA ELPAC Coordinators also will be asked to authorize ETS to provide access to the ELPAC student score reports to the student information system (SIS) vendor(s) designated by the LEA.

The prior year's LEA CAASPP and ELPAC coordinators will also receive a copy of the request to complete the designation form in order to assure receipt and action from the Superintendent. Any changes to the assigned LEA CAASPP or ELPAC coordinator made during a testing year will require the Superintendent to submit a new designation form.

ETS will coordinate the collection of the designation forms and security agreements to be ready at the beginning of the test administration year for each program. For ELPAC, the test administration year begins on July 1st; and for CAASPP, the test administration year begins in August with the release of the Smarter Balanced Interim Assessments. Beginning mid-May annually for ELPAC and mid-August annually for CAASPP, ETS will follow up with LEAs that have not yet submitted their designations forms. On June 1st for ELPAC (or the following business day if June 1st is a weekend) and September 1st for CAASPP (or the following business day if September 1st is a weekend or holiday) annually, ETS will provide the CDE with a list of LEAs that have not specified an LEA coordinator.

ETS will continue to follow-up with the non-responsive LEAs through September 1st annually for ELPAC, and through December 1st annually for CAASPP, or until the CDE provides direction, whichever occurs first. After September 1st and December 1st, for the respective programs, ETS will automatically designate the LEA superintendent or charter school administrator as the LEA coordinator for each program.

Security Agreements and Security Affidavits

ETS will provide an online Security Agreement and Security Affidavit annually together with the Superintendent's Designation Form for the appropriate school year. LEA coordinators and site coordinators for CAASPP and ELPAC are required to complete the test security agreement for their respective assessment. For LEAs that use an external SIS vendor for their student data and parent portals, LEA coordinators will be required to authorize ETS to provide access to student-level data directly to the LEA's SIS vendor by selecting the authorization during the test security agreement process. LEA CAASPP and ELPAC coordinators will be required to sign their respective Security Affidavit (i.e., the LEA CAASPP coordinator signs the CAASPP Security Affidavit and the LEA ELPAC coordinator signs the ELPAC Security Affidavit) and to obtain a signed Security Agreement and signed Security Affidavit from each CAASPP and ELPAC test site coordinator. In addition, LEA CAASPP and ELPAC coordinators must obtain signed

Security Affidavits from all test examiners, proctors, and scribes as well as from any other LEA and school staff that will have access to either paper or electronic test materials. The LEA CAASPP and ELPAC coordinators must keep the original signed agreements and affidavits on file locally as specified in testing regulations. ETS will make recommendations to the CDE on improvements to the designation form process that provide consistency and efficiencies for LEAs where possible.

Collection of Required Forms and Access to TOMS

After ETS has received the completed Superintendent's Designation Form and Security Agreement from an LEA, the coordinator designated by the superintendent will receive a username and temporary password to access TOMS. As required forms are received for site coordinators, test administrators, test examiners, local scoring tool (LST) correspondence administrators, and LST data entry personnel, these users will also receive a username and temporary password to access TOMS, providing them access to systems. Users that have not completed the required forms for their role, will not be granted access to TOMS or other test administration systems.

In 2019–20, ETS will integrate the required forms within TOMS. Once integration with TOMS is complete, the electronic receipt of these forms into TOMS will automatically trigger user access to the system. For ELPAC, user access will begin no earlier than July 1st annually. For CAASPP, user access will begin no earlier than the first Tuesday after Labor Day annually.

ETS and the CDE will be able to generate a report in TOMS that provides a count of LEAs who have returned their Superintendent's Designation Form, Security Agreements, and Security Affidavits. ETS will report these counts weekly as part of the weekly management meeting described in Task 1.3.

LEA coordinators will be able to generate a report in TOMS that provides a count of test site coordinators, test administrators, and test examiners that have submitted the necessary Security Agreement and Security Affidavits. LEA coordinators will also have the ability to download the completed forms for their LEA.

CDE and ETS will consider future efficiencies to the designation form process during the life of this contract, such as a combined designation form, Security Agreement, and security affidavit for both CAASPP and ELPAC. ETS also will modify due dates and content for required forms to comply with any future changes to CDE regulations.

2.2. Administration Management System LEA Support

The TOMS application will serve as the primary conduit for users of the online system. Administrators and educators can upload files, retrieve reports, and utilize a long list of other functions. TOMS will use CALPADS data for the LEA/school hierarchy and for enrollment data. The CALPADS enrollment data will be used by TOMS to determine test assignments. ETS will work with the CDE to establish a daily data feed of

CALPADS data to TOMS. Additional information about the data feed is described in Task 3.

TOMS will include functionality to collect test administration materials ordering information, delivery date options, delivery to school or LEA (LEAs may choose different option for materials versus reports shipment), label options, updates to school and LEA addresses, contacts, and other information. TOMS will also allow LEAs to order accommodated test materials or additional materials and other services that cannot be accommodated by data flows from state-level data. TOMS functionality will automatically apply overage rules as specified by the CDE.

Users will access TOMS via the portal and will have one district-specific user ID and password (single TOMS sign-on) to perform all required functions to administer and report online and paper tests. Specifically, this includes the ability of one district-specific user ID to view student information, determine test eligibility, determine resources, prepare for online testing, and view score reports. Additional information about single TOMS sign-on is described in Task 3.

AIR's proprietary Test Delivery System (TDS) system will manage and track LEA requests for appeals, as allowable by state regulations.

ETS will present a complete set of TOMS system modification requirements for the CDE's approval before TOMS is configured for the 2018–19, 2019–20, 2020–21, and 2021–22 administrations as part of activities described in Task 3. After the CDE approves this plan, ETS will present a complete project schedule with achievable milestone dates that will include system demonstrations, user acceptance testing by CDE representatives with accompanying system user guides, and built-in time to make any potential system refinements before the published launch date.

2.3. Data-Driven Improvement

ETS will use a variety of approaches to solicit and use data and information to improve processes and support, inclusive of all CAASPP and ELPAC assessments.

Specifically, under the leadership of the CDE, ETS proposes the following data collection actions:

- collect feedback from LEAs at workshops across the state on specific topics using informal focus group discussions

- provide statewide training that allows LEAs sufficient time to conduct local training

- review question logs from live webcasts for patterns and themes

- obtain feedback weekly from CalTAC on the nature of calls and emails received to identify key recurring points and questions from the field

ETS will summarize the data collected after each data collection event and will determine if a solution or action can be implemented to address specific concerns or suggestions. ETS will provide the CDE with the recommended solutions or actions as they are identified and will implement the solutions or actions that are approved by the CDE. Annually in the June semi-annual planning meetings, ETS will provide an overall summary of the data-driven improvement activities that occurred during the previous administration year as well as the proposed plans and goals for improvements in the next and future administration years.

In addition to the data-driven improvement activities described previously, ETS will conduct nine virtual formal focus groups total for both CAASPP and ELPAC annually as part of within the terms of this contract to collect input to the design of the enhanced Student Score Reports (SSRs) described in Task 9. ETS will work with the CDE to determine the purpose, schedule, audience, and mode (i.e., phone interview, or virtual) of each session. At the end of each formal focus group, ETS will prepare and submit a summary of the focus group responses and a set of recommendations about the enhanced SSRs. ETS will submit the report according to the timeline agreed upon with the CDE through the schedule of deliverables and supporting project schedule. Enhancements approved by the CDE will be incorporated into the SSR reporting specifications described in Task 9.

2.4. Technical Assistance Center

ETS will provide a comprehensive support team to the CDE and LEAs during each annual administration for the support of CAASPP and ELPAC, including all summative assessments, Initial ELPAC and Alternate ELPAC CBA when operational, interim assessments, the Digital Library, and user provisioning questions. The CDE and LEAs will have access to ETS program managers, LEA outreach team members, CalTAC technical assistance center staff, and computer-based testing technology experts.

ETS will provide three-tier help desk support. Support will be provided specifically to LEA CAASPP coordinators, LEA ELPAC coordinators, and LEA technology coordinators.

The three different tiers of help desk support are as follows:

- Tier 1 – CalTAC

- Tier 2 – ETS's internal technical support team

- Tier 3 – Smarter Balanced and/or AIR

Tier 1: CalTAC

ETS will provide California assessment system support services for state- and LEA-level customers throughout the calendar year. By offering streamlined customer

support, LEAs coordinators can expect support for all California assessment system assessments from a single call. CalTAC will:

- operate during the hours of 7 a.m. to 5 p.m. Pacific Time, Monday to Friday, excluding designated federal and California school holidays, with extended hours as needed

- provide a dedicated toll-free telephone number handling 200 concurrent callers

- provide a dedicated email address

- offer real-time chat as an alternative to telephone or email

- maintain a fax line to communicate sensitive information (e.g., information that includes student names)

- provide proactive support to LEAs during calls, such as reviewing testing status or material orders

ETS will use upgraded call center software to modernize the support center infrastructure. Advanced call center software includes the following enhancements for LEA staff and customer service representatives:

- provide caller information on screen to the customer service representative, eliminating search time and wait time for the caller

- allow customer service representatives to answer remotely, providing seamless support in the event of a building evacuation

- allow CalTAC representatives to use the system to process call campaigns (for contacts that have a direct line rather than a main number for the LEA), expediting the time it takes to complete a call campaign and providing consistent messaging

- provide callers the option to receive a call back in the order the call is received

- allow for custom messages to be played during wait time

- notify the caller of an approximate wait time until their call will be answered

- allow calls and voice messages to be transferred between CalTAC representatives

ETS will publish all CalTAC contact information in program materials and on http://www.caaspp.org/ and http://elpac.org.

In addition, the ETS director of operations will serve as the single point of contact for responding to inquiries from the CDE staff and the CDE contractors within two business

hours. The ETS program manager will serve as the single point of contact on critical Smarter Balanced issues (e.g., Tier 3 support issues). These points of contact will have the support of ETS's technology manager.

Response Time. ETS will continue to provide excellent technical assistance for LEAs by monitoring target response times and adjusting support according to the needs of LEAs. ETS will have 30–50 customer service representatives dedicated to handling CAASPP and ELPAC inquiries and will answer 80 percent of telephone calls within 60 seconds. During normal business hours, 95 percent of email inquiries will be answered with complete information within two hours of receipt when received before 3 p.m. Email messages received after 3 p.m. or during non-business hours will receive responses by 9 a.m. the next business day. ETS will post chat feature responses to 80 percent of inquiries within 90 seconds of receipt during normal business hours. ETS will answer telephone messages received before business hours by 9 a.m. the same business day, and telephone messages received after 3 p.m. will be answered by 9 a.m. the next business day. ETS relies on system productivity tools and supervisor interventions to monitor response time, and ETS will meet the CDE's response expectations during the administration window.

ETS will have documented processes to monitor the quality and accuracy of telephone and email responses by CalTAC staff through supervisory monitoring, LEA or state feedback, or other methods, and will provide retraining as necessary.

ETS will provide weekly customer service summary reports to the CDE. ETS will provide the metrics based on the service-level agreements (SLAs) for response time and call quality and accuracy. The reports will be provided to the Smarter Balanced Assessment Consortium vendor as requested and approved by the CDE.

CalTAC will support only CAASPP and ELPAC-related contacts from LEA CAASPP and LEA ELPAC coordinators. ETS will have protocols in place to ensure that the contact is transferred to the appropriate representative who could answer non-CAASPP or non-ELPAC-related calls, for example, legislation-related calls or calls about local assessments.

Tiers 2 and 3: Technology Support (ETS and AIR)

Tier 2 support will be accomplished through a seamless integration of ETS's internal technical support team, a second level that will manage intermediate-plus issues. Tier 2 technical support also will provide support to Student Information System (SIS) vendors that need technical support with electronic reporting. Two technical services staff will continue to be based in California to provide Tier 2 technical support. Other technical services staff will be located in New Jersey to provide additional Tier 2 technical support. In addition, technical services will assist in technical site visits, in-person training workshops, and technology-related webcasts.

Unresolved issues at Tier 2 will escalate to Tier 3, the test delivery system (TDS) and reporting vendor AIR or Smarter Balanced for the Digital Library and the CERS.

Escalation to this level will be for technology issues directly related to the TDS, reporting system, or the Digital Library. AIR will provide responses back to ETS within 24 hours to allow for information sharing across the platform. In addition, AIR will assist with in-person training workshops and test system-related webcasts. ETS assumes that Smarter Balanced will provide a single point of contact as part of the Agreement between the CDE and the University of California at Santa Cruz which serves as the fiscal agent for Smarter Balanced. ETS will contact the Smarter Balanced single point of contact on escalations related to any Smarter Balanced-provided products and applications.

Technical issues identified during a testing window that cannot be resolved by CalTAC immediately will be transferred to ETS's technical services team. If a school or LEA has a technical issue and students are in the classroom unable to test, the call is to be moved to technical support immediately for resolution or a recommendation should be provided to have students test at a later time if the problem cannot be immediately. Students should not be kept in a classroom for more than 15 minutes waiting for resolution if not agreed upon by the LEA.

Training of CalTAC Staff, Training Materials, and Informational Updates

Customer Service Representative Training. ETS will continue to provide training for customer service representatives through an ETS-certified trainer. Training will last for ten business days, and upon completion of this training all representatives will be able to assist customers with:

- installing secure browsers

- creating users in TOMS and resetting system passwords

- utilizing all CAASPP and ELPAC management functions in TOMS

- processing supplemental orders for paper materials

- understanding summative, initial, and interim test administration procedures, including for both computer-based and paper-pencil assessments, where applicable

- using the Digital Library

- accessing student-level and aggregate score reports

- processing requests for rescoring

- finding answers to questions about upcoming trainings and events

- accessing applicable resources on http://www.caaspp.org and http://elpac.org

Customer Service Representative Training Materials. ETS will use information from CDE-approved sources to develop program training and reference materials. These sources will include:

- online contextual help and administration manuals

- CAASPP and ELPAC PowerPoint presentations

- FAQs

- Standard Operating Procedures

- CAASPP and ELPAC webcast presentations

- hands-on user acceptance testing (UAT) environments

- http://www.caaspp.org/ and http://elpac.org

Informational Updates. ETS internal informational updates will follow an established protocol within CalTAC. ETS director of operations or designee will hold regularly scheduled internal briefing meetings with the CalTAC Manager and senior CalTAC Supervisors to provide the latest program updates. The internal briefings will occur at least weekly and will be scaled up to daily briefings, according to test administration needs.

As new information becomes available from the internal briefings of senior CalTAC supervisors, ETS will distribute an updated informational flash to customer service representatives and to the CDE staff designated by the contract monitor via email. This flash tip sheet will detail the new information, the appropriate strategy for sharing the information with LEAs, the appropriate resolutions required, and the documentation method within ETS contact management tools and system. ETS will collaborate with the CDE on talking points, to include informational flashes as needed. ETS will include informational flashes in any future training sessions, and will modify material to reflect these updates. As the California assessment system evolves, ETS will update FAQs and training so that procedures for contact center staff remain up-to-date.

Annual and Periodic Customer Support Services Reports

CalTAC Annual Report. ETS will continue to provide the CDE with a CalTAC Annual Report by September 30th annually that documents CalTAC staff roles, customer support levels, training methods, tracking categories, and monthly call, email, and chat volumes. ETS will provide the metrics based on the SLAs described in this task.

ETS will continue to distribute the annual reports according to the CDE's specifications (i.e., posting to a project site or emailing to a distribution list).

Customer Contact Tracking System. The ETS customer contact tracking system collects contact information and tracks issues. Upon request, ETS will provide the CDE

with detailed information on why a contact called and the resolution for each contact. ETS can also provide, at the CDE request, customer service representative-level detail with a historical view for each time a customer has contacted CalTAC. ETS will collaborate with the CDE to anticipate events before they occur while providing support and resolution to the field with timely and effective information to resolve any emerging issues.

Customer Service Representative Efficiency. CalTAC uses performance dashboards to view real-time telephone, email, and chat performance. ETS will use these dashboards to track individual performance and determine if additional support for the contact is necessary. ETS also uses the dashboards to make dynamic staffing adjustments as needed to maintain required response times.

2.5. Student Accessibility Tool

ETS will support the current California version of the Individual Student Assessment Accessibility Profile (ISAAP) tool for the CAASPP 2018–19 administration year, including supporting the extract that can be uploaded into TOMS. To address the Section 508 accessibility issues that cannot be corrected in the current ISAAP tool, ETS will work with the CDE to develop an online version of the ISAAP tool for the CAASPP and ELPAC assessments for future administrations. The new online ISAAP tool will be available at the beginning of the 2019–20 administration year and will meet Section 508 accessibility requirements and will provide a means by which LEAs can report the accessibilities used in the classroom and used during testing.

ETS will further customize and enhance the California ISAAP tool annually thereafter to include tools, supports, and accommodations that may be needed in order to respond to policy changes from the state, the federal government, or the Smarter Balanced Consortium, or there may be new accessibility components needed specifically for the new non-Smarter Balanced computer-based assessments. ETS will propose what changes are required and possible to customize and improve the California ISAAP tool.

Annually, ETS will actively identify and propose improvements to the TOMS user interface and upload functionality for LEAs to enter student-designated supports and accommodations for both CAASPP and ELPAC assessments. If the CDE develops the capacity to provide student-level designated supports and accommodations information through CALPADS during the terms of this contract, ETS will provide the CDE with the recommended changes to the California Assessment Technology Platform to allow for automated use of that data. Approved changes to the California Assessment Technology Platform will be at no additional charges to the CDE. ETS assumes that the LEAs will develop functionality to upload data from the ISAAP tool into their systems and CALPADS based on their local needs.

2.6. Internet Resource Sites

ETS will maintain the websites that will be the central repository for all information regarding CAASPP (http://www.caaspp.org) and ELPAC (http://elpac.org). ETS will submit the websites through a Web Application Review Team (WebART) review annually to ensure that the sites continue to meet the CDE web standards. All new content produced after January 18, 2018, and posted on the CAASPP- and ELPAC-related websites will meet WCAG 2.0 Level A and Level AA requirements. The portals will have a section to house accessible manuals, software, item samples, and training materials that do not require a user ID or password to access. The portal will have search capabilities for public use. The search results will provide links to the pertinent information in the current versions of manuals and documents posted.

The portal will also link to a secure site that will allow for secure posting of data directly to LEAs or that will be accessible by LEAs for retrieval of data. Only authorized users will be able to access the secure site.

ETS will track and report the number of times that resources have been accessed on the portal.

As new Internet and social media resources become available, ETS will consider each to determine whether or not they might be appropriate for CAASPP and ELPAC. ETS will provide recommendations to the CDE for consideration.

ETS will obtain feedback from users through a CDE-approved process such as an online feedback form. ETS will make recommendations to the CDE for improvements to the websites based on user feedback and will implement the CDE-approved changes.

2.7. Workshops, Videos, and Webcasts

ETS will establish and implement a training plan for LEA assessment staff on all aspects of the assessment programs that ensures the continued success of the CAASPP program and incorporates the ELPAC to a computer-based assessment. The CDE and ETS will determine audience, topics, frequency, and mode (e.g., in-person, webcast, videos, modules) of the training, including such elements as format, participants, and logistics. It is anticipated that the training plan will be implemented in August annually.

Planned workshops, videos, and webcasts are included in Table 2 at the end of this task.

ETS will present the names and qualifications of proposed presenters and all associated workshop and webcast materials to the CDE in advance for its review and approval. Following approval by the CDE, materials will be posted on http://www.caaspp.org/ or http://elpac.org so that viewers may download the materials for the workshop (as appropriate) or webcast.

Webcasts and Recorded Training

ETS will include live webcasts in the annual LEA Communication and Training Plan as appropriate. Webcast viewers will be provided with a method of electronically submitting questions to the presenters during the webcast. The webcasts will be closed captioned. The webcasts will be recorded and archived for on-demand viewing.

In-person Training

In-person trainings will typically be conducted at county offices of education or universities, if possible. The first in-person training in a series will typically be held in Sacramento. Proposed locations for the in-person training will take into consideration providing convenient locations for as many LEAs as possible while ensuring efficient use of limited staffing resources.

ETS will use an online registration system to track reservations and provide registration confirmation to participants with location, date, and time of their training session. ETS will provide training materials electronically to participants prior to the workshop to allow attendees to print the materials and bring them to the workshop or to save them to their devices. For some workshops, such as scoring workshops, printed materials may be provided during the workshop and PowerPoint printouts may be provided after the workshop. For workshops that require access to online applications to fully participate in the training, ETS will secure facilities with WiFi for participants. For any workshop, a small number of ancillary handouts may be printed for participants (e.g., flyers, fact sheets). ETS will obtain signed confidentiality agreements and release forms from participants prior to each session.

Registration Fees for Professional Development Opportunities

Upon CDE approval, ETS may charge a minimal registration fee for professional development workshops, such as the Summer Institutes and *The Results Are In, Now What?* workshop series. Workshops that are required for administration, such as Pretest and ELPAC scoring workshops, will be offered at no cost. The registration fees collected at these events may only be used to offset the costs of the training materials provided and for the logistics of putting on the workshop and shall not be used to offset the salaries of contractors, subcontractors, or their staff. Any registration fees collected shall be reported to the CDE in the Monthly Accomplishments Report (Task 1.7) in the month following the collection of fees; and the Monthly Accomplishments Report shall include an accounting of how those registration fees were spent. Any expenses paid for with the registration fees shall not be included in any invoice to the CDE. While there should not be any fees collected in excess of the amounts necessary to cover the costs of training materials and logistics for the specified professional development opportunities, any fees unexpended shall be used for additional similar professional development training opportunities.

Videos and Narrated PowerPoint Presentations

To supplement the live webcasts and in-person workshops, ETS will publish the "how to" videos and narrated PowerPoint presentations listed in Table 2 that will be available on http://www.caaspp.org/ and http://elpac.org (as appropriate). The short videos, video sets (e.g., test settings and accessibilities), and narrated PowerPoint presentations average about five minutes with the longest no more than 30 minutes. Videos will be available for viewing from http://www.caaspp.org/ and http://elpac.org (as appropriate) and will be closed captioned. Videos will be hosted on the CAASPP YouTube Channel (https://www.youtube.com/channel/UCjjzq3RWBZ2yBXUWQNroRjQ) and ELPAC YouTube Channel (https://www.youtube.com/channel/UCOXS8EKwrtSSUY7IkrB06Ww) for the respective programs, providing maximum visibility and accessibility.

2.8. Local Assessments: Smarter Balanced Interim Assessments and Digital Library

ETS will support California's kindergarten through twelfth grade (K–12) educators in accessing and using Smarter Balanced Interim Assessments and their results. Additionally, ETS will help educators use the Smarter Balanced Digital Library. As described in Task 7.3.A.1, the ETS plan for supporting LEAs includes:

- a unified platform for delivery of all system components which will leverage the dedicated California Identity Management system for single sign-on between the California- and vendor-managed system, including the Smarter Balanced Digital Library and the CERS (discussed in Task 3)

- large-scale teacher training in the scoring of students' responses to constructed-response and performance task items (discussed in Task 7.3.A.1)

- training and materials to guide use of the interim assessments and accurate interpretations of scores and support effective use of results for instructional purposes (discussed in Task 7.3.A.1)

ETS will provide eight training sessions per administration year focusing on the process of hand scoring interim assessments as well as accessing the interim assessment systems and Digital Library. Each training session will be two days long and will include hand-scoring training of constructed-response items and of performance tasks. Based on feedback from workshop evaluations, the CDE and ETS can consider modifying this series to be 16 single-day workshops. The CDE and ETS will determine the audience and content for this workshop series annually.

2.8.A. Smarter Balanced Interim Assessments

ETS understands that the intent of the CDE is to have the Smarter Balanced-provided interim assessments available year round to LEAs through the life of the contract. To that end, ETS will use the test delivery system to deploy the interim assessments during a timeframe that supports the annual rollover of the California Assessment Delivery

System to the next school year. See Section 3.2.B.8 for more details on this process. ETS will incorporate any Smarter Balanced-provided updates to the interim assessments annually. The California Assessment Delivery System is able to deliver both adaptive and fixed-form test designs; however, only fixed-form interim assessments are available at the time of this contract renewal. The system allows LEAs to access the on-demand online administration throughout the year except during the CDE-approved downtime.

ETS will provide the following materials for the interim assessments:

- Interim Assessment User Guide

- Exemplars and Training Guides (Scoring Guide) (as published by Smarter Balanced)

2.8.B. Digital Library of Formative Assessment Resources

Via the self-registration interface and/or their LEA CAASPP and ELPAC coordinator, California LEA staff (e.g., principals, educators) can request access to the Smarter Balanced Digital Library of formative assessment resources. If Smarter Balanced no longer supports self-registration to the Digital Library during the life of this contract, ETS will work with the CDE and Smarter Balanced to allow for self-registration through the California identity management system, if possible. The California identity management system is described in Task 3.

ETS understands that Smarter Balanced will host the Digital Library and will manage, with the CDE, the process and means by which materials are added to the collection.

2.9 CAASPP Science Academy

ETS will provide science assessment expertise to the CDE Outreach and Technical contractor in support of their delivery of the Science Academies. ETS support will be conducted as part of the assessment development activities described in Task 6.

Table 2. Planned Workshops, Videos, and Webcasts

Number	Name and Description of Training	Assessments Included	Type of Training	Cost to Participants	Proposed Primary Audience	Estimated # of Participants per Session	Planned # of Sessions	Available Languages	Estimated Durations	Planned Locations	Estimated Timeframe to Provide Training and Year of Initial Training	School Years Provided
1	Summer Institutes: Provide thorough training and practice on scoring and on accessing the interim assessment systems and the Digital Library	Smarter Balanced Interims, Smarter Balanced Digital Library	In-person workshop	Yes, fee TBD	All educators	200	8 (or 16 1-day work-shops)	English, ASL	2-day	2 North, 2 Central, and 4 South	July–Early August 2019	2018–19, 2019–20, 2020–21, 2021–22
2	ELPAC Post-Test Webcast: Principles of Scoring and Reporting	ELPAC	Webcast	No cost	ELPAC coordinators	1000	1	English, ASL, CC	1 hour	Virtual and archived on elpac.org	May/June 2019	2018–19, 2019–20, 2020–21, 2021–22
3	ELPAC The Results Are In–Now What? Workshop: Provide guidelines for score interpretation; includes information about how to use assessment results to inform teaching and learning	ELPAC	In-person workshop	Yes, fee TBD	ELPAC coordinators, teacher leaders, and educators	75-100	8	English, ASL	4.5 hours	2 North, 2 Central, and 4 South	May/June 2020	2019–20, 2020–21, 2021–22
4	Regional training for ELPAC The Results Are In–Now What? Webcast: Provide guidelines for score interpretation; includes information about how to use assessment results to inform teaching and learning	ELPAC	Webcast	No cost	ELPAC coordinators, teacher leaders, and educators	75-100	1	English, CC	4.5 hours	Virtual and archived on elpac.org	May/June 2022	2019–20, 2020–21, 2021–22

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5	What is Computer-Adaptive Testing (CAT): Provides high-level information on CAT and how it works	General	Online Module	No cost	CAASPP coordinators, test administrators, educators	n/a	1	English, CC	15 minutes	caaspp.org	September 2019	As Smarter Balanced updates
6	Performance Task Overview: Explains the Smarter Balanced performance tasks (PTs)	General	Online Module	No cost	CAASPP coordinators, test administrators, educators	n/a	1	English, CC	20 minutes	caaspp.org	September 2019	As Smarter Balanced updates
7	What is a Multi-Staged Test (MST): Provides high-level information on MST and how it works	General	Video	No cost	CAASPP coordinators, test administrators	n/a	1	English, CC	15 minutes	caaspp.org	September 2019	Annual updates as needed
8	Setting Up Your CAASPP Test Administration Window: Demonstration of how to set up a test administration window in TOMS	CAASPP	Video	No cost	CAASPP coordinators, test administrators	n/a	1	English, CC	5 minutes	caaspp.org	September 2019	Annual updates as needed
9	TOMS: Adding Users One by One: Video demonstration on how to add and manage users through the user interface	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	5 minutes	caaspp.org, elpac.org	June 2019	Annual updates as needed

Number	Name and Description of Training	Assessments Included	Type of Training	Cost to Participants	Proposed Primary Audience	Estimated # of Participants per Session	Planned # of Sessions	Available Languages	Estimated Durations	Planned Locations	Estimated Timeframe to Provide Training and Year of Initial Training	School Years Provided
10	TOMS: Adding Users by Batch File Upload: Video demonstration on how to add and manage users using the template and file upload	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	5 minutes	caaspp.org, elpac.org	June 2019	Annual updates as needed
11	TOMS: Configuring Student Test Settings One by One: Video demonstration on how to configure student test settings through the user interface	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	5 minutes	caaspp.org, elpac.org	September (may revise timeframe as ELPAC transitions to CBA) 2019	Annual updates as needed
12	TOMS: Configuring Student Test Settings by Batch File Upload: Video demonstration on how to configure student test settings using the template and file upload	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	5 minutes	caaspp.org, elpac.org	September (may revise timeframe as ELPAC transitions to CBA) 2019	Annual updates as needed

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13	Using the California Individual Student Assessment: Accessibility Profile (CA-ISAAP) tool and instructions for using the tool to create student test settings files	All	Video	No cost	CAASPP coordinators, test administrators, educators. Beginning 2019–20, ELPAC coordinators, test examiners, and educators will be added.	n/a	1	English, CC	15 minutes	caaspp.org elpac.org	September 2019	Annual updates as needed
14	Informational video about electronic reporting	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners, educators, parents, students	n/a	5	English, Spanish, Vietnamese, Mandarin, Filipino. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 minutes	caaspp.org, elpac.org	May/June 2018	2018–19

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15	Preparing Technology for Online Testing and Electronic Reporting: Review LEA technology requirements, secure browser installation, and electronic reporting technology interface	All	Webcast	No cost	CAASPP coordinators, ELPAC coordinators, and technology coordinators	1000	1	English, CC	1 hour	caaspp.org elpac.org	October 2018	2018–19, 2019–20, 2020–21, 2021–22
16	Introduction to Universal Tools for Use in Classroom Instruction and Assessments (includes introduction by ACSE)	All	Video	No cost	All educators	n/a	1	English, Spanish, Vietnamese, Mandarin, Filipino. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	12 minutes	caaspp.org, elpac.org	September 2018	Annually
17	Universal Tools: Demonstration of Universal Tools available to students within the test delivery system	All	Video	No cost	CAASPP coordinators, ELPAC coordinators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	12 minutes	caaspp.org, elpac.org	October (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed

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18	Accessibility Resource Videos: Demonstration of every embedded accessibility resource (includes up to 5 updated or new videos per administration)	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, educators, parents, students	n/a	52 videos	26 English and 26 Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	1 minute	caaspp.org, elpac.org	October (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed
19	State ELPAC Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain for PPT operational Summative ELPAC (Includes test administration videos)	ELPAC	In-person workshop	No cost	ELPAC coordinators, test examiners	75-100	24	English, ASL	1 day	4 North, 8 Central, and 12South	October – November 2018	2018–19 (fall 2018)
20	State ELPAC CBA Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain for the Summative ELPAC CBA (Includes test administration videos)	ELPAC	In-person workshop	No cost	ELPAC coordinators, test examiners	75-100	20	English, ASL	1 day	4 North, 8 Central, and 8 South	October – November 2019	2019–20 (Fall 2019), 2020–21 (Fall 2020), 2021–22 (Fall 2021)

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21	Regional training for State ELPAC Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain for the Summative PPT in 2018 and CBA in 2019–2022 ELPAC (Includes test administration videos)	ELPAC	In-person workshop	No cost	All County Office of Education Staff	100	1	English, ASL	1 day	Sacramento	October 2018	2018–19 (Fall 2018), 2019–20 (Fall 2019), 2020–21 (Fall 2020), 2021–22 (Fall 2021)
22	Initial ELPAC CBA Overview	ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 – 10 minutes	elpac.org	May/June 2020	2020–21 (Spring 2020), annual updates as needed
23	Summative ELPAC CBA Overview	ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 – 10 minutes	elpac.org	October 2019	2019–20 (Fall 2019), annual updates as needed

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24	Initial Alternate ELPAC CBA Assessment Overview	Alternate ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 – 10 minutes	elpac.org	October 2020	2020–21 (Fall 2020), annual updates as needed
25	Visual Impairment Support Video #1: Configuring Job Access with Speech (JAWS) Demonstration	All	Video	No cost	All teachers of visually impaired students	n/a	1	English, CC	20 – 30 minutes	caaspp.org, elpac.org	November (may revise timeframe as ELPAC transitions to CBA) 2019	Annual updates as needed
26	Visual Impairment Support Video #2: Configuring Zoom Text	All	Video	No cost	All teachers of visually impaired students	n/a	1	English, CC	10 minutes	caaspp.org, elpac.org	November (may revise timeframe as ELPAC transitions to CBA) 2019	Annual updates as needed
27	Accessibility and Accommodations: Covers the purpose and importance of accessibility, available universal tools, designated supports, and accommodations	All	Video	No cost	CAASPP coordinators, ELPAC coordinators	n/a	1	English, CC	10 – 20 minutes	caaspp.org, elpac.org	November (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed

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28	Using the Online Practice and Training Tests Differences and uses of Practice and Training tests and how to access them	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	10 minutes	caaspp.org, elpac.org	November (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed
29	CAA for Science Embedded Performance Task: Video that outlines the overall process for administering an embedded performance task	CAA for Science	Video	No cost	CAASPP Test Examiners	n/a	1	English, CC	20 minutes	caaspp.org	November 2018	Annual updates as needed
30	Setting Up A Test Session: Video that demonstrates how to set up a test session using the test administrator interface and student testing interface	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	15 minutes	caaspp.org, elpac.org	December (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed
31	Summative ELPAC CBA Operational Overview	ELPAC	Video	No cost	ELPAC coordinators, test examiners	n/a	1	English, CC	5 – 10 minutes	elpac.org	December prior to the administration start 2019	2019–20, 2020–21, 2021–22

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32	Test Examiner Tutorial: Tutorial for test examiners that covers the appropriate test administration procedures for CAA for ELA, Mathematics, Science, and Initial and Summative Alternate ELPAC CBA	CAAs, Alternate ELPAC	Online Module	No cost	CAASPP and ELPAC Test examiners	n/a	1	English, CC	½ hour to 1 hour per CAASPP content area, 2-3 hours per assessment (Initial, Summative) for Alternate ELPAC CBA	caaspp.org, elpac.org	September - CAA for Science and December - CAA for ELA/ Mathematics (may revise timeframe as Alternate ELPAC CBA becomes operational) 2019	Annual updates as needed
33	CSA Test Administration: Video that covers the administration procedures for the CSA	CSA	Video	No cost	CAASPP Test administrators	n/a	1	English, CC	30 minutes	caaspp.org	January 2019	Annual updates as needed
34	CSA Testing Interface: Spanish video that provides an overview of the testing interface for students	CSA	Video	No cost	CAASPP Test administrators, students	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	15 minutes	caaspp.org	January 2019	Annual updates as needed

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35	Pretest Workshop: Comprehensive train-the-trainer model that provides an overview of test administration procedures for all CAASPP and ELPAC assessments, including alternate assessments	All	In-person Workshop	No cost	CAASPP coordinators, ELPAC coordinators	75 – 100	8	English, ASL	4 – 6 hours	2 North, 2 Central, and 4 South	January 2019	2018–19, 2019–20, 2020–21, 2021–22
36	Pretest Workshop Webcast: One of the in-person workshop broadcast live: Provides a comprehensive overview of test administration procedures for all CAASPP and ELPAC assessments, including alternate assessments	All	Webcast	No cost	CAASPP coordinators, ELPAC coordinators	1000	1	English, CC	4 – 6 hours	Virtual and archived on caaspp.org and elpac.org	January 2019	2018–19, 2019–20, 2020–21, 2021–22
37	STAIRS Tutorial: Demonstration of the process for submitting a test security incident through STAIRS	All	Video	No cost	CAASPP coordinators, ELPAC coordinators	n/a	1	English, CC	15 minutes	caaspp.org, elpac.org	February (may revise timeframe as ELPAC is integrated) 2018	Annual updates as needed
38	Requesting an Unlisted Resource: Demonstrates the process for requesting an unlisted resource	All	Video	No cost	CAASPP coordinators, ELPAC coordinators	n/a	1	English, CC	15 minutes	caaspp.org, elpac.org	February (may revise timeframe as ELPAC is integrated) 2018	Annual updates as needed

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39	Test Security Guidelines: Requirements, test security guidelines for test administrators and test examiners	All	Video	No cost	CAASPP coordinators, ELPAC coordinators, test administrators, test examiners	n/a	1	English, CC	15 – 30 minutes	caaspp.org, elpac.org	February (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed
40	Using Completion Status to Plan and Manage Testing	All	Video	No cost	CAASPP coordinators, ELPAC coordinators	n/a	1	English, CC	15 minutes	caaspp.org, elpac.org	March (may revise timeframe as ELPAC transitions to CBA) 2018	Annual updates as needed
41	Developing LCAP Goals: Training on how to use CAASPP and ELPAC data to develop measurable LCAP goals	All	Online Module	No cost	All LCAP Coordinators	n/a	1	English, CC	1 – 2 hours	CDE website; linked on caaspp.org and elpac.org	November 2019	Annual updates as needed
42	Smarter Balanced Interim Assessment Video Series: 1. Introducing the Smarter Balanced Interim Assessments 2. The Interim Assessment Viewing System 3. Interim Assessment Administration 4. Interim Assessment Hand Scoring 5. Accessing, Interpreting, and reporting Interim Assessment Results	Smarter Balanced Interims	Online Module or narrated Power-Point	No cost	CAASPP coordinators, test administrators, educators	n/a	1	English, CC	10 – 30 minutes each module	CDE website; linked on caaspp.org	April 2019	Annual updates as needed

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43	ELPAC CBA Field Test Trainings	ELPAC	Video, Webcast, or Online Modules	No cost	ELPAC coordinators, test examiners from LEAs participating in the field test	1,000 for Webcasts, n/a for video or online modules	1	English, CC	4 hours	elpac.org	July-August 2019	2019–20
44	State Initial ELPAC CBA Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain focusing on the Initial PPT in 2018 and CBA in 2019–2022	ELPAC	In-person Workshop	No cost	ELPAC coordinators, test examiners	100	20	English, ASL	1 day	4 North, 8 Central, and 8 South	April 2019	2018–19, 2019–20, 2020–21, 2021–22
45	Regional training for Initial ELPAC Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain focusing on the Initial PPT in 2018 and CBA in 2019–2022	ELPAC	In-person Workshop	No cost	All County Office of Education Staff	100	1	English, ASL	1 day	Sacramento	April 2019	2018–19, 2019–20, 2020–21, 2021–22
46	State Initial Alternate ELPAC Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain focusing on the Summative Initial Alternate ELPAC	Alternate ELPAC	In-person Workshop	No cost	ELPAC coordinators, test examiners	100	10	English, ASL	1 day	2 North, 3 Central, and 5 South	April 2021	2021–22

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47	State Summative Alternate ELPAC Administration and Scoring Trainings: Provide an overview of test administration and training to score the Speaking domain focusing on the Summative Alternate ELPAC	Alternate ELPAC	In-person Workshop	No cost	ELPAC coordinators, test examiners	100	20	English, ASL	1 day	4 North, 6 Central, and 10 South	October/November 2021	2021–22
48	CAASPP Post-Test Webcast: Principles of Scoring and Reporting	CAASPP	Webcast	No cost	CAASPP coordinators	1000	1	English, CC	1 hour	Virtual and archived on caaspp.org	May 2019	2018–19, 2019–20, 2020–21, 2021–22
49	CAASPP The Results are in—Now What? Workshops: Provide guidelines for score interpretation; includes information about how to use assessment results to inform teaching and learning	CAASPP	In-person workshop	Yes, fee TBD	CAASPP coordinators, teacher leaders, educators	75-100	8	English, ASL	4.5 hours	2 North, 2 Central, and 4 South	May – June 2019	2018–19, 2019–20, 2020–21, 2021–22
50	CAASPP The Results are in—Now What? Workshops: Provide guidelines for score interpretation; includes information about how to use assessment results to inform teaching and learning	CAASPP	Webcast	Yes, fee TBD	CAASPP coordinators, teacher leader, educators	1000	1	English, CC	4.5 hours	Virtual and archived on caaspp.org	May – June 2019	2018–19, 2019–20, 2020–21, 2021–22

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51	ELPAC CBA Overview: Provides general information about the ELPAC, including purpose, elements, how it is administered, and resources	ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	10 – 20 minutes	elpac.org	June 2019	Annual updates as needed
52	Introduction to the Initial ELPAC: Provides general information about the Initial ELPAC (PPT in 2019 and CBA in 2020–21)	ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 – 10 minutes	elpac.org	June 2019	Annual updates as needed
53	ELPAC Understanding your Summative Student Score Report: Provides an explanation of the Summative ELPAC Student Score Report	ELPAC	Video	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5 – 10 minutes	elpac.org	June 2019	Annual updates as needed

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Number	Name and Description of Training	Assessments Included	Type of Training	Cost to Participants	Proposed Primary Audience	Estimated # of Participants per Session	Planned # of Sessions	Available Languages	Estimated Durations	Planned Locations	Estimated Timeframe to Provide Training and Year of Initial Training	School Years Provided
54	ELPAC Accessibility Resources: Covers the purpose and importance of accessibility, available universal tools, designated supports and accommodations	ELPAC	Video	No cost	ELPAC coordinators, test examiners. May combine with CAASPP in future administrations	n/a	1	English, CC	10 – 20 minutes	elpac.org	June 2019	Annual updates as needed
55	ELPAC How to Use the Local Scoring Tool	ELPAC	Video	No cost	ELPAC coordinators, test examiners	n/a	1	English, CC	5 – 10 minutes	elpac.org	June 2019	2019–20, Annual updates as needed
56	Initial and Summative Alternate ELPAC CBA Operational Pilot Test Overview	ELPAC	Video or Webcast	No cost	ELPAC coordinators, test examiners	n/a for video, 1,000 for Webcasts	1	English, CC	1 hour	elpac.org	May 2020	2020–21
57	Introduction to the Alternate ELPAC CBA: Provides general information about the Alternate ELPAC CBA	Alternate ELPAC	Video or Webcast	No cost	ELPAC parents, students, educators	n/a	2	English and Spanish. Translations will be done through the Auto Translate feature in the YouTube closed caption settings.	5-10 minutes	elpac.org	June 2021	2021–22
58	Additional Training #1	TBD	Video or Webcast	TBD	TBD	n/a for video, 1,000 for Webcasts	1	TBD	1 hour	TBD	TBD	2019–20, 2020–21, 2021–22
59	Additional Training #2	TBD	Video or Webcast	TBD	TBD	n/a for video, 1,000 for Webcasts	1	TBD	1 hour	TBD	TBD	2019–20, 2020–21, 2021–22

DRAFT CAASPP Scope of Work B
for the 2018–19 through 2021–22 Administrations

Number	Name and Description of Training	Assessments Included	Type of Training	Cost to Participants	Proposed Primary Audience	Estimated # of Participants per Session	Planned # of Sessions	Available Languages	Estimated Durations	Planned Locations	Estimated Timeframe to Provide Training and Year of Initial Training	School Years Provided
60	Additional Training #3	TBD	Video or Webcast	TBD	TBD	n/a for video, 1,000 for Webcasts	1	TBD	1 hour	TBD	TBD	2019–20, 2020–21, 2021–22
61	Additional Training #4	TBD	Video or Webcast	TBD	TBD	n/a for video, 1,000 for Webcasts	1	TBD	1 hour	TBD	TBD	2019–20, 2020–21, 2021–22
62	Additional Training #5	TBD	Video or Webcast	TBD	TBD	n/a for video, 1,000 for Webcasts	1	TBD	1 hour	TBD	TBD	2019–20, 2020–21, 2021–22

TASK 3: Technology Services

As part of the Assessment Technology Platform solution for California, the California Assessment Delivery System includes all components required to deliver the Smarter Balanced and non-Smarter Balanced assessments which include: CAST, CSA, CAAs, ELPAC CBA and ELPAC paper-pencil test (PPT), and Alternate ELPAC CBA. ETS will continue to enhance the California Assessment Delivery System during the terms of the contract so as to implement efficiencies and improve user experience with the system. For example, ETS will implement and leverage a dedicated California Identity Management system for single sign-on between the California Assessment Delivery System and other managed systems hosted by authorized partners. In addition, ETS will work with the CDE's designated partner for the new CERS to report CAASPP and Summative ELPAC results. Figure 1 provides a diagram of the overall system for the California Assessment Technology Platform supported by ETS.

Figure 1. California Assessment Technology Platform
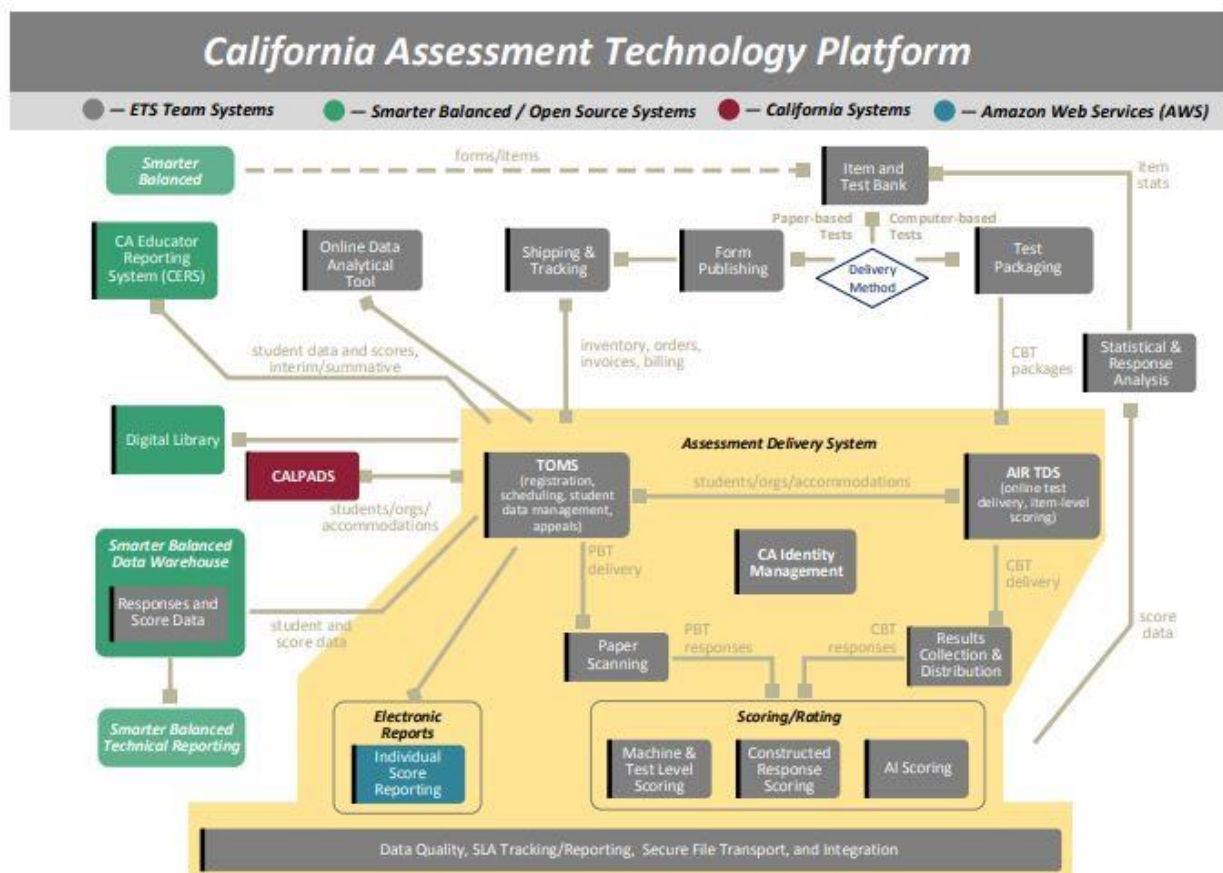
ETS will provide and support Practice and Training Tests for each non-Smarter Balanced online assessment developed under this contract (see Table 17). The

CAASPP Practice and Training Tests are administered through the AIR TDS. For the Summative ELPAC, the existing Practice Tests will continue to be available for each grade band on http://www.elpac.org/ through the 2018–19 administration. When the Summative ELPAC CBA is operational, ETS will develop new Practice and Training Tests, which will be available online through the AIR TDS. The release of the ELPAC CBA Practice and Training Tests is December 2019. ETS will develop new Practice and new Training Tests for the Alternate ELPAC CBA before its first administration in spring 2021 as an operational field test. The practice and training tests are maintained on a server that is separate from the summative assessments and Smarter Balanced Interim Assessments.

ETS will work closely with the CDE to evolve the existing high-capacity test delivery system, used for the 2017–18 administration, to meet future requirements. The California Assessment Delivery System will, at minimum, deliver the following, annually:

- Smarter Balanced Summative Assessments to over 3.2 million students

- Smarter Balanced Interim Assessments to over 6.4 million students

- CAST to over 1.5 million students

- CAAs to about 50,000 students

- CSA to approximately 22,500 students in grades three through eight and high school

- Summative ELPAC CBA to approximately 1.2 million students (beginning in 2019–20)

- Initial ELPAC CBA to approximately 300,000 students (beginning in 2020–21)

- Summative Alternate ELPAC CBA to eligible students (beginning in 2021–22)

- Initial Alternate ELPAC CBA to eligible students (beginning in 2021–22)

ETS will support test delivery of these assessments to approximately 10,000 schools in approximately 1,900 LEAs statewide that will use a wide variety of online testing devices (e.g., desktop computers, laptop computers, tablets).

ETS will continue to support necessary changes and enhancements to the California Assessment Technology Platform as approved by the CDE through the Change Control Management process described in Task 1.1.A.

3.1. Requests for Paper Tests

3.1.A Special Requests for Smarter Balanced Paper Tests and CAST Paper Tests

Annually ETS will work with the CDE to collect information on schools, and their corresponding LEA, that need to administer the Smarter Balanced Summative Assessments and, beginning in the 2019–20 administration, CAST in paper due to at least one of the following:

- Students with special needs who cannot access the online assessments and require braille, large print, or regular print accommodations

- Schools experience unexpected, temporary technology issues that are beyond the school's control

During the annual update of LEA coordinators described in Task 2.1, ETS will incorporate the Special Requests for Smarter Balanced and CAST Paper Tests Survey, which will be released annually along with the Superintendent Designation Form, Security Affidavit, and Security Agreement. The Special Requests for Smarter Balanced and CAST Paper Tests Survey will be an online form. ETS will provide the draft Special Requests for Smarter Balanced and CAST Paper Tests to the CDE for the standard review and approval process described in Task 1.9.

ETS will continue to offer paper versions of the Smarter Balanced Summative Assessments and, beginning in the 2019–20 administration, CAST to students with IEP and/or 504 Plans who require the use of paper tests or for those individual students who repeatedly experience difficulty accessing the test due to technical issues that cannot be resolved within two weeks by the CalTAC and/or technical services/support teams.

3.1.B. Requests for ELPAC Paper-Pencil Tests (2018–19 and 2019–20 only)

ETS will continue to support the Summative and Initial ELPAC PPTs until the ELPAC CBA is operational. LEA coordinators will be required to order paper materials through TOMS for the 2018–19 Initial and Summative ELPAC and the 2019–20 Initial ELPAC to ensure timely delivery. ETS will work with the CDE to determine the dates for the ordering windows for both the Summative and Initial ELPAC. During the ordering windows, LEA coordinators will be able to use TOMS to submit their ELPAC paper test material orders. LEAs that submit their orders during the Round 1, Round 2, and supplemental order windows will receive their material no later than one week prior to the start of their testing window. TOMS will support Round 1 and Round 2 ordering windows, which allow LEA coordinators to submit test material orders for each of their schools based on the number of ELs or TBDs in each grade, as well as multiple supplemental orders, where coordinators can place orders for additional test materials or ancillary materials.

To facilitate this process, TOMS will provide default volumes in the Round 1 and Round 2 ordering windows based on CALPADS student data and historical volumes from the

previous year's administration, and will also provide warnings when coordinators appear to be ordering too many or too few materials for their LEA.

In addition, as a fee-based ancillary service paid by the LEA, LEA coordinators will be able to use TOMS to submit orders for optional Pre-ID labels. LEA coordinators can run a report in TOMS prior to ordering their labels in order to verify student information. Orders will be processed daily to confirm timely delivery of the labels.

3.1.C. Special Requests for ELPAC Paper-Pencil Tests (2019–20, 2020–21, and 2021–22)

The CBA will be available in 2019–20 for the Summative ELPAC assessment and in 2020–21 for the Initial ELPAC assessment. Once these assessments are online, a process similar to the special requests for Smarter Balanced and CAST paper tests outlined in Task 3.1.A, regarding special needs and for unexpected, temporary technical issues that cannot be solved, will be followed to obtain PPT versions.

3.2. Assessment Delivery System

The solution supports both summative and interim Smarter Balanced assessments as well as the CAAs (ELA, mathematics, and science), CAST, CSA, the Summative ELPAC, Initial ELPAC, and new Alternate ELPAC CBA. The solution will employ AIR's proprietary test delivery system (TDS), ETS's TOMS, scoring systems from ETS and MI, and an online reporting tool from AIR. The solution also will include the migration from the AIR online reporting tool to the CERS. ETS will work with the CDE and Smarter Balanced on the timeline for the use of the CERS while maintaining the existing Online Reporting System (ORS) reporting solution until June 30, 2021. The TDS can support display of messages, navigational tools and test content in multiple languages for CSA. In addition, ETS will develop new items that will make use of voice capture technology within TDS for the Speaking domain in the ELPAC assessments. Capturing the voice responses will allow ETS to score the speaking responses for both the initial and summative assessment for validation of local scoring.

As part of the continuous improvement process, ETS will work with the CDE to identify tools and propose recommendations and solutions that improve the California Assessment Delivery System. The tools may be different from the solution currently employed for the California Assessment Delivery System. ETS will provide the CDE with an impact analysis for review and approval. The impact analysis will include the proposed schedule and cost impact for new tools and applications that are being considered for implementation.

ETS will also collaborate with the CDE to determine the technology services summary information required for reporting purposes and will develop and implement a mutually-agreed upon format. ETS understands that the CDE may use the technology services summary to report to the SBE, the California DOF, and other stakeholders as needed.

3.2.A. Project Management Plan

(This section has been moved to Task 1.1.)

3.2.B. System Requirements

ETS will implement the California Assessment Delivery System for this program consistent with contract requirements. ETS will plan each meeting to efficiently use the time of the CDE staff, and program management and technology staff to accomplish the tasks identified.

Annually, ETS will schedule a series of joint requirements sessions for the California Assessment Delivery System to review and discuss the minimum requirements agreed upon by ETS and the CDE. Request for Submission (RFS) Table 3.1.1 is included as Appendix C—Minimum System Requirements for reference. ETS will be responsible for providing the initial requirements document, which will describe the known CAASPP Appendix C—Minimum System Requirements and ELPAC requirements and how ETS proposes to address those requirements. ETS proposes to hold joint requirements sessions before the semi-annual planning meetings each year. At each joint requirements session, ETS will use and refine the initial requirements document to establish that the requirements meet or exceed what is needed for the administrations included in the terms of this SOW. The revised requirements document will also include a plan by which periodic reviews of the requirements will be conducted to confirm that they continue to meet the functional and technical requirements needed for the California Assessment Delivery System.

From time to time, there may be changes to state or federal policies or Smarter Balanced requirements that would have an immediate impact on the system (e.g., yearly updates by the CDE to CAASPP Matrix One and ELPAC Matrix Four). The revised requirements also will include a process for ad hoc requirement reviews to address these changes in a flexible but immediate manner.

ETS program managers will plan and facilitate the joint requirements session, which will include topics under each functional area of the solution such as technology, assessment development, research, delivery, operations, and reporting. ETS will review the proposed schedule of deliverables and implementation schedule and obtain specific information, data, and criteria in order to successfully implement the solution. Initial ELPAC testing begins in early July, with Summative ELPAC testing starting in early February annually. The CAASPP testing begins in early September. The system will be designed to support the two separate ELPAC/CAASPP administration years during the July – September months annually. Prior to each administration year, ETS will also present the revised requirements as defined and agreed to in the joint requirements sessions with the goal of receiving the initial go-ahead to implement the California Assessment Delivery System. Should additional discussions about the requirements be needed, ETS will schedule and conduct additional joint requirements sessions until the CDE approves the solution for implementation. ETS will submit business and functional

requirements and associated artifacts on an agreed upon schedule (for each testing year) in advance of mutually planned release schedules.

ETS's technology team will also participate in semi-annual planning meetings, as described in Task 1.3, in Sacramento to review and confirm the SOW. The purpose of the meeting will be to plan any changes to the SOW, system enhancements and fixes, and the timelines to incorporate the changes for the upcoming test administration year. As described in Task 1.1, ETS will submit the revised systems requirements documents by date agreed upon by the CDE and ETS, including business requirements, functional requirements, requirements traceability matrix (RTM), and user acceptance testing (UAT) plans through the gatekeeper for approval for each release cycle. After a release is deployed to production, the final requirements are submitted via gatekeeper to reflect the "as built" software that was deployed to production.

In addition to semi-annual planning meetings, ETS's technology teams will also participate in regularly scheduled technical/data exchange meetings, co-facilitated by the ETS Technology Manager and program manager that will anchor communication between all parties and appropriate technical personnel. These weekly meetings will provide the forum for communication with the CDE about project activities and technical items/issues.

ETS will document all business, technical, and functional requirements—new and updated—that are captured in the joint requirements sessions. ETS will then implement these, after the CDE's approval, following the ETS software development lifecycle (SDLC) methodology. The ETS SDLC process is a combination of waterfall and agile software development processes.

3.2.B.1. Assessment Delivery System Architecture

The solution focuses on the following seven major domains: assessment planning and development, registration, scheduling and delivery, support, scoring, reporting, and analysis (see Figure 2. California Assessment Delivery System).

Figure 2. California Assessment Delivery System
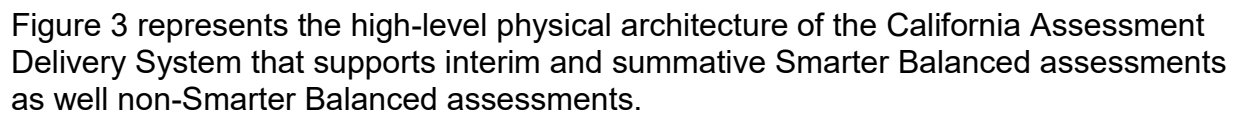
The ETS solution supports all operational domains, from test development to scoring and reporting. ETS's system consists of fully integrated individual component services that provide a high performance and robust solution for the administration of Smarter Balanced and non-Smarter Balanced assessments for California.

Figure 3 represents the high-level physical architecture of the California Assessment Delivery System that supports interim and summative Smarter Balanced assessments as well non-Smarter Balanced assessments.

Figure 3. Scalable Architecture of the California Assessment Delivery System
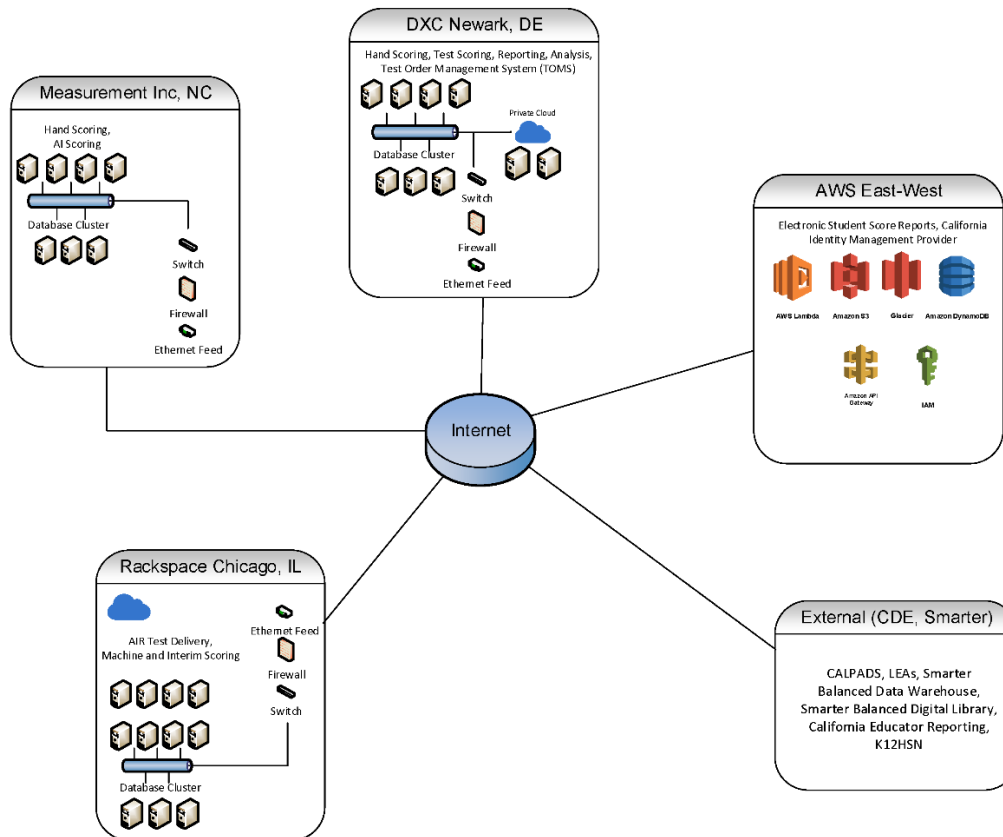
The California Assessment Delivery System will use a single proprietary solution (i.e., AIR Test Delivery System) that meets the general Smarter Balanced and non-Smarter Balanced assessment requirements. ETS will further clarify with the CDE that this implementation addresses any California-specific variations allowable through the Smarter Balanced state procedures manual. Where the solution integrates with external Smarter Balanced systems, such as the Digital Library, ETS will use the defined standards and formats for data exchange.

The configuration specifications development process requires making a number of important decisions, often in a short period of time. ETS will communicate changes to the CDE as soon as Smarter Balanced identifies and communicates those changes to ETS. ETS will coordinate with the CDE to schedule the systems configuration meetings to work through the necessary details of the solution specifications.

During these specifications meetings, ETS will work through the configuration decisions needed at one time. When applicable, ETS will provide screen shots and other supporting documentation to allow participants to visualize how different options will

look in the various solution components. Decisions to be made during the configuration specifications meetings will include, but are not limited to:

- test names and the order of tests listed;

- the dates during which the student test window will be open, including any scheduled downtime for maintenance and updates;

- which test settings that the test administrator can change in the test administration interface at the time the student takes a test, and which test settings must be changed in advance in TOMS;

- what values are allowed for each tool;

- the content of the messages that will be displayed to the student at various times during a testing session; and

- which forbidden applications should be included in the check performed on the student's computer prior to testing.

ETS will record all decisions made during the specifications development process. ETS will provide the documentation to the CDE summarizing major decisions and any issues for which a final decision was not made during the meetings.

3.2.B.2. Interface Requirements

The California Assessment Delivery System provides a number of touch points with external systems and components as required by the CDE and/or Smarter Balanced policies. To meet those needs, systems will support scalable and reliable integrations with other systems and technologies by utilizing standards-based interfaces in collaboration with third-party vendors for support wherever possible. For Smarter Balanced assessments, ETS will use the plug-and-play XML data exchange for the information about items and test packages needed to support test scoring. Non-Smarter Balanced computer-based assessments will also use the Smarter Balanced test results transmission (TRT) format for transmitting student responses required for scoring and reporting activities. If a non-Smarter Balanced computer-based assessment requires a different format to best support the items types developed for those assessments, ETS will work to confirm that the system can support the formats, prior to the item development process.

The California Assessment Delivery System consists of a series of integrated components. Even still, the CDE, LEAs, and schools will be able to access the features needed to administer, manage, operate, and conduct test delivery using a single sign-on. This enables these components to appear to users as a single integrated system. ETS will work with Smarter Balanced to provide a solution that allows users to log onto the California Assessment Delivery Systems and the Smarter Balanced systems using a single sign-on.

Smarter Balanced Implementation Readiness Package (IRP)

ETS has verified that the delivery system conforms with the Smarter Balanced IRP version 1.0, which currently covers capabilities in test administration and item level score results delivery. As new features are available from Smarter Balance that apply to CAASPP, and upon a request from the CDE, ETS will provide evidence, including the Summary Performance Report produced by the Implementation Readiness Package, as well as electronic access to the simulated assessment, to allow the CDE to verify that: items and applicable tools, supports, and accommodations rendered correctly; items were scored correctly; and results were correctly delivered to the Smarter Balanced data warehouse.

CALPADS

ETS will verify with the CDE ETS's ability to accurately accept data extracts from CALPADS, import that data into TOMS, and provide appropriate exception reporting to the CDE. ETS will configure TOMS to process daily CALPADS updates. ETS anticipates receiving three CALPADS extract files nightly via Secure File Transfer Protocol (SFTP). Extract files will include Organizational Data, Student Exit and enrollment/demographic data.

ETS will coordinate with the appropriate CDE staff to facilitate the secure upload of CALPADS data extracts for use in all California assessments. ETS will also verify the handling procedures for approval of paper-pencil test materials and special forms.

In addition, for the Initial ELPAC CBA and Initial Alternate ELPAC CBA, the California Assessment Technology Platform will calculate the scores instantly, and, following the score calculation, TOMS will immediately determine the new English Language Acquisition Status (ELAS) based on each student's performance. The new ELAS will be available to send back to CALPADS for incorporation as part of the student's data. ETS proposes sending this data to CALPADS daily to confirm that the student's information remains up-to-date.

ETS will process the CALPADS files within 24 hours of successful receipt from the CDE. ETS will continue to notify the CDE and CALPADS team whenever issues are identified in processing the daily files. In addition, ETS, in collaboration with the CDE, will develop a CALPADS Data Transfer Early Response Plan that will include ETS and CDE contacts as well as criteria for notification and for developing a process for evaluating data processing issues to reduce future risks with the data transfer. ETS will provide the following notifications when processing the CALPADS data:

- Notify the CDE via email by 8 a.m. Pacific Time (PT) if one or more of the CALPADS extract files fail to upload to the FTP site.

- Notify the CDE via email within two hours of processing whether ETS has received and has processed the file and the number of records processed.

- Notify the field via email and system alerts to http://www.caaspp.org/ and http://www.elpac.org/ if there are any issues with the files that affect the field.

LEA System Compatibility

ETS will continue to propose to the CDE ways to optimize the appropriate data capture from LEAs in the CALPADS interface, so that the regular extracts provided to support the assessments accurately reflect the CDE-approved supports and accommodations. ETS will also continue working closely with the CDE by providing a TOMS user interface that provides the LEAs with the flexibility to update student support or accommodations needs directly. To be consistent with the California assessment system, ETS will consult with the CDE to establish the protocols and permissions needed to allow for this flexibility and configure TOMS accordingly.

3.2.B.3 Data Security

ETS maintains dedicated staff with responsibility for information security, physical security, test security, privacy, disaster recovery/business continuity, and internal audit. These staff members communicate and collaborate via a corporate-level Security Steering Committee of leaders responsible for each function, which ETS's chief information security officer leads. ETS will comply with the CDE's Data Management Requirements as described in Exhibit D of this contract.

Data Security Plan

ETS will provide all interfaces with the most stringent security considerations in mind, including interfaces for data encryption at rest and in transit for databases that store test items and student data. The California Assessment Delivery System will implement strong encryption (in transit and at rest) consistent with the most recent version of encryption guidelines published by the National Institute of Standards and Technology (NIST), (at least equivalent or better), to protect confidential information handled by the system. This information includes student registration information, student identifiable results information, test items, and other information as identified by applicable Federal, State of California, and the CDE laws, regulations, or policies. Whenever feasible, cryptographic modules shall be validated to the Federal Information Processing Standard (FIPS) 140-2. In rare instances where encryption cannot be implemented, compensating control(s) or alternatives to encryption will be in place. Compensating controls and alternatives to encryption must be reviewed on a case-by-case basis and approved in writing by the state entity ISO, after a thorough risk analysis.

ETS will manage, maintain, transport, and appropriately secure data storage and backup files. Also, ETS will employ industry-standard encryption to protect personally identifiable information both when it is in storage and when it electronically transfers across a public network. ETS will maintain that data in a portable format as agreed upon with the CDE.

ETS will meet the CDE's expectations to develop and execute a data security plan that follows NIST SP 800-18 to comply with the applicable data security requirements outlined in the final system requirements that may be updated annually. Discussions about the data security plan and user roles and permissions will be an integral part of the joint requirements sessions, and ETS will document decisions in the requirements document for the CDE's approval.

Working with Subcontractors and Vendors

ETS's company policy mandates an Inter-Enterprise Security Assessment (IESA) of external organizations whenever their work impacts any of the following: sharing sensitive or critical data, communicating sensitive or critical data via non-ETS networks and systems, or interconnecting ETS networks and systems with others. ETS requires subcontractors and vendors by contract to maintain agreed-upon security controls and to provide periodic control assurance.

Providing for User Roles and Permissions

The California Assessment Delivery System will feature system access control features and authentication of users using industry-standard user access, authentication methods, and encryption. The California Assessment Delivery System includes a dedicated California Identity Management System (CIMS) that allows for numerous user roles and permissions based on the functions that each user must perform in order to complete their responsibilities for the California assessment system. Through the CIMS (Figure 4.), users will be able to seamlessly navigate between the modules of the Assessment Delivery System and also will be able to navigate to CDE-authorized third-party systems such as the Smarter Balanced Digital Library and the California Educator Reporting System (CERS). The CDE will have the flexibility to authorize other third-party systems that are not part of the California Assessment Delivery System to federate with the CIMS to allow for seamless navigation for California-provisioned users without the need for them to register or maintain a separate set of login credentials. Third-party vendor integration will follow a standards-based approach with options to use SAML 2.0 and/or OAuth. User roles will continue to be discussed annually as part of the business requirements process. As ETS moves towards integrating the systems for the California programs, ETS will work with the CDE to review user roles, with the goal of simplifying and unifying roles where appropriate. The access control features will restrict access to information that is outside the responsibility of the assigned user role when the user has numerous, different roles. ETS will coordinate with the CDE to schedule meetings to review, refine, and add user roles and permissions for finalization annually prior to the testing year. The CIMS approach is expected to follow a dedicated Identity Provider with federation approach as outlined in Figure 4.

Figure 4. Dedicated Identity Provider with Federation and Single Reporting System
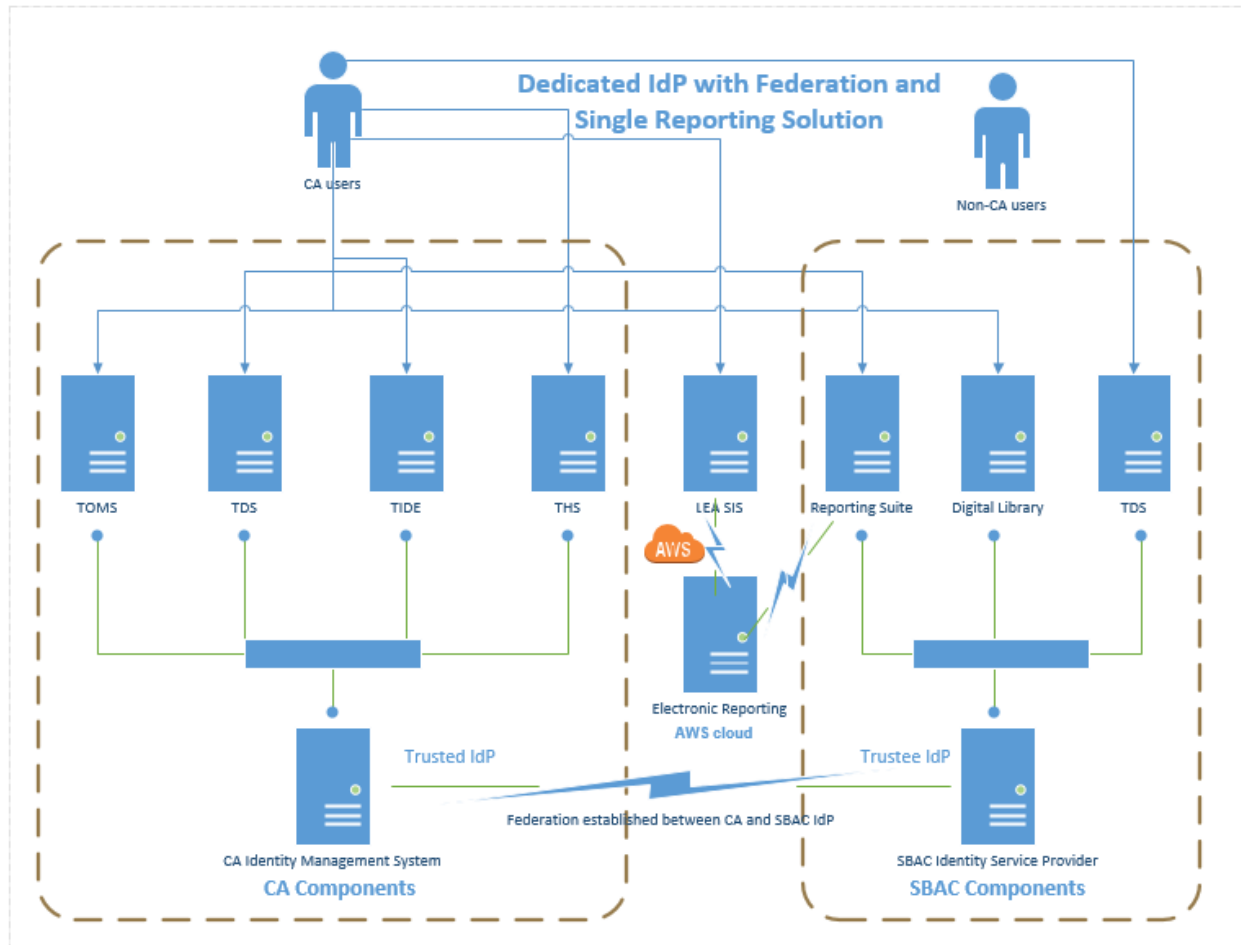
3.2.B.4. System Development Process

At the CDE's direction, ETS will provide process maps, standard operating procedures, templates, definitions of roles and responsibilities, technical documentation utilizing templates, and project schedules to the CDE on an annual basis. ETS will continue to provide performance testing results annually prior to opening the testing window in the January timeframe. ETS will provide the CDE with written confirmation of compliance with interoperability standards.

Design Process

Led by the ETS technology manager, ETS will perform design at two levels:

- **Solution Architects** will tailor a high-level solution design, designing for innovation and capacity from the start. Their work will provide the big picture, establish that all bases are covered, and confirm that all involved parties are

identified and collaborating to make the California assessment system successful. The solution architects' high-level solution design includes: (1) a high-level use case diagram identifying the key capabilities/domains of the solution, (2) activity diagrams depicting flow of responsibilities across software applications, (3) deployment diagrams identifying all participating applications and all interfaces, and (4) other Unified Modeling Language diagrams and text as needed to describe the solution. These solution architects work closely with the various development teams in scope for the solution.

- **Application Architects** on these development teams then design their respective software applications and interfaces based on the solution design, verifying that their component fits in with the others.

Development and Testing Process

ETS's SDLC teams will continuously improve, support, and enforce smooth and effective operation end-to-end in the technology components of this project. This team will work closely with all IT staff across ETS to establish smooth operation, quality output, and exceptional communication. ETS will perform an analysis at two levels. For the first, at the business level, a specialized team of business analysts will work with the CDE to capture, confirm, and analyze the CDE's needs; at the second, at the software level, system analysts will determine the functions of the systems based on the business needs. Through ETS's documentation practices, ETS will capture and account for all of the CDE's functions.

Validation Process

ETS will follow industry best practices in software development and coding for the California Assessment Delivery System. This means ETS will use continuous integration, unit testing, code reviews, separation of environments (e.g., development, various levels of testing, and production), and version control. ETS will use repositories to systematically control all versions. ETS will use reference architecture to guide the use of technologies to keep abreast of the latest technologies, verifying that external support is available and keeping IT focused and efficient. ETS will also verify operational readiness of software development by: (1) developing knowledge scripts for use by CalTAC personnel on how to route issues raised by end users, (2) documenting/communicating how to operate the software to the operations team, and (3) updating the software's disaster recovery plan as appropriate.

ETS's software development teams perform rigorous testing of their developed software, including unit testing, dev-to-dev integration testing, and functional testing. ETS will complement that with additional rigorous testing by a dedicated group specializing in software testing. This group provides a robust suite of testing, including: (1) functional testing, (2) integration testing, (3) performance testing, (4) security testing, and (5) accessibility testing. Accessibility testing will be performed on Public Web Reporting but ETS proprietary systems will not be included. In particular, in the area of

performance and load testing, this group will verify that ETS meets the scalability needs of California through capacity testing, extended period testing, stability testing, stress testing, and functional verification under load testing, aggregate testing, and increasing load testing. Dedicated performance testers will tune specialized performance testing tools for the California Assessment Delivery System to account for the anticipated load.

ETS's software testing group will perform progression and regression testing using a combination of commercial, open source, and custom developed tools. This testing will follow a rigorous and robust process. ETS will strictly manage defects and maintain traceability between requirements and test cases in order to verify complete coverage. ETS's testing group will leverage testing automation, when appropriate, through scripting and specialized testing tools in order to bring great efficiencies and value to the CDE by saving on manpower and enabling robust regression testing—all while utilizing highly skilled testers to weed out those issues that tools can overlook.

3.2.B.5. System Implementation

The System Implementation Plan will be part of the PMP, and ETS will discuss this plan as part of the joint requirements sessions before each semi-annual planning meeting. Following each semi-annual planning meeting, ETS will refine the System Implementation Plan for final review and approval by the CDE.

Overview of Hosting System

ETS will use two proven hosting providers to meet the CDE's requirements: Rackspace® and DXC Technology.

System Implementation Readiness Assessment Methodology and Schedule

To cover system implementation readiness assessments, or the Operational Readiness Review (ORR), a dedicated team of release managers carry out ETS's Release Management (RM) process. As the pilots, field tests, and operational computer-based assessments are conducted, ETS will analyze historical test taker estimates as well as survey data from LEAs about the target test taker populations to plan for a capacity that will support continuous systems operations for all computer-based assessments.

Implementation Schedule, including Field Tests and Pilots

ETS will work closely with the CDE and will use the RM process to establish the implementation schedule for all administrations as outlined in Task 7 and Table 18.

Overall Resources Needed to Support the Implementation Effort, including Hardware, Software, Facilities, Materials, and Personnel

By means of a formal resource planning process, ETS proactively determines and regularly re-assesses anticipated resource capacity based on California's estimates for computer-based assessments, test taker volumes, and expected peak volumes. ETS will also use historical resource usage data from the annual administrations to refine

capacity estimates. As the pilot tests, field tests, and eventually the implementations of the new computer-based assessments are completed, ETS will analyze historical test taker estimates as well as survey data from LEAs about the target test taker populations to plan for a capacity that will support continuous systems operations for all computer-based assessments. Capacity planning will enable the right-sizing of the infrastructure capacity in order to scale rapidly and handle spikes in demand.

Security Features Associated with the System When it is Implemented, Including Security during Implementation

ETS has built security into the production environments and the technologies used and software developed. ETS's software development process and software testing process includes a comprehensive security framework. This risk-based framework focuses on minimizing vulnerability, increasing awareness, and developing proficiency. In order to establish this level of security, ETS assesses every component of its systems for vulnerability. ETS utilizes Threat Modeling analysis and Attack Tree analysis, which are methods to analyze designs for threats and mitigate them.

Simultaneously, ETS will employ a few different methods of security testing, including vulnerability testing, penetration testing, and vulnerability code review. These methods utilize numerous state-of-the-art automated tools as well as manual security assessment and hacking techniques performed by dedicated and trained security professionals. These methods also involve comprehensive testing and analysis steps.

Driving software development and providing a measurement base for testing, ETS will use tools to generate security requirements tailored to individual systems based on their characteristics. Open Web Application Security Project (OWASP) best practices, which are the industry leader in security standards, guide software development to verify that the software is secure. ETS also has an Information Protection Office (IPO) group in IT with oversight over all aspects of security, including software, hardware, network, and personnel security.

Performance-monitoring Tools and Techniques

ETS will employ a number of strategies to verify ongoing systems performance, including monitoring of system availability and providing reports of online system usage to the CDE. ETS can configure the metrics and thresholds for monitoring based on the CDE's needs during start-up planning and annual project planning engagements.

ETS will include detailed planning steps identified during project initiation with the CDE to identify the most effective parameters for the assessment programs, so that systems are configured to capture and provide reports that are useful for the CDE. During subsequent project meetings, ETS will establish regular reporting practices and will periodically review the elements being captured and reported out, and ETS will provide the most relevant and actionable data possible for the CDE and other stakeholders.

Site-specific Implementation Requirements

Outside of preparation of the computer labs at the schools, the test delivery system has no site-specific implementation requirements. ETS will provide a diagnostic tool that may be used by LEAs and schools to verify that they have the bandwidth to support the desired number of testers.

System Acceptance and Sign-off Process

To accomplish system acceptance and sign off, ETS will deploy, before each new release, systems software to a user acceptance testing (UAT) environment for a full cycle of testing with the CDE. ETS develops and CDE reviews the user acceptance testing to confirm that systems meets the CDE's requirements. Upon successful completion of user acceptance testing, a joint review meeting takes place to confirm that the release is ready to move to production. Software is deployed directly from the UAT environment to production on a mutually agreed upon release schedule. Final approval of user acceptance testing triggers final deployment of the system.

3.2.B.6. User Experience

ETS will use a rigorous applications user experience design process, which includes checkpoints during the following phases: architectural design, requirements gathering, user interface (UI) design, usability testing, piloting, and operational delivery. Application design and development will follow industry best practices for delivery on multiple platforms and devices, leveraging World Wide Web Consortium (W3C®), Microsoft®, and Apple® human interface guidelines.

For accessibility, ETS will adhere to the Web Content Accessibility Guidelines (WCAG) 2.0, Level A & AA. ETS will audit and validate application content and interfaces to confirm they are compliant with international web standards. The WCAG 2.0 guidelines meet or exceed the WCAG 1.0 and Section 508 guidelines set forth in the California Government Code section 11135 and policies included in the CDE's Web Accessibility Standards. As part of this contract, the development process will incorporate the checklists provided on the CDE website (http://www.cde.ca.gov/re/di/ws/webstandards.asp) into the development checkpoints.

ETS will include detailed plans for conforming to the User Experience requirements and will include these plans as part of the PMP document described in Task 1.1.A. The User Experience plans will outline the following:

- Consistent look and feel

- Name of student displayed on workstation

- Single sign-on and easy navigation

- Best practice standards

- Accessibility standards

- Online help

- Identical interfaces for administrators and students

3.2.B.7. Technical Assistance Center (Technology Support)

ETS provides Tier 1, 2, and 3 support for the California Assessment Delivery System via telephone, email, and customer-initiated chat.

For telephone support, ETS uses a Verizon®-hosted implementation of Avaya Contact Center v.7.0. The ETS CalTAC can support the staff required to quickly respond to contacts and can shift calls to another ETS Help Desk location if needed for disaster recovery purposes. Additionally ETS will use the Verizon-hosted cloud service to provide additional services. The Avaya and Verizon platforms have back-up technologies in place to continue to route calls in the event of a localized issue. The ETS Help Desk solution includes audio recording of 100 percent of inbound calls and call storage for six months.

ETS will use customer service analytic software (e.g., Oracle Service Cloud [OSC]) for email and chat response management. ETS's email and chat software has the capability to separate Tier 1, 2, and 3 contact types and responds to them based on set timeframes.

ETS will provide escalation to Tier 2 and Tier 3 via telephone, email, or chat transfer. ETS logs all contacts and their statuses as cases into the Oracle Service Cloud (OSC) system by institution, LEA, and individual contact.

ETS will maintain email addresses for various groups such as the LEA and CDE information technology groups to allow for quick dissemination of information. During each planning meeting, adding specific groups to the OSC workflow will be discussed.

Cases escalate to Tier 2 and Tier 3 support via a workflow system based on program and issue type, which allows ETS to determine when cases escalate to resolution groups. LEAs or other callers will receive a unique case number that they can reference their case against for all contact methods. The CRM system provides detailed level-reporting for the program overall or down to the school level. Reports on case escalation and case aging are available for review.

3.2.B.8. System Delivery Release Management

ETS will use the Release Management (RM) process for coordinating, tracking, and reporting on software releases, from new release identification through production implementation. The process consists of three release phases: planning, tracking, and approval.

ETS will schedule RM planning meetings based on the agreed-upon frequency among the stakeholders, including AIR, MI, and the CDE. The semi-annual planning meetings will provide a forum for ETS to verify that the California releases are well-understood, that risks are identified, and that mitigation plans are in-place. ETS will hold a joint meeting with parties to be identified by the CDE prior to a production release to review the migration steps, address risk, and obtain a consensus approval for the release. ETS will develop the System Delivery Release Management Plan during RM planning, which is the initial starting point of the RM process. ETS will continue to submit the as-built business/functional requirements after each software release is deployed to production.

As part of the Release Tracking Process, ETS will have a dedicated RM group that actively coordinates, tracks, and reports on software releases from the initial planning phase through to production deployment/implementation. The RM group will work directly with the ETS IT manager and program manager for CAASPP and ELPAC so that the team effectively coordinates tasks, requirements, and communications with the CDE. ETS will establish communication channels for release of information notification and will determine the stakeholders, communication frequencies, and information the stakeholders should communicate via these channels. RM also obtains the implementation approvals to initiate the production deployment process.

ETS will also continue to pursue opportunities for reducing downtime. For example, ETS will propose synchronizing the TOMS releases for CAASPP and ELPAC potentially with a single version of TOMS to align release schedules. ETS will work with the CDE to ensure that the major releases are scheduled for times that best align with the pre- and-post administration activities for both programs.

The two instances of TOMS (i.e., CAASPP and ELPAC) will remain in place for the 2018–19 administration. ETS will design the single instance of TOMS to encompass those application features which the separate versions of TOMS currently in production for the CAASPP and ELPAC programs cover. ETS will transition to a single instance of TOMS July 1, 2019, in preparation for the start of the ELPAC window.

ETS will develop the single instance of TOMS for California after careful analysis of each component and layer (e.g., database and database elements, servers, application interfaces, interfaces to other backend systems) across both current systems to improve the management of the systems and the efficiency of design and maintenance.

This consolidated system will support all the components of both of the existing TOMS systems, including materials management as well as separate enrollment and testing windows. Student and organizational data will continue to be fed by CALPADS to the combined TOMS on a daily basis.

The new TOMS will rollover to the new school year for ELPAC effective July 1st each year. From July 1st forward, all CALPADS enrollments for ELPAC students will be effective for the new school year. Also on July 1st, new ELPAC user roles will become

effective. Prior-year ELPAC coordinators will be purged, and new ELPAC coordinators will receive their credentials for the new year.

For CAASPP, the new TOMS will rollover to the school year effective no later than the first Tuesday after Labor Day each year. After the TOMS rollover occurs, all CALPADS enrollments for CAASPP will be effective for the new school year. Prior-year CAASPP coordinators will be purged, and new CAASPP coordinators will receive their credentials for the new year.

For the period of July 1st through September 1st each year, TOMS will support two school years concurrently. There will be no downtime for ELPAC users when the CAASPP rollover occurs, and there will be no downtime for CAASPP users when the ELPAC rollover occurs.

ETS will design this application to ensure that users who have both ELPAC and CAASPP roles will be able to distinguish which assessment from which school year they are working on.

ETS will distribute the release schedule to all identified stakeholders, who will then need to review and approve the Release Management Schedule and associated tasks respectively.

Other key Release Management processes and services include the following:

- Processes and procedures for communications, and coordination with internal and external partners, will be a critical component of the process, since ETS includes external partners such as Smarter Balanced, AIR, MI, and the CDE.

- Provide release artifacts that describe release content, testing requirements, and data sourcing to the CDE.

- Closely coordinate system outage management with the CDE so that it occurs when no testing is taking place, at night or on weekends, and will not impact batch processing to the extent possible.

- Provide environments that utilize the same code base to be used in production to the CDE for end user acceptance testing.

- Provide SDLC release testing procedures—including regression and integration testing with CALPADS, Smarter Balanced, and other external partners. The results of these procedures are leveraged as input to the testing processes for RTM and UAT which are reviewed and signed off on by the CDE prior to deploying a release to production.

- Provide a detailed and complete Migration document that details every step and every piece of information that is needed to deploy a release to production, including application and environment configuration, third-party

libraries/software/technologies, system accounts, connection details, complete steps to install the entire environment and the application, as well as rollback procedures.

- Provide the UAT plan, which documents processes and procedures for system delivery acceptance.

- Conduct post-production validation (PPV) using predefined manual and automated scripts to verify that the system is released correctly and that it is operational. ETS will also work with the CDE to develop and review the user validation scripts to verify that users deploy the system properly in the schools and that it remains accessible on all the supported devices used for accessing the Assessment Delivery System.

- Initiate a roll back to the previous state of the production environment in the unlikely event that the PPV is not successful. Once system engineers roll back the release, the software development team verifies the release once again to verify that the rollback was successful.

3.2.B.9. Performance

The California Assessment Delivery System has dedicated support for 750,000 concurrent users with expandable capacity to support 2,000,000 concurrent users using shared services. At the CDE's request, ETS will update the concurrent usage monitoring plan put into place as part of the 2017–18 administration and the process for updating and improving the plan annually. The draft monitoring plan will be submitted to the CDE in October annually and will be reviewed with the CAASPP/ELPAC Network Coordination team, which includes representatives from the CDE Technology Services Division and the California K12HSN. Should there be issues with performance during the administration of Smarter Balanced, non-Smarter Balanced, or ELPAC computer-based assessments, ETS has the capability to "turn off" or throttle back access to the Smarter Balanced Interim Assessments upon direction from the CDE.

The California Assessment Delivery System also includes existing network optimizations with the California K12HSN. ETS will continue the existing optimizations and will work with the CDE and the K12HSN vendor to continue improving performance whenever possible.

Performance Testing

ETS will conduct three types of performance testing: (1) load testing to verify customer-facing components function under peak expected loads; (2) verification that back-end processes run in acceptable time frames under all expected conditions; and (3) validation that individual requests are processed to specification, excluding exceptions such as certain administrative reports. ETS will:

- execute tests (with appropriate iteration);

- analyze the results; and

- implement corrective actions.

Working with LEAs to Gather Usability Feedback

In order to continuously improve the quality and usability of all software applications, the CDE and ETS plan to engage several LEAs in user-centric design research. The goal is to retain an advisory group, comprising representatives from LEAs throughout the state, which can conduct UAT of the secure browser on multiple devices and operating systems.

The LEAs will be chosen by the CDE and will reflect the diversity of California's student populations, as well as the diversity of California's local educational agencies, large and small. These LEAs will be retained as members of an advisory group that can be called upon on an as-needed bases to inform and advise on ancillary materials in support of the program.

3.2.B.10. Disaster Recovery and Business Continuity (DR/BC)

ETS will provide robust and fault-tolerant systems and processes. ETS houses systems in Tier 3 data centers with dual-powered equipment and multiple communications capabilities to support at least 99.982 percent availability post DR. Additionally, industry-standard backup and recovery procedures are in place. ETS provided documentation to the CDE on the formal DR/BC plan that supports the specified uptime and recovery time objectives.

3.2.B.11. Data Policy Retention and Destruction

ETS complies with the data retention, handling, and destruction requirements outlined in the requirements in the California State Administrative Manual (SAM) Section 5305.8; the Department of Education Administrative Manual (DEAM) sections 10120, 10600, and 10601; California *EC* 60607; and the Family Educational Rights and Privacy Act (FERPA) of 1975.

The ETS solution also meets the FIPS PUB 140-2 issued by the NIST for data with personally identifiable information and secure test data (e.g., items, score keys), both in transit and at rest.

To comply with the contract transition requirements, ETS will maintain the final data of record as identified in the Requirements document and will confirm the appropriate and secure transfer of the information to the next contract. ETS will securely destroy any data generated by and for CAASPP and ELPAC not considered the data of record. ETS will seek the CDE's approval prior to the secure destruction of these provisional data.

3.2.B.12. Maintenance and Operations

ETS will manage and coordinate requested changes in an orderly fashion. This will include scoping, at a high level, the amount of overall software changes anticipated for each test administration as well as accounting for infrastructure and technology upgrades. Mid calendar year, ETS will provide the annual downtime schedule for the upcoming fiscal year for approval.

As California's needs change over time, ETS will capture those growing needs as Business Requirements, which will then be allocated to relevant ETS applications for four implementations. The application development teams determine Functional Requirements additions/changes that address those changed business needs. The additions/changes will be allocated into releases considering the customer's timing needs and other constraints.

ETS will establish appropriate communication channels to coordinate and communicate both scheduled and unscheduled releases, to the CDE's specifications. Every release will contain release notes, including a list of all the "as built" business and functional requirements and all the bug fixes that went out with the release.

TASK 4: Test Security

ETS will provide the CDE with a secure system that is designed to meet the security challenges—both current and emerging—facing today's LEAs and schools. The system has security checks before, during, and after testing—protecting the integrity of the California Assessment System.

4.1. Test Security Plan

ETS will provide the CDE with a draft test security plan for the administration years 2018–2019, 2019–2020, 2020–2021, and 2021–2022 in September 2018, September 2019, September 2020, and September 2021, respectively, using the certification and approval process outlined in Task 1.9. Upon the CDE's approval, ETS will implement the test security plan and will annually update the test security plan for each subsequent administration.

Commitment to Security

ETS shares the CDE's commitment to the confidentiality of students' personal data as well as to the security of tests and will strictly enforce ETS's security process. Every ETS employee must sign and abide by the ETS Code of Ethics, which explicitly describes the personal responsibility of employees to protect personally-identifiable information and intellectual property. ETS subcontractors must also sign documentation acknowledging their understanding of ethical and legal business practices, the need for site security, and expectations for confidentiality policies.

California will have the support of dedicated ETS staff who are responsible for information security, privacy, test security, physical security, disaster recovery/business continuity, and internal audits. These staff members communicate and collaborate via a corporate-level security steering committee, led by ETS's chief information security officer.

Continual education and certification allow ETS to keep up-to-date in emerging security threats and industry best practices, both of which inform the continuous improvement of security practices and services.

ETS has adopted the International Organization for Standardization's (ISO's) 27000 series of standards as the ETS information security framework and information security program. ETS designed the ETS Corporate Information Protection Policy to be in accordance with the specifications contained in ISO 27001:2013. ETS also developed these policies to align with the National Institute of Standards and Technology (NIST 800-53), Payment Card Industry Data Security Standard (PCI DSS 3.2), and Federal Information Security Management Act (FISMA).

In addition to the ETS Code of Ethics policy, ETS require all employees, agency personnel, consultants, and other work-for-hire staff that use its network services to sign

a statement of agreement, verifying that they have read the ETS Corporate Information Protection policy and that they understand and agree to abide by its provisions. In addition, all staff who see or handle secure test items, forms, or booklets must sign a confidentiality agreement as a condition of employment. Information protection policies and the confidentiality agreement form will be provided to the CDE upon request.

ETS's infrastructure provider, DXC, holds an ISO 27001 certification for both ETS's data center, where ETS systems such as servers and the mainframe reside, and ETS's operations (e.g., network administration and desktop support). This certification covers the systems and internetworks supporting all phases of ETS's assessment process, including identity, authentication, authorization, registration, test delivery, results collection, scoring, and reporting. An independent firm regularly audits controls and provides an annual Statement on Standards for Attestation Engagements No. 18 (SAE18) Statement of Controls report.

ETS maintains dedicated organizations and staff with responsibility for information security, physical security, test security, disaster recovery/business continuity, privacy, and internal audit. These organizations communicate and collaborate via a corporate-level Security Steering Committee, led by the Chief Information Security Officer and comprising the leaders responsible for each function.

ETS will comply with the ISO 27001:2013, Information Security Management System (ISMS) Standard. The scope for this ISMS certification are the key processes and systems that support the delivery of digital assessments (i.e., Internet-connected devices). ETS expects to receive this ISMS certification before June 2020.

Secured Access. The ETS data center will continue to protect the California assessment system's data. Only personnel with functional responsibilities may unlock the doors with their badges, and authorized personnel accompany visitors within the data center at all times. The data center contains extensive smoke detection and alarm systems, as well as a pre-action fire-control system. ETS stores critical files for software, applications, and documentation offsite in a secure location and has a backup site so that operations may continue in the event of a natural disaster.

The Assessment Delivery System is hosted in secure data centers in Chicago, Illinois, and in Ashburn, Virginia, that meet or exceed industry standards, are regularly audited by an independent firm, and provide multiple physical layers of security, including: an integrated proximity card-reader system, a closed circuit monitoring throughout the facility, and security staff available 24 hours a day, seven days a week. Industry standards and best practices—such as file system encryption, host-based firewalls, system hardening, and secure access—are used to enable network, host, and application security.

ETS is in compliance with all applicable legal and regulatory obligations at both the state and federal level. Applicable regulations for information security most often involve the protection of privacy, payment mechanisms, and other sensitive information and

systems. An annual audit of ETS programs (performed every three years for each program) checks to see whether ETS Standards are being followed. During the renewal period, ETS plans to conduct the ETS internal audit process as follows in Table 3.

Table 3. ETS's Internal Audit Schedule Cycle

Assessment	Audit Cycle
Smarter Balanced Summative Assessments: 2019–20 Administration	2020–21
CAA ELA and Math: 2020–21 Administration	2018–19 and 2021–22
CAST: 2018–19 Administration	2019–20
CSA: 2018–19 Administration	2019–20
CAA Science: 2019–20 Administration	2020–21
ELPAC CBA: 2019–20 Administration	2020–21
Alternate ELPAC CBA: 2020–21 Administration	2021–22

Item and Test Development Security

For both the CAASPP and ELPAC programs, ETS will keep materials locked when not in use and will transmit items via ETS's internal item banking system or secure file transfer protocol sites to maintain security for item development, item field tests, and test form construction. ETS will encrypt databases and backups to meet the standards published in FIPS 140-2 and will work with the CDE to maintain compliance as updates to FIPS standards are updated in the future.

Item Bank Security

The measures ETS takes for assuring the security of electronic files are as follows:

- Access to item banks requires secure login identification and passwords, and is restricted to the least amount of privilege required to perform one's job functions.

- Backups of electronic forms of test content and item banking systems will be kept off-site in order to prevent loss from a system breakdown or a natural disaster.

- The off-site backup files will be kept in secure storage, with access limited to authorized personnel only.

Committee Meeting Security Procedures

For committee meetings, participants will be required to sign and submit confidentiality forms. For meetings that use paper materials, participants must sign numbered materials in and out. To maintain security for meetings that require electronic devices be used, ETS will provide the electronic devices for use by participants during the meeting.

Computer-Based Testing Security

ETS designs identity and access management as a set of services, processes, and technologies to securely and consistently manage user identities, privileges, and usage. ETS strictly controls California Assessment Delivery System access based on the assigned user role. ELPAC CBA and Alternate ELPAC CBA will be integrated beginning with the first time that the assessments are piloted or field tested online. Access control features will restrict access to information that is outside the responsibility of the assigned user role when the user has numerous, different roles.

The CDE can direct ETS to change access to data and functionality at any time based on the available user roles. The California Assessment Delivery System will require users to authenticate themselves by providing a username and password before gaining access. The system's single sign-on implementation will use industry-proven security standards and best-practice protocols. ETS also will enforce an industry-standard secure password policy every time a user creates a new password or updates an existing one.

The test delivery system will provide a secure browser that locks down the student's desktop by blocking certain external applications and system hot keys. Any student or item data communicated to and from the test delivery system uses industry-standard encryption to enable secure content delivery. ETS will follow established standards and perform quality inspections so that the data are accurate.

Paper-Pencil Testing Security

ETS will provide an efficient and secure process for providing the Smarter Balanced ELA and mathematics grades three through eight and grade eleven paper-pencil assessment for students who require this mode of testing. ETS will provide the same process for the Summative ELPAC and Initial ELPAC PPTs for 2018–19 and the Initial ELPAC PPTs for 2019–20. ETS will manage and provide the paper-delivered tests from ETS's offices.

ETS will produce and support a limited amount of Smarter Balanced Summative ELA and mathematics, CAST (beginning 2019–20), Summative ELPAC (beginning 2019–20), and Initial ELPAC (beginning 2020–21) paper-pencil tests for special purposes:

- The braille and large-print paper-pencil versions of ELA and mathematics are available to students with IEP or 504 plans who cannot access the assessments through an approved electronic device.

- The paper-pencil regular print versions of ELA and mathematics tests will only be provided for those individual students who repeatedly experience difficulty accessing the test due to technical issues that cannot be resolved within two weeks by the CalTAC and/or technical services/support teams.

ETS has agreements with more than 60 printing vendors specializing in the production of high-stakes assessment materials, including secure test booklet printing, accessible formats, scannable form production, non-secure materials production, non-standard formats, and other media.

Only those printing vendors who have met the security criteria and who have successfully passed the qualification process, which includes signing security agreements, will produce secure test materials under contract by ETS for the California assessment system. ETS will use established, secure processes to facilitate the back-and-forth of quality checks during the production cycle. ETS will use a secure courier to ship all test materials to California LEAs in unmarked boxes, bearing only the return address of ETS's test materials processing center.

ETS will combine bar-code reading technology with a proprietary order tracking system to facilitate closed loop tracking for all secure materials. This process will create a permanent, detailed record of items distributed to each school, which can be matched against returning materials to assess the completeness of each LEA's/school's return.

ETS will systematically match the captured barcode numbers to the outbound shipment barcode numbers' data files. An output log will be generated that identifies missing test materials by school and LEA. ETS program managers will receive this log, called a "Missing Materials Report," for follow-up calls to LEA staff to investigate any missing test materials. ETS will provide a document identifying the check-in of all secure materials after each administration.

ETS will use a barcode verification system to account for the secure items received in the warehouse for closed loop tracking.

ETS will obtain written permission from the CDE prior to proceeding with certified, approved destruction at an approved facility after appropriate retention periods. Upon destruction, ETS will present a certificate of destruction of those materials.

Encryption of All Test Items and Student Data at Rest and In Transit

ETS will provide all interfaces with security for data encryption at rest and in transit. Encryption at rest primarily applies to any data files that reside on a server that uses the SFTP waiting to be retrieved. Best security practices, including system-to-system authentication/authorization, are integrated in ETS's solution design to meet the FIPS 140-2 issued by the NIST. As the CDE requires, all CAASPP and ELPAC data will remain within the continental United States.

Secure Data Transmissions

As a part of implementation, ETS will establish an SFTP service that will manage SFTP transfers to a directory structure. Gatekeepers, generally one at the CDE and one at ETS, will determine access privileges. The ETS gatekeeper will be responsible for approving all users for access.

Reporting

The ETS reporting system will produce quality-controlled PDF reports and copy them to a secure location. Student score reports will be posted to the cloud-based solution (for a rolling three-year period) that was approved by the CDE or California Information Protection Office as part of the CAASPP Amendment 4 SOW and is consistent with the minimum system requirements included in Appendix C—Minimum System Requirements. Student reports will be encrypted at rest and encrypted while in transit. Permission-based access will control which student score reports can be accessed from the LEA Student Information System (SIS). Score report recipients can securely access only the information allowed by their security profile and student enrollment information. Permissions will be updated daily based on the daily enrollment information received from CALPADS. In addition to the PDF score reports, ETS currently sends daily interim test results securely to the CERS and in the future plans to share the California assessment system summative test score results with the CERS for educator online reporting.

The solution will expose a Representational State Transfer (REST) service endpoint that will require unique credentials from every SIS instance. The API returns temporary URLs for student score reports that will expire 30 minutes after creation. Access to a student score report beyond the 30 minute expiration timeout would require the SIS system to request another temporary URL. The REST service accepts multiple filtering parameters to retrieve score reports from a particular administration, language, and report type.

ETS will store California students' electronic reports on servers that will be encrypted and protected with multiple levels of password protection to prevent unauthorized access. Additionally, ETS will earmark the reports displayed to a particular user for his or her assigned access permissions. The method used to download or electronically transfer files that contain student level data will utilize encryption that meets the standards outlined in FIPS 140-2. Secure socket layer encryption will protect all data transferred over the Internet, and ETS will maintain data behind a corporate firewall; intrusion-detection software monitors this firewall for breaches 24 hours a day, seven days a week, 365 days a year.

4.2. Test Administration Monitoring

ETS will provide the following test administration monitoring activities for the California assessment system:

- working proactively with LEA CAASPP and ELPAC coordinators

- social media monitoring

- on-site test security site visits

During a test administration year, ETS will meet weekly with the CDE to review test monitoring activities, including the areas described in the following sections. These weekly meetings are separate from the weekly management meetings and will focus specifically on test monitoring activities such as appeals for computer-based tests.

Table 2, line #39 identifies ETS's training plan for Coordinators.

Working with LEA CAASPP and ELPAC Coordinators

Prior to the beginning of the test administration window, ETS will provide a training video for LEA coordinators, test site coordinators, test administrators, and test examiners that covers test security procedures for the California assessment system, including security protocols for computer-based testing as well as paper-pencil testing (i.e., ELPAC paper until computer-based is operational, and special versions of paper-pencil assessments). ETS will post the training videos to http://www.caaspp.org/ and to http://www.elpac.org/ for viewing. The test security training videos will use a train-the-trainer model—that is, in addition to informing LEA coordinators of the test security requirements, ETS will provide them with tools and training materials that they may use in training their LEA staff, test site coordinators, test administrators, and test examiners. For example, ETS will provide the LEAs with a checklist that confirms that they are following all of the proper test security protocols.

ETS will also provide additional information, tools, and materials on http://www.caaspp.org/ and http://www.elpac.org/ that will assist LEAs in meeting test security requirements. ETS will work with the CDE to provide additional test security materials, as needed, for LEAs.

ETS will conduct 50 on-site visits and will provide additional remote support by phone to LEAs to provide technology and test preparation support as needed. The California Assessment Delivery System includes an online method for submitting appeals for computer-based assessments. ETS will continue to work with the CDE to refine the online testing irregularities reporting process, which will include a decision tree to address reported irregularities as approved by the CDE.

The California Assessment Delivery System includes an online method for submitting appeals for computer-based assessments. ETS will integrate the Security and Test Administration Incident Reporting System (STAIRS) within the California assessment

system. Please refer to Task 7.3.A.2 for a more detailed description of the STAIRS process.

Social Media Monitoring for the California Assessment System

Since testing occurs throughout the year, ETS will monitor social media and other websites for the California assessment system daily, all year round. ETS will monitor YouTube®, Snapchat®, Facebook®, Instagram®, Google+®, Twitter®, and school and LEA websites; as well as other social media applications as they become available. ETS will include other websites identified during the test administration window. ETS will look for any postings—both images and text—that include secure test materials such as test questions or passages, test booklet covers, and answer documents.

For each identified posting, ETS will collect any relevant information, including student name and school or LEA, if possible. ETS will enter this information into a secure online log that is accessible by both ETS and the CDE staff. ETS test development and psychometric experts will evaluate each posting identified to be test material and will make recommendations to the CDE on the impact of the items to the validity of the test administration.

On-Site Test Security Visits

ETS and partner In-Touch Insight (In-Touch) will plan and conduct 200 on-site test security site visits annually beginning in the 2019–20 administration. In-Touch's team of in-state auditors will conduct the test security site visits.

ETS will provide training to the In-Touch auditors on the expected site visit audit procedures, as well as a detailed overview of the specific assessments they will be monitoring. ETS will create a video of the auditor training and post the video on an auditor-only section of http://www.caaspp.org/ and http://www.elpac.org/ for viewing. Each auditor will complete the provided training; and In-Touch supervisors will not assign auditors to site visits until they verify the completion of training.

The site visits will include audits of computer-based (i.e., interim assessments and summative assessments) test administrations for the California assessment system beginning with the 2018–19 test administration. In the 2018–19 administration, ETS will conduct 130 site visits that include audits of the CAASPP and Summative ELPAC PPT administrations and will conduct the majority of these audits during the February through May 2019 timeframe. ETS will work with the CDE to revise the 2018–19 test security plan to include the Summative ELPAC PPT administration.

When available, all four ELPAC assessments will be added to the audit schedule. This includes the Initial ELPAC, the Initial Alternate ELPAC CBA, the Summative ELPAC, and the Summative Alternative ELPAC CBA.

Beginning with the 2019–20 administration and ending with the 2021–22 administration, ETS will annually conduct the following audits:

- Block One – August through November – 50 audits – Initial ELPAC, CAA for Science, and Smarter Balanced Interims

- Block Two – January through March – 50 audits - Initial ELPAC, CAST, CAA for Science, Smarter Balanced Interims, and Summative ELPAC

- Block Three – April through June – 100 audits – Summative CAASPP, Summative ELPAC, Smarter Balanced Interims

Each audit will follow the same process in terms of protocol. For example, each audit will gather the same information, such as:

- What has been done to prepare the staff and their technology for the test?
- If a test has been administered during the audit, were all procedures followed as far as test security?
- What will be completed to close out testing?

ETS will submit the proposed test security site visits auditor questionnaires to the CDE for review and approval.

ETS will randomly select 225 LEAs as potential sites, with 200 primary sites plus 25 replacement (i.e., backup) sites. The proposed list will be representative of California's diverse LEA demographics. Please note, interim assessments are included in these audits. ETS will submit the combined list to the CDE at least 60 business days before the first test administration window.

Upon the CDE's approval of the combined list, ETS staff will email each selected LEA to inform the respective LEA coordinator that an In-Touch auditor will be contacting him or her to schedule a security site visit. The In-Touch auditors will begin scheduling the 200 test security site visits within three business days after ETS has notified the respective LEA coordinator. Auditors will notify the LEA coordinator at least three business days before the scheduled site visit. At the direction of the CDE, a site visit may be scheduled and conducted immediately.

When conducting the site visits, auditors will present a letter of introduction from ETS as well as valid government-issued identification. In-Touch will conduct thorough background investigations of each potential auditor to confirm there is no criminal record and to confirm the employee may legally be on school grounds, before the auditor may complete training and conduct audits for CAASPP and ELPAC.

ETS will report the schedule of site visits weekly to the CDE. As site visits are completed, ETS will also report the preliminary results of the site visits. When a site does not meet the test security requirements, ETS will work with the CDE to determine the next action item, such as instigating a security breach investigation. ETS will submit the final report for a site visit to the CDE within ten business days after the completion of that site visit.

4.3. Investigating Security Breaches

ETS will conduct an investigation of any confirmed test security breach that may compromise the California assessment system administration. An investigator from ETS will be available within 48 hours to handle security concerns related to the California assessment system administration.

Investigations will include interviews with test administrators and/or test examiners, students (at the discretion of the LEA), test site coordinators, users with the Interim Assessment Administrator Only role, and any others who had access to the test materials (online or paper). ETS will also analyze data from computer-based incident response and forensic investigation. These investigations will attempt to determine the identity of those involved in the incident, recover any missing material, and assess the extent to which they compromised the test content.

Smarter Balanced Interim Assessment items must not be copied into a third-party system without the permission of Smarter Balanced. Any LEAs who copy Smarter Balanced Interim Assessment items without permission will be in breach of their security agreement and will require further investigation by ETS, under the direction of the CDE.

For all reported security breaches, ETS will coordinate and communicate the investigation with the CDE. ETS will propose a solution for all non-Smarter Balanced breaches. If the breach involves Smarter Balanced test materials, ETS will work with both the CDE and Smarter Balanced to conduct the investigation and determine the proposed resolution. If the breach occurred in one or more of the member states, ETS assumes that Smarter Balanced will notify the CDE, and will coordinate with both the CDE and Smarter Balanced to mitigate the breach.

When requested, ETS will conduct an on-site investigation in response to reported security breaches within one week of the request. As required, ETS will obtain the CDE's approval prior to the investigation. The ETS investigator will investigate and report results to ETS program management within five business days of being informed of a security breach. When necessary, ETS will provide reports through telephone and/or email within one business day of the request for a report.

In-Touch auditors will report any breaches to ETS before the end of the day of the audit. Within two hours of the auditor's notification, ETS program management will then notify, in writing via email and a follow up telephone call, the designated CDE contact for test security breaches. ETS requires auditors to file an online site visit form with ETS within three business days of the site visit.

ETS will submit a summary report of the investigation within ten business days following the conclusion of the investigation.

TASK 5: Accessibility and Accommodations

ETS is committed to California students having the most accessible user experience with the California assessment system. In this section, ETS will provide an overview of the appropriate universal tools, designated supports, and accommodations available in compliance with Smarter Balanced policies (for the Smarter Balanced assessments) and with the most recent version of the California Code of Regulations, Title 5, Section 850 et seq.; and Title 5, Section 11517.6 et seq., as adopted by the SBE.

5.1 Accessibility Plan for Computer-Based and Paper-Pencil Tests

5.1.A. Computer-Based Tests

ETS will use the AIR proprietary test delivery system (TDS) to deliver all computer-based assessments including: Smarter Balanced Summative Assessments, Smarter Balanced Interim Assessments, CAA (ELA, mathematics, and science), CAST, CSA, ELPAC CBA, and Alternate ELPAC CBA. ETS will provide students with access to all appropriate universal tools, designated supports, and accommodations needed for the computer-based assessments that are in current testing regulations and approved consortium resources or that may be added in the future to the testing regulations or consortium resources. ETS will provide recommended plans to the CDE for implementing the accessibility resources in the test delivery.

The accessibility features available for the Smarter Balanced assessments will align with the most recent version of the Smarter Balanced Usability, Accessibility, and Accommodations Guidelines. The accessibility features available for the non-Smarter Balanced assessments will align with the Board-approved CAASPP and ELPAC regulations. For those accessibility features denoted as in development in the regulations, ETS will evaluate and provide a timeline to implement those additional features. As new accessibility resources are considered for inclusion in the CAASPP and ELPAC regulations, ETS will review the technology or feature and make recommendations in writing, including cost and schedule impact, to the CDE subject to CDE's approval. The test delivery system will turn off any accessibility features that are not appropriate for a content area as approved by the CDE.

For all non-Smarter Balanced assessments, the accessibility resources will be consistent, when the content area and/or construct necessitates, with the accessibility resources used by Smarter Balanced assuming adoption by the Board.

ETS will work with Smarter Balanced and the state of California to implement new tools or resources in the student interface and secure browser. California will be able to determine whether test administrators may adjust settings at the beginning of the session or whether access to specific features requires higher-level authorization. ETS is committed to working with the CDE and Smarter Balanced to support emergent technologies, accessibility requirements, and accessibility resources to the greatest

extent possible. As new opportunities arise, ETS will review the technology or feature and make recommendations to the CDE and, if appropriate, Smarter Balanced on the potential systems and impact to schedules and costs. ETS will implement new technology or features that are approved in writing by the CDE and ETS.

According to the CDE's needs and preferences, ETS offers the following choices so that each accessibility resource can be:

- available to all students

- assigned to students in advance through data upload or through the user interface by the designated state, LEA, or school administrators (for the Smarter Balanced Interim Assessments, Smarter Balanced Summative Assessments, CAAs, CAST, ELPAC CBA, Alternate ELPAC CBA, and CSA)

- assigned to students at testing time by the test administrator (for Smarter Balanced Interim Assessments only)

At the beginning of the contract and annually thereafter based on the accessibility usage analysis described in Task 9, ETS will make recommendations in writing to the CDE on the assignment of the tools and resources for non-Smarter Balanced tests. ETS's recommendations will be based on experiences from the previous year's ELPAC administrations as well as information from other sources if available such as the California Special Education Management Information System (CASEMIS) and TOMS. Prior to the first administration of the ELPAC CBA, ETS will develop the ELPAC Accessibilities Framework Document. This document will outline recommendations and information on the types of supports that may be appropriate for the administration of ELPAC CBA. These supports will be consistent with existing uses in the classroom. ETS will annually review the frameworks document with the CDE based on a mutually agreed-upon schedule and will make updates to reflect newly identified supports that are applicable to ELPAC CBA. ETS will include information that explains the inclusion or, in some instances, the exclusion of a support or accommodation.

5.1.A.1. Print on Demand

The AIR system will continue to support the print on demand accommodation for items. It is the responsibility of the local test administrators to securely destroy any items that were printed. The test administration manuals developed for each assessment and the test security webcast will provide full instructions for the secure destruction of locally printed secure test materials. Test security site visit audits, described in Task 4, will include audits of the proper handling of these secure materials.

The TDS will deliver refreshable braille and large font size formats (i.e., zoom and extended zoom functionality) for the online Smarter Balanced assessments, CAST, CSA, and ELPAC CBA. The TDS will deliver the hybrid adaptive braille test for Smarter Balanced mathematics.

Braille materials are not provided for the CAAs (ELA, mathematics, and science) or the Alternate ELPAC CBA. These alternate assessments involve one-on-one administration by a test examiner familiar with each individual student's communication needs, with authorization to translate materials into braille, as permitted for each test title and according to each student's needs. For any Alternate ELPAC CBA and CAA for ELA tests where the blueprints include decoding items, ETS will make the text of these items available upon LEA request to facilitate local brailling. For the CAAs only (ELA, mathematics, and science), test examiners are permitted to translate test content into any language used in daily instruction.

The TDS will also deliver secure print-on-demand feature for Smarter Balanced and non-Smarter Balanced assessments, which prints an item or item group to a designated printer, for large print and other paper assessments, or to an embosser for braille forms. Only the computer-based assessments will be available through the Print-On-Demand feature that is available in the TDS. Task 7.2.A.2. provides information on the paper braille and large print materials.

The print-on-demand function is protected with security controls at three levels:

- embedded security in the print-on-demand function

- authentication, which confirms that only authorized users access information

- policy and test administration procedures, which confirm the proper handling, retrieval, and tracking of secure materials

5.1.A.2. Assistive Technology

The TDS currently supports a wide array of assistive technologies, and ETS continues efforts to expand the types of these assistive technologies. The system's streamlined interface adheres to the current version of the Web Content Accessibility Guidelines 2.0. Permissive mode is built into the system, which relaxes security restrictions for individual students who need to use such technologies.

The TDS currently works with a variety of refreshable braille devices, screen readers, on-screen keyboards, and a wide array of input devices.

ETS will collaborate with the CDE to understand the assistive technology needs of California LEAs and students. While it is impossible for any organization to guarantee support for unknown hardware and software, ETS is committed to maximizing accessibility for all students.

5.1.A.3. Translations

The TDS will support all means of translation access which Smarter Balanced has designed within its California Assessment Delivery System or which the CDE determines to be available for the new CAASPP assessments except for the CAAs. Translations for the CAAs are not provided, as these assessments are designed for

one-on-one administration by a test examiner that delivers the test to each student in the language of instruction. The availability of universal tools, designated supports, and accommodations is completely configurable, at the CDE's direction.

Translations are not provided for ELPAC and Alternate ELPAC CBA.

Translated Test Directions

ETS will support the translated test directions as provided by Smarter Balanced for the Smarter Balanced Summative Assessments for ELA and mathematics. As the Smarter Balanced languages list is updated annually, ETS will provide written translations of test directions in the languages provided for the Smarter Balanced Summative Assessments. ETS will work with the CDE to determine the languages designated for the non-Smarter Balanced CAASPP assessments and develop according to CAASPP regulations. Approved languages will be reviewed annually as agreed upon in the individual assessment program's schedules.

Translated test directions are currently not allowable accessibility resources per CDE policy as stated in the ELPAC testing regulations and therefore will not be provided for ELPAC CBA.

Translation and Illustrated Glossaries for Smarter Balanced Assessments

ETS's system will deliver items with translation tags for all required language translations, as specified by Smarter Balanced, and the provided translations will remain consistent with Smarter Balanced specifications and CAASPP regulations. The system also will deliver the illustrated glossaries as provided by Smarter Balanced.

Smarter Balanced confirmed they will be adding illustration glossaries to interim and summative tests for the 2019–20 administration year. ETS will work with the CDE on a mutually agreed-upon timeline for including illustration glossaries for the non-Smarter Balanced CAASPP and the ELPAC assessments as deemed appropriate by the CDE.

Translation Glossaries for CAST

Translation glossaries are an embedded designated support that provides for selected construct-irrelevant terms for CAST. Similar to the mathematics translation glossaries provided by Smarter Balanced, the CAST translation glossaries will be available in written and audio formats. The translation glossaries will be available as part of the TDS. For translation glossaries, ETS assumes that approximately 300–350 words for each of the three grade-level tests will be glossed, for an estimated total of 900–1,050 words.

ETS's translation service vendor will identify the words that are recommended for translation, consistent with the practices used for Smarter Balanced translation glossaries. ETS will submit the recommended word lists to the CDE for review and approval. The CDE-approved word lists will then be submitted to ETS's translations

services vendor for translation. ETS will provide CAST translation glossaries in 10 languages, as specified in the CAASPP regulations.

In addition, ETS will provide stacked[2] translations of the CAST in Spanish. ETS assumes that the CDE will provide its own language experts to conduct the CDE reviews. ETS will conduct an independent review of the items.

Spanish Glossaries for CSA

The CSA will provide an embedded Spanish glossary as part of the TDS, similar to the English glossary provided by Smarter Balanced for the ELA assessment. It will be an embedded universal tool for selected grade- and context-appropriate and construct-irrelevant terms.

ETS will identify the words that are recommended for glossing, consistent with the practices used for Smarter Balanced translation glossaries and with the CDE's Spanish glossary. ETS will submit the recommended word lists to the CDE for review and approval annually based on the item development cycle and a mutually agreed-upon schedule.

5.1.B. Special Version Paper-Pencil Tests of Smarter Balanced Summative Assessments and CAST

Only the Smarter Balanced assessments[3] will require braille, large print, and regular print versions in accordance with student individualized education program (IEP) requirements and as described in Task 3.1. ETS will provide CAST paper tests in braille, large print, and regular print beginning in 2019–20 as described in Task 3.1. Braille and large print versions for CAST (2018–19 only), CSA, and the CAAs will only be available online through TDS and there will not be any printed versions. ETS will communicate with those LEAs that order paper special versions to inform them of the online testing of CAST (2018–19 only), CSA, and the CAAs.

The quantities of the Smarter Balanced and CAST (beginning 2019–20) braille, large-print, and regular print test books will be based on orders provided by LEAs through TOMS by December 1st annually.

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[2] Stacked translations are a language support and are available only for the Smarter Balanced Summative paper-pencil tests. Stacked translations are available for some students; stacked translations provide the full translation of each test item in Spanish above the original item in English.

[3] Although operational during the life of the contract, ETS assumes that the California Alternate Assessments for ELA, mathematics, and science will not require braille and large print versions since the proposed assessment design is primarily an examiner-led test delivery. CAST (2018–19 only) and CSA will be online administrations only; the braille, large print, and other accessibility features for these assessments will be supported via the TDS and will be implemented within a timeframe that is appropriate for each assessment, which may extend beyond the terms of this contract.

ETS will provide detailed LEA coordinator instructions and test administrator directions to support the test for the special versions.

ETS will produce sufficient quantities of the special version test booklets and supporting answer documents to support the initial orders, any supplemental orders, and any samples necessary to support review and archival processes. ETS will continue to make available the Smarter Balanced special versions of tests, along with their accompanying test materials, even when the standard paper-pencil version is no longer administered.

5.1.B.1. Braille and Large Print Testing Materials

ETS will print the Smarter Balanced Summative Assessment braille and large print materials for the 2018–19, 2019–20, 2020–21, and 2021–22 administrations as described in Task 7. ETS will print the CAST braille and large print materials for the 2019–20, 2020–21, and 2020–22 administrations as described in Task 7.

Fixed-Form, Paper Braille Versions of the Smarter Balanced Online Summative Assessments

For the 2018–19, 2019–20, 2020–21, and 2021–22 administrations, ETS will order the fixed-form paper braille versions through the American Printing House for the Blind (APH) at the direction of the CDE. The Smarter Balanced braille forms will be provided directly by Smarter Balanced to APH. ETS will obtain the revised braille materials from APH should Smarter Balanced need to revise those materials.

The following forms will be available until either the volume justifies removing them from print with CDE approval or Smarter Balanced no longer produces them:

- ELA:

    o English Braille American Edition (EBAE) contracted
    o EBAE uncontracted
    o Unified English Braille (UEB) contracted
    o UEB uncontracted

- Mathematics:

    o EBAE contracted with Nemeth
    o EBAE uncontracted with Nemeth
    o UEB contracted with Nemeth
    o UEB uncontracted with Nemeth
    o UEB contracted with UEB math
    o UEB uncontracted with UEB math

Braille Graphics Package to Accompany the Smarter Balanced Mathematics Summative Assessments

ETS will provide the online hybrid adaptive braille form: a computer-based version where the student will take a non-adaptive section with tactile graphics followed by an adaptive section with items that do not require printed graphics. To accompany the online braille administration, ETS will provide LEAs with hard copies of the embossed graphics packages provided by Smarter Balanced. The pre-embossed tactile graphics are used to supplement items which are graphics intensive and difficult for braille readers to decode, and that are difficult to emboss on demand while administering the braille online test.

Braille Graphics Package to Accompany CAST

ETS will provide a computer-based, fixed-form braille test at each grade assessed. To accompany the online CAST braille administration and at an LEA's request, ETS will provide hard copies of the embossed graphics packages. The pre-embossed tactile graphics will supplement the CAST items which are graphics intensive, difficult for braille readers to decode, and difficult to emboss on demand while administering the braille online test.

Large-Print Versions of the Smarter Balanced Summative Assessments

ETS assumes that Smarter Balanced will not provide a large print version of the Smarter Balanced tests. ETS will use the Smarter Balanced-provided PDFs to produce large print versions that meet the standard state requirements that approximate 14-point font through photo enlargement. ETS will indicate which items cannot be used for scoring because of art or graphics that may be affected by enlargement, and about the spacing of materials that affects performance on items.

ETS will print the large print test forms on 11″ x 17″ paper. The large print test forms will follow the pagination of the standard-size test book.

Distribution of Printed Braille and Large Print Testing Materials for Special Accommodations

For the 2018–19, 2019–20, 2020–21, and 2021–22 administrations, ETS will provide printed braille and large print test materials for Smarter Balanced Summative, CAST, Initial ELPAC CBA, and Summative ELPAC CBA for students whose IEP and/or 504 Plan specify the administration of paper tests. ETS will package printed test forms into kits that are ready for distribution to the LEAs on the same schedule as the standard version of the tests. LEAs will use ETS's system to order braille and large print kits, as they do for the standard test materials. See Table 18 for additional information.

Braille kits will include:

- braille test booklet

- operational test booklet

- braille response document

- operational response booklet

- directions for administering, transcribing, and returning braille tests

- boxes and envelopes, along with pre-paid return shipping labels, included in the shipment of all materials to the LEAs

Large print kits will include:

- large print test booklet

- booklet directions for administering, transcribing, and returning large print tests

- boxes and envelopes, along with pre-paid return shipping labels, included in the shipment of all materials to the LEAs

ETS will discuss the proposed plans in the project planning meeting, and ETS will make any adjustments to existing procedures or plans for development of accommodated materials.

Scoring of Braille and Large Print Testing Materials for Special Accommodations

ETS assumes that the Smarter Balanced paper-pencil Summative Assessments will be available by August 1st annually from Smarter Balanced. Any delay from Smarter Balanced of the paper-pencil materials means the schedule for publishing, shipping, and test delivery will be impacted and adjusted to meet delivery requirements. ETS will work to expedite any delays in the schedule that result from a Smarter Balanced delay in a deliverable. Students will respond on the paper versions, and the test administrator or scribe will be responsible for entering the student's responses directly into the TDS. These responses are then scored and reported as described in Tasks 8 and 9. Refer to Task 7 for additional information on the production of the braille and large print Smarter Balanced forms.

The braille and large print paper-pencil tests will be available for CAST and Summative ELPAC CBA beginning in the 2019–20 administration and for Initial ELPAC CBA beginning in the 2020–21 administration. The test administrator, test examiner, or scribe will be responsible for entering the student's responses directly into the TDS. These responses are scored and reported as described in Tasks 8 and 9.

5.1.C. Special Version Paper-Pencil Tests of Summative ELPAC (2018–19 only) and Initial ELPAC (2018–19 and 2019–20 only)

ETS will produce paper braille and large print versions of the ELPAC for the following administrations:

- 2018–19 Summative ELPAC

- 2018–19 Initial ELPAC

- 2019–20 Initial ELPAC

As each ELPAC CBA component becomes operational, ETS will continue to provide paper versions in braille, large print, and regular print for special administration requirements or technical issues as described in Task 3.1.

The quantities of the Summative ELPAC paper braille and large print test books will be based on orders provided by LEAs through TOMS by December 1, 2018. The quantities of the Initial ELPAC paper braille and large print test books will be based on orders provided by LEAs through TOMS by the spring ordering deadlines.

ETS will provide detailed LEA coordinator instructions and test administrator directions to support the test for the special versions.

ETS will produce sufficient quantities of the special version test booklets and supporting answer documents to support the initial orders, any supplemental orders, and any samples necessary to support review and archival processes. ETS will discontinue the paper special versions ELPAC, along with their accompanying test materials, when the standard paper-pencil version is no longer administered.

5.1.C.1. Braille and Large Print Testing Materials

ETS will print the ELPAC paper braille and large print as described in Task 7.

Fixed-Form, Paper Braille Versions of the ELPAC Paper Tests

ETS will produce the ELPAC paper braille versions for grades K–2 in uncontracted braille. ETS will produce the ELPAC paper braille versions for grades three and above in contracted braille.

Large-Print Versions of the ELPAC Paper Test

ETS will reprint either the 2018 or the 2019 large print versions of the ELPAC. These large print versions use the same items as the standard versions, and they meet standard state requirements by using text that is approximately 14-point font through photo enlargement.

ETS will print the large print test forms on 11″ x 17″ paper. The large print test forms will follow the pagination of the standard-size test book.

Distribution of Printed Braille and Large Print Testing Materials

For the 2018–19 and 2019–20 administrations of the ELPAC PPTs, ETS will package printed test forms into kits that are ready for distribution to the LEAs on the same

schedule as that for the standard version of the tests. LEAs will use ETS's system to order braille and large print kits, as they do for the standard test materials.

5.2. Unlisted Resources

All universal tools, designated supports, and accommodations currently required by California will be supported for California Assessment System as each assessment matures. Universal tools, designated supports, and accommodations as required by the CDE will be supported for the ELPAC CBA and Alternate ELPAC CBA in time for the first operational administration. ETS also understands that new technology and accessibility features will become available in the future.

To support this, ETS's secure test delivery system will include a feature by which LEA coordinators or test site coordinator (the requester) may request the use of unlisted resources. Using TOMS, the requester can select a request button while viewing a student profile. The request would automatically generate a request form linked to that student and would include all required information, as directed by the CDE to meet applicable regulations, including:

- LEA name, County-District-School (CDS) code

- school name, CDS code

- requester's name, role, and contact information (LEA coordinators or test site coordinator for both CAASPP or ELPAC programs)

- the Statewide Student Identifier (SSID) for the student and the content area and assessment for which the accessibility is requested

- grade, special education (IEP), primary disability type, and section 504 plan indicators for the student

The LEA coordinators will provide information on the unlisted resource(s) being requested and description of student need(s) to be addressed by the unlisted resource. If the CDE would like to expand the ability to request unlisted resources to others, for example the test administrator, ETS can configure the user roles to allow for this at no additional cost to the CDE.

ETS provides a summary to the CDE of the unlisted resources requested and the CDE's decisions made for each request via a downloadable on-demand report in TOMS.

TASK 6: Assessment Development

ETS assessment development and psychometrics experts will maintain previously approved design plans and updates consistent with subsequent CDE decisions. Generally, the test development process is, at a minimum, a two-year process, and item-writing activities begin in the previous test administration year.

For ELPAC PPT, ELPAC CBA, and Alternate ELPAC CBA, ETS will implement a rigorous and well-documented design and development process.

6.1. Assessment Design

As needed, ETS will convene the test design team separately for each assessment (i.e., CAA for ELA and Mathematics, CAA for Science, CAST, CSA, ELPAC CBA, and Alternate ELPAC CBA) in single-day virtual meetings to review existing test designs. ETS anticipates the following timeline if an assessment's test design team needs to be convened:

- November 2017: 2018–19 assessment design and development cycle

- September 2018: 2019–20 assessment design and development cycle

- September 2019: 2020–21 and 2022–23 assessment design and development cycle

- September 2020: 2021–22 and 2022–23 assessment design and development cycle

    o Note: The 2022–23 assessment design and develop activities will be conducted over two years, within the 2020–21 and the 2021–22 cycles.

To be included in the upcoming test administration year, a decision on any new recommendations must be approved by the CDE according to the processes outlined in Task 1.9.

Test design teams may include ETS experts in assessment development, psychometrics, research and information technology, English language development (ELD), natural language processing (NLP), and standard setting for assessments' reporting performance levels as well as representatives from ETS's test delivery partner, AIR, to review and revise existing test designs. Test design teams for alternate assessments will also include experts in special education. For science assessments, test design teams will also include national science experts.

ETS will collaborate with nationally recognized experts externally and within ETS to develop test designs that are appropriate for the students and content standards assessed. ETS will allocate 45 consulting days total per year across all non-Smarter

Balanced assessments for the experts to provide feedback. ETS will report expended consulting days in the Monthly Accomplishments Report (Task 1.7) in the month following the expenditure of the consulting days and will include an accounting of how those consulting days were spent. In addition, ETS will obtain feedback from the experts as well as other stakeholders to identify the most appropriate accessibility resources for each assessment. ETS will work with the CDE to engage the appropriate national and state-specific experts to participate virtually in these meetings for the ELPAC CBA and Alternate ELPAC CBA, and for the CAST, CSA, and the CAA for Science, if appropriate.

California Science Tests (CAST) and California Alternate Assessments for Science (CAA for Science)

For planning purposes, ETS assumes that the test development activities for the CAST and CAA for Science will be based on the California Next Generation Science Standards (CA NGSS) adopted by the SBE in 2013.

The high-level test design for the CAST, including stakeholder input, was approved by the SBE in 2016. ETS understands adjustments may be needed to the high-level test design based on data from the pilot, field test, and first operational administrations, as well as associated psychometric studies. For example, for CAST, the associated psychometric studies relate to the practicality of implementing a multi-stage test (MST) and content screener. Given that the long-term test design does include the possibility of implementing both a content screener and MST, if the research from these studies indicates no benefit to implementation, then the high-level test design may be altered to reflect not implementing these components. If that is the case, ETS will work with the CDE and stakeholders, as appropriate, to recommend revisions to the high-level test design based on the following schedule:

- November 2017: 2018–19 assessment design and development cycle

- October 2018: 2019–20 assessment design and development cycle

- October 2019: 2020–21 and 2022–23 assessment design and development cycle

- October 2020: 2021–22 and 2022–23 assessment design and development cycle

To be included in the upcoming test administration year, a decision on any new recommendations must be approved by the CDE according to the processes outlined in Task 1.9.

The CAST and CAA for Science assessments will be administered in grades five, eight, and once in high school. The CDE will issue guidelines to LEAs on which high school students to test in a given year, noting that banked scores accumulated through grade twelve.

ETS will work closely with the CDE to continue the development of the CAST and CAA for Science to best meet the state's vision. Other sources of appropriate items may be considered to create the necessary pool for test development and other resources.

A high-level timeline of CAST and CAA for Science development activities for the duration of this contract is shown in Table 4.

Table 4. High-level Test Development Timeline for CAST and CAA for Science

Administration Year	CAST Activities	CAA for Science Activities
2018–19	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of items for field testing in the 2018–19 administration • Conduct new item review • Develop a practice test for grades five, eight, and high school • Administer operational test • Conduct operational data review • Complete range finding and CR scoring • Develop grade and content-specific Achievement Level Descriptors (ALDs) • Conduct standard setting • Produce standard setting technical report • Develop score report language using ALDs and score claims, including group level reporting when available. • Produce technical report	• Annual review of item development materials • Conduct item writer workshop • Develop one performance task as a training test aligned with new online delivery mode (one training test covering all grades) • Administer field test • Conduct field test data review • Produce field test technical report • Develop an equating plan

Administration Year	CAST Activities	CAA for Science Activities
2019–20	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of items for field testing during the 2019–20 administration • Conduct new item review • Administer operational test • Conduct data review • Complete range-finding and CR scoring • Produce technical report	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of PTs for field testing during the 2019–20 administration • Conduct new item review • Develop practice tests for grades five, eight, and high school o Each practice test will consist of three performance tasks with each performance task assessing two science connectors with each connector consisting of five items (i.e., two low, two medium, and one high complexity item(s)) • Administer operational test • Conduct data review • Develop grade- and content-specific ALDs • Conduct standard setting • Produce standard setting technical report • Develop score report language using ALDs and score claims • Produce technical report

Administration Year	CAST Activities	CAA for Science Activities
2020–21	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of items for field testing in the 2020–21 administration • Conduct new item review • Administer operational test • Conduct operational data review • Complete range finding and constructed-response scoring • Produce technical report	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of PTs for field testing in the 2020–21 administration • Conduct item review for field test PTs • Develop one PT each for grade 5, grade 8, and high school to be added to the existing CAA for Science Practice Tests • Administer operational test • Conduct operational test data review • Produce technical report • Develop an equating plan

Administration Year	CAST Activities	CAA for Science Activities
2021–22	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of items for field testing during the 2021–22 and 2022–23 administrations • Conduct new item review • Administer operational test • Conduct data review • Complete range finding and constructed-response scoring • Produce technical report	• Annual review of item development materials • Conduct item writer workshop • Develop one PT each for grade 5, grade 8, and high school to be added to the existing CAA for Science Practice Tests • Develop sufficient number of PTs for field testing during the 2021–22 and 2022–23 administrations • Conduct item review for field test PTs • Administer operational test • Conduct operational test data review • Produce technical report

For high school testing of CAST and CAA for Science, ETS will accommodate student-level testing assignments and the tracking of student participation and scores across years. ETS systems will verify that students can participate in science testing only once in high school, and that all students have received a science testing registration by the end of grade twelve, in accordance with the CAASPP testing regulations. ETS will provide LEAs with the ability to register students in grades ten and eleven, and will confirm that any previously untested students are automatically registered in grade twelve.

CAST Development

The CAST will consist of operational year 1 in 2018–19, operational year 2 in 2019–20, operational year 3 in 2020–21, and operational year 4 in 2021–22. For all operational years, ETS will develop a sufficient number of discrete items and performance tasks per grade based upon the blueprint and item pool needs, as directed by the CDE, to continue populating the pool to support a multi-stage adaptive test. The CAST Item

Development Plan (IDP) will be provided to the CDE annually using the review process described in Task 1.9. The 2020–21 and 2021–22 IDPs will include the first two years of the three-year plan. The IDP will include an inventory analysis of the item bank and ETS recommendations for item development for that cycle to ensure coverage of the Board-approved blueprint in subsequent operational administrations. The IDP will also present a roadmap for meeting the CAST blueprint requirements over the first three-year operational cycle ending in 2020–21 by listing item types, point values, DOK, and complexity; whether an item is resting, retired, an anchor item, ready for operational use, on practice tests or training tests, on a parent-friendly website, and scheduled to be used in administration year; as well as a summary of development required to sustain continued operational testing. ETS will provide the IDP for the 2018–19 administration in July 2018 October 2018 for the 2019–20 administration, October 2019 for the 2020–2021 administration, and October 2020 for the 2021–2022 administration. Additionally, the October 2021 IDP will address the development plans and propose item utilization demonstrating that the item bank will sustain operational testing through the 2022–23 administration year. ETS will provide a plan (see Table 8) as part of the test specifications deliverable for an annual item refresh rate for the CAST for CDE approval, following to the processes outlined in Task 1.9, in order to be included in the next test administration year. ETS is developing item specifications for CAST as part of the current contract. ETS defines "item specifications" as a set of documents to guide item developers and reviewers on approaches to item development, alignment to performance expectations, and characteristics of the components of the performance expectations (i.e., Science and Engineering Practices [SEPs], Disciplinary Core Ideas [DCIs], Cross Cutting Concepts [CCCs]) and will provide documentation of the test development process for peer review. Following the 2018–19, 2019–20, and 2020–21 administrations, ETS will review the items specifications for potential minor updates based on the previous cycle of development and new information gleaned from data review meetings. Examples of minor updates may include additional phenomena or assessment boundaries.

The draft task models were written in 2016–17, and revisions and refinements to the task models were completed using data and feedback from the pilot test. The first iterations of the item specifications were completed in December 2017; ETS will review these with the CDE each year after completion of the development cycle and field testing and will make minor updates as appropriate. Any updates will be completed by September 30th each year.

CAA for Science Development

The CAA for Science uses an "embedded performance task" design as approved by the SBE that permits closer integration of assessment with classroom instruction. Each embedded performance task (PT) consists of a set of items aligned to two CA NGSS Core Content Connectors, and beginning with the field test, these items will be administered online in TDS. ETS will develop sufficient numbers of embedded PTs that will result in a task item bank that prioritizes coverage of the SBE-approved five-year

blueprint in a multi-year rotating administration blueprint. To address test security concerns due to the embedded design, by February 1, 2019, ETS will provide a plan as part of the test specifications deliverable for an annual item refresh rate (outlined in Table 8) for the CAA for Science for CDE approval, following to the processes outlined in Task 1.9, in order to be included in the next test administration year.

Performance Tasks (PTs) to be administered on the CAA for Science operational test are based on the SBE-approved blueprint. The CAA for Science IDP will be provided to the CDE annually using the review process described in Task 1.9. The IDP will include an inventory analysis of the PT bank and ETS recommendations for PT development for that cycle to confirm coverage of the Board-approved blueprint. The IDP will also present a roadmap for meeting CAA for Science blueprint requirements over the first five-year operational cycle ending in 2023–24. ETS will provide the IDP for the 2018–19 administration in July 2018, for the 2019–20 administration in October 2018, for the 2020–21 administration in June 2019, and for the 2021–22 administration in June 2020. Additionally, the October 2021 IDP will address the development plans and propose item utilization for the 2022–23 administration.

The CAA for Science operational test design is composed of three PTs common to all students in a grade, meaning all students will be administered the same three PTs. In addition, each student will be administered a fourth variable PT for field testing three new PTs for future operational use. This fourth variable PT will be assigned to students at the school level, so that all students at the same school in the same grade are administered the same four PTs. During the 2020–21 and 2021–22 administrations, ETS will field test a total of 18 new embedded PTs, six embedded PTs at each grade. Four test administrations will be conducted:

- For field testing during the 2018–19 administration, ETS will develop or adapt a sufficient number of embedded PTs to yield a target of nine tasks for field testing: three each for grade five, grade eight, and high school.

- For field testing during the 2019–20, 2020–21, and 2021–22 operational administrations, ETS will annually develop a sufficient number of embedded PTs to yield a target of nine total tasks per administration: three each for grade five, grade eight, and high school.

- In addition to tasks for field test and operational testing, for the 2018–19 field test administration, ETS will adapt one existing embedded PT into the new online format to provide a training test. Grade-specific practice tests will be introduced for the 2019–20 operational administration.

ETS will develop and maintain CAA for Science according to SBE-approved blueprints and CAA for Science general ALDs. Formal field testing, content-specific ALD development, scoring, and reporting will be completed, resulting in a fully operational assessment for the 2019–20 administration.

ETS understands that current California state testing regulations require that the CAA for Science summative assessments be available to LEAs as early as September, once the assessment becomes operational. To achieve this goal while also moving the CAA for Science to an online test delivery format, ETS will make the embedded performance tasks available in two steps each year, as follows:

- 2018–19 Field Test Administration

    o Step 1: Non-secure standard information available to LEAs in fall 2018.
    o Step 2: Secure test content available to LEAs in January 2019.

- 2019–20, 2020–21, and 2021–22 Operational Administrations

    o Step 1: Non-secure standard information available to LEAs each September.
    o Step 2: Secure test content available LEAs each September.

This two-step rollout plan confirms a feasible launch schedule while also allowing LEAs to begin embedding PT topics into instruction and to prepare for testing earlier than January. Because the CAA for Science is difficult to equate in a traditional sense, ETS will propose a methodology to the CDE for producing student scores and performance levels on the CAA for Science that are comparable from year to year.

California Alternate Assessments for ELA and Mathematics

Per *Education Code* (*EC*) Section 60640(b)(3), the CAAs for ELA and mathematics is limited to the same grades and subject areas assessed by the Smarter Balanced Summative Assessments (i.e., ELA and mathematics in grades three through eight, inclusive, and grade eleven).

ETS will continue to administer the current design, converting to a pre-equated design when feasible. The use of "pre-equated" test forms enables the reporting of results on the same timeline as other CAASPP assessments.

The core elements of the CAAs for ELA and mathematics include:

- test design and item development to allow for students at all achievement levels, from Essential Understanding to Connector, to show what they know and can do

- accessible and flexible delivery of assessment tasks that allow for diversity of student communication, attention, and sensory needs to show what they know and can do

The CAA for ELA and mathematics IDP will support the use of items derived from the National Center and State Collaborative (NCSC) item bank, to which California has acquired access. ETS modifies NCSC items consistent with the CAA item style guide and embeds these items into the operational forms. The CAA for ELA and mathematics IDP will be provided to the CDE annually using the review process described in Task

1.9. The IDP will include an inventory analysis of the item bank and ETS recommendations for item development for that cycle, detailed in Table 8, to ensure coverage of the Board-approved blueprint. ETS will provide the IDP for the 2018–19 administration in July 2018, for the 2019–20 administration in October 2018, for the 2020–21 administration in October 2019, and for the 2021–22 administration in October 2020. Additionally, the October 2021 IDP will address the development plans and propose item utilization for the 2022–23 administration year.

California Spanish Assessment

The purpose of the CSA is to measure a student's competency in Spanish language arts in grades three through eight and high school for the purpose of:

- providing student-level data in Spanish competency

- providing aggregate data that may be used for evaluating the implementation of Spanish language arts programs at the local level

- providing a high school measure suitable to be used, in part, for the State Seal of Biliteracy

While the complexity of the CSA items is similar to Smarter Balanced items, the CSA is not a translation or adaptation of the Smarter Balanced ELA test.

The targeted test-taking population of the CSA will consist of the following:

- students receiving instruction in Spanish in California

- students seeking a measure that recognizes their Spanish-specific reading, writing, and listening skills

ETS will continue its careful and collaborative design process with the CDE. ETS will work with the CDE to implement the high-level test design for the California Spanish Assessment (CSA) as approved by the SBE. The CSA will assess reading, writing, and listening in Spanish, and will be aligned with the California Common Core State Standards en Español, that include linguistic augmentations specific to the Spanish language. Any revision to the high-level test design will be recommended in July 2018 for the 2018–19 administration, by October 2018 for the 2019–20 administration, by October 2019 for the 2020–21 administration, and by October 2021 for the 2021–22 administration. To be included in the upcoming test administration year, a decision on any new recommendations must be approved by the CDE according to the processes outlined in Task 1.9.

The items to be administered in the field test are based on the SBE-approved blueprint and were reviewed and approved by the CDE. The CSA will be administered within the testing window specified in the CAASPP testing regulations and as directed by the CDE. ETS will submit any recommended revisions to the blueprint to the CDE in July 2018 for the 2018–19 administration, October 2018 for the 2019–20 administration,

October 2019 for the 2020–21 administration, and October 2020 for the 2021–22 administration. To be included in the upcoming test administration year, a decision on any new recommendations must be approved by the CDE according to the processes outlined in Task 1.9.

The CSA will consist of operational year 1 in 2018–19, operational year 2 in 2019–20, operational year 3 in 2020–21, and operational year 4 in 2021–22. For all operational years, ETS will develop a sufficient number of discrete items and passage-based items per grade level based upon the blueprint, as directed by the CDE, to continue to build the pool for linear, grade-level tests through operational year 2021–22. The CSA Item Development Plan (IDP) will be provided to the CDE annually using the review process described in Task 1.9. The IDP will include an inventory analysis of the item bank and ETS recommendations for item development for that cycle (see Table 8 for refresh rates) to ensure coverage of the Board-approved blueprint. ETS will provide the IDP for the 2018–19 administration in July 2018, for the 2019–20 administration in October 2018, for the 2020–21 administration in October 2019, for the 2021–22 administration in October 2020. Additionally, the October IDP will address the development plans and propose item utilization for the next administration year.

A high-level timeline of CSA development activities during the duration of this contract is shown in Table 5.

Table 5. High-Level Test Development Timeline for CSA

Administration Year	Activities
2018–19	• Annual review of item development materials including the test blueprint • Conduct item writer workshop • Develop sufficient number of items and passages for field testing in the 2018–19 administration • Audio-recording for Listening passages • Conduct new item review • Develop practice tests • Administer operational test • Conduct operational data review • Develop grade and content-specific Achievement Level Descriptors (ALDs) • Conduct standard setting • Produce standard setting technical report • Develop score report language using ALDs and score claims • Produce technical report
2019–2020	• Annual review of item development materials including the test blueprint • Conduct item writer workshop • Develop sufficient number of items and passages for field testing in the 2019–20 administration • Audio-recording for Listening passages • Conduct new item review • Administer operational test • Conduct operational data review • Produce technical report
2020–21	• Annual review of item development materials including the test blueprint • Conduct item writer workshop

Administration Year	Activities
	• Develop sufficient number of items and passages for field testing in the 2020–21 administration • Audio-recording for Listening passages • Conduct new item review • Administer operational test • Conduct operational data review • Produce technical report
2021–22	• Annual review of item development materials • Conduct item writer workshop • Develop sufficient number of items and passages for field testing during the 2021–22 and 2022–23 administrations • Audio-recording for Listening passages • Conduct new item review • Administer operational test • Conduct data review • Produce technical report

English Language Proficiency Assessments for California

The major development activity for ELPAC under this contract will be to transition both the Summative ELPAC and the Initial ELPAC Paper-Pencil Tests to a computer-based assessment format. ETS will develop a high-level test design (HLTD) for the ELPAC CBA for both the Summative and Initial ELPAC assessments. Throughout this process, ETS will follow the principles outlined in the "Considerations in the Transition of the ELPAC Paper-Pencil Tests to Computer-Based Assessments" report delivered to the CDE in April 2017 as part of the separate ELPAC contract, with modifications as necessary to meet practical goals such as reporting operational scores on the Summative ELPAC in the spring 2020.

The transition to CBA will:

- Maintain the existing ELPAC test blueprints and task types to the greatest degree possible, maximizing both the efficiency of the transition and the continuities between the ELPAC CBA and the ELPAC PPT

- Make use of digital voice capture

- Identify an appropriate means of assessing Writing for students in Kindergarten, Grade One, and Grade Two that is outside the Test Delivery System providing a way for ETS to score student responses for Summative ELPAC. The Writing domain responses for these grades will be included in the scoring performed by ETS for the LEAs participating in the Rotating Score Validation Process (RSVP— see Task 7.2.C.3). LEAs will receive answer documents, to capture written responses, along with instruction to ship materials back to ETS for back scoring.

- Review and update, as needed, all assessment design documentation (e.g., Test Blueprints, Assessment Claims, Item Writing Guidelines)

- Include test familiarization materials parallel to those on other CAASPP testing titles, which may include two Training Tests (one for K–2 and one for 3–12) and seven full-length Practice Tests (one for each grade or grade span). All Practice Items will be unique and specific to the grade or grade span (that is, practice items will not be shared across grades).

- Include accessibility resources parallel to those for other CAASPP programs (modified as appropriate for the assessment of English language proficiency), including an Accessibility Framework and Accessibility Guidelines to be developed with substantial input from the CDE and from identified external stakeholders. (The Accessibility Framework will model the Smarter Balanced UAAGs [Usability, Accessibility, and Accommodations Guidelines] adapted for the ELPAC CBA and will be similar in style to the archived frameworks produced for CAST and CSA. The Accessibility Guidelines will articulate the general practices that ETS follows to create accessible content for the ELPAC.)

- Conduct a Usability Pilot (including a cognitive labs methodology) to confirm that existing ELPAC items can be administered effectively as a CBA and will continue to gather appropriate evidence about students' English language proficiency

  o ETS will develop an ELPAC Graphics Style Guide based on current CAASPP style guides, and existing items will be updated to reflect those specifications. These items will remain in grayscale format.

- Include the transition of the existing ELPAC item pool to CBA format.

  o Graphics for existing items will be updated as needed to meet computer-delivery and accessibility specifications; however, they will remain in a grayscale format.

- Include development of sufficient new items to provide a 30 percent refresh of Summative ELPAC forms, beginning with the 2020–21 administration (see Table 8 for additional information)

- o Graphics developed for new items may be in color as appropriate for context.

- Include the administration of a standalone field test to be administered to a sample of students in the fall of 2019. This test field test will contain distinct field test forms to support both the Summative ELPAC CBA and the Initial ELPAC CBA

  - o The results of this field test will support:

    - a pre-equated form of the Summative ELPAC CBA to be used in the 2019–20 administration.
    - a pre-equated form of the Initial ELPAC CBA to be available in the summer of 2020 for the 2020–21 administration.
    - threshold score review, with any changes to threshold scores to be brought to the SBE for approval no later than March 2020

  - o The Initial ELPAC PPT will continue to be administered in the 2019–20 administration for the purposes of identification and score reporting.

A high-level timeline of ELPAC CBA development activities for the duration of this contract is shown in Table 6.

Table 6. High-Level Test Development Timeline for CBA ELPAC

Administration Year	Summative ELPAC CBA Activities	Initial ELPAC CBA Activities *All tasks followed by an asterisk are joint Summative and Initial ELPAC tasks.
2018–19	• Develop the high-level test design (HLTD) for review and approval by the CDE and SBE • Review, and update as needed, the assessment design documentation (e.g., Test Blueprints, Assessment Claims, Item Writing Guidelines) • Conduct usability studies and cognitive labs • Develop accessibility guidelines and framework • Establish technical specifications for transition	• Review, and update as needed, the assessment design documentation (e.g., Test Blueprints, Assessment Claims, Item Writing Guidelines)* • Conduct usability studies and cognitive labs* • Develop accessibility guidelines and framework* • Establish technical specifications for transition of items to CBA administration* • Develop specifications for: Item Development,

Administration Year	Summative ELPAC CBA Activities	Initial ELPAC CBA Activities *All tasks followed by an asterisk are joint Summative and Initial ELPAC tasks.
	of items to CBA administration • Develop specifications for: item development, operational tests, Training Test and Practice Test development, and Item Writing Workshops • Conduct Item Writing Workshop • Conduct Speaking range finding • Develop sufficient numbers of items and stimuli for field testing in the 2019–20 administration • Conduct new item review • Transition PPT item pool to CBA • Conduct mode comparability study • Conduct Writing rangefinding	Operational Tests, Training Test, and Practice Test Development, and Item Writing Workshops* • Conduct Item Writing Workshop* • Conduct Speaking range finding* • Develop sufficient numbers of items and stimuli for field testing in the 2019–20 administration* • Conduct new item review* • Transition PPT item pool to CBA* • Conduct mode comparability study* • Conduct Writing rangefinding*

Administration Year	Summative ELPAC CBA Activities	Initial ELPAC CBA Activities *All tasks followed by an asterisk are joint Summative and Initial ELPAC tasks.
2019–20	• Develop training test • Develop practice test • Administer the standalone CBA field test (separately from the Initial ELPAC operational PPT) • Conduct Writing range finding and constructed-response scoring • Develop the preliminary scoring guide for optional use • Administer operational test • Conduct operational data review • Conduct threshold score review study from the CBA field test administration • Produce technical report • Develop specifications for: item development, operational tests, and Item Writing Workshops • Conduct item writing workshop • Conduct Speaking range finding • Develop sufficient numbers of items and stimuli for field testing in the 2020–21 administration • Conduct new item review	• Administer the standalone CBA field test (separately from the Initial ELPAC operational PPT)* • Conduct Writing range finding and constructed-response scoring • Develop the local scoring materials for operational use • Conduct threshold score review study from the CBA field test administration*

Administration Year	Summative ELPAC CBA Activities	Initial ELPAC CBA Activities *All tasks followed by an asterisk are joint Summative and Initial ELPAC tasks.
2020–21	• Annual review of item development materials including the test blueprint • Develop specifications for: item development, operational tests, and Item Writing Workshops • Conduct item Writing workshop • Develop sufficient numbers of items and stimuli for field testing in the 2021–22 administration • Conduct new item review • Conduct Speaking range finding • Develop the preliminary scoring guide for optional use • Administer operational test • Conduct operational data review • Conduct Writing range finding and constructed-response scoring • Produce technical report	• Administer operational test (the Initial ELPAC CBA will be available throughout the year beginning July 1 for LEAs to administer as needed to ELs that transfer into their LEA during the ELPAC administration year)

Administration Year	Summative ELPAC CBA Activities	Initial ELPAC CBA Activities *All tasks followed by an asterisk are joint Summative and Initial ELPAC tasks.
2021–22	• Annual review of item development materials including the test blueprint • Develop specifications for: Item Development, Operational Tests, and Item Writing Workshops • Conduct Item Writing Workshop • Develop sufficient numbers of items and stimuli for field testing in the 2022–23 administration • Conduct Speaking range finding • Conduct new item review • Develop the preliminary scoring guide for optional use • Administer operational test • Conduct operational data review • Conduct Writing range finding and constructed-response scoring • Produce technical report	• Administer operational test (the initial ELPAC CBA will be available throughout the year beginning July 1 for LEAs to administer as needed to newcomers that arrive in their LEA)

Alternate ELPAC CBA

For the Alternate ELPAC CBA, ETS will develop a High Level Test Design (HLTD) that proposes a customized solution that meets California's needs. ETS will take into account California stakeholder input, while at the same time building on national work from other organizations to best serve the distinct needs of the intended test population. The ETS plan for the design and development of this new assessment will include involvement of both ETS internal and external national experts in alternate and EL assessments.

The HLTD will specify how the CDE can (1) meet the legal requirement to measure student annual progress and (2) include the data in the California School Dashboard as already approved by the SBE and in any future additions to the Dashboard.

ETS will use a development process for the Alternate ELPAC CBA that will allow for flexibility in its high-level test design based on ongoing discussions with the CDE, California stakeholders, and identified external experts. ETS has made the following the key assumptions:

- For the Summative Alternate ELPAC CBA, ETS will use an "Operational Field Test" model to have scores and performance levels available as soon as 2021, with standard setting following the operational field testing.

- For the Initial Alternate ELPAC CBA, ETS will launch the operational administration in 2021–22 based on preliminary score thresholds established in summer 2021 and with those score thresholds to be reevaluated in 2022

- A single pool of items will be developed and field tested to support the operational launch of both the Summative and Initial Alternate ELPAC CBA. After the field test, items will be segregated into separate pools for either Summative or Initial use.

- ETS will develop test familiarization materials (e.g., training and practice tests) following the CAASPP model. These tests will contain the same accessibility features as the Alternate ELPAC CBA operational tests.

A suggested high-level timeline of Alternate ELPAC CBA development activities for the duration of this contract is shown in Table 7. These activities are subject to change pending SBE approval of the HLTD.

Table 7. High-Level Test Development Timeline for Alternate ELPAC CBA

Administration Year	Activities
2018–19	- Hold program kickoff meeting - Develop Theory of Action - Document and provide rationale for use of standards-based CCSSO-developed connectors to serve as the foundation of the Alternate ELPAC - Develop an HLTD document and review with California stakeholders and external assessment experts - Finalize HLTD and obtain SBE approval - Create drafts of assessment design documents - Review assessment plans and standards with external experts - Establish technical requirements - Create pilot item development specifications - Create item writing workshop specifications - Develop pilot items, Speaking rubrics, and Writing rubrics - Conduct panel reviews of pilot items
2019–20	- Conduct Speaking range finding and review Speaking rubrics - Conduct pilot administration - Conduct cognitive lab study - Conduct Writing range finding and review Writing rubrics - Finalize test blueprint, claims statement(s), and general PLDs, including SBE approval - Adapt current CAASPP accessibility framework - Develop grade- and domain-specific achievement level descriptors - Create field test specifications - Create item authoring guidelines - Create item development specifications - Create item writing workshop specifications - Conduct item writing workshops

Administration Year	Activities
2020–21	- Conduct panel review meetings of new items - Conduct Speaking range finding - Conduct Writing range finding - Administer operational field test (scores reported for Summative Alternate ELPAC CBA) - Conduct data review meeting - Conduct standard setting, including SBE approval - Launch Initial Alternate ELPAC CBA
2021–22	- Create item development specifications - Create item writing workshop specifications - Conduct item writing workshops - Conduct panel review meetings of new items - Conduct Speaking range finding - Conduct Writing range finding - Administer operational Summative Alternate ELPAC CBA - Conduct data review meeting

6.2. Item and Task Development

All items that ETS develops will meet the technical criteria established in the American Educational Research Association (AERA), the American Psychological Association (APA), the National Council on Measurement in Education (NCME) Standards for Educational and Psychological Testing, and are developed in accordance with the principles of Universal Design to improve access to assessments for all students. In addition, ETS will develop items that conform to the CDE-approved California Assessment System Item Acceptance Criteria Checklist. The California Assessment System Item Acceptance Criteria Checklist will be updated annually by August for CDE review based on the past year's activity and recommendations. To be included in the upcoming test administration year, a decision on any new recommendations on the checklist must be approved by the CDE according to the processes outlined in Task 1.9.

Item Refresh Rates

ETS commits to the item refresh rates presented in Table 8.

Table 8. Annual Operational Refresh Rates by Program

Program	Annual Operational Refresh Rate*	Considerations
CSA	20% for grades 3–8 and 30% for high school	
CAST	10–20% for discrete items; one PT if operational needs allow	These rates may be revisited/revised as the pool deepens and the test structure (e.g., linear versus MST) is finalized.
CAA for Science	33–66% (one or two PTs per year)	Refresh rates are subject to other constraints such as meeting the five-year blueprint, year-to-year equating analyses, and survival rate of PTs.
CAA for ELA/Math	10–20% items	
Summative ELPAC CBA	30% items	Form refresh will begin in 2021.
Initial ELPAC CBA	30% items	N/A (Initial ELPAC CBA will not be refreshed under this contract)
Alternate ELPAC CBA	TBD pending SBE approval of HLTD	

*Refresh rate specifications for each program will be further detailed in test specifications documents.

ETS Item and Task Development Processes

In Table 9, ETS describes the standard item and task development processes that ETS will use for the California assessment system. ETS, in collaboration with the CDE, will develop schedules for each new assessment that detail the delivery and approval dates. ETS will present the schedules for CDE review and approval as part of the Planning Meetings described in Task 1.3. Note that ETS discusses both standard processes for more traditional items, as well as the robust processes ETS uses for the development of more complex items types (e.g., interactive and scenario-based tasks).

Table 9. Summary of Process for Item and Task Development for California Assessment System

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 1: Review and Revise Development Support Materials	• review global notes from item review meetings • consult with the CDE • review Item Type Specifications to inform next development cycle	Item Specifications Item Type Specifications Style Guide Item Acceptance Criteria Checklist	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 2: Create and Submit Item Development Plans (IDPs)	- analysis of current item bank - detailed development targets by content classification and grade - identification of all deliverables, including items, rubrics, stimuli, copyright permission, etc. - definition of metadata that will be associated with all items and tasks, developed by operational year 2 and done in conjunction with the CDE. Note: If there is additional metadata required for peer review and/or alignment studies, ETS will make modest changes in conjunction with the CDE. - description of major review steps - a detailed schedule for the development process	Item Development Plan	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 3: Recruit and Train Item Writers	• selection and training of item writers • item writing assignments	Item Writing Workshop Plan	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]
Step 4: Create Items and Tasks	• draft quality items ranging from the simplest to the most complex and innovative • develop associated metadata documenting item alignments to the framework	Not applicable	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]
Step 5: Conduct Internal Reviews at ETS	• internal content reviews • an internal editorial review • an internal bias and sensitivity review	Not applicable	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 6: Submit New Items and Tasks for CDE Review	- review all items, as submitted by ETS - revise items based on CDE input - confirm items are appropriate for educator review	All newly developed items	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]
Step 7: Conduct External Reviews with California Educators (Item Review)	- recruit external reviewers - prepare the necessary materials - facilitate review - record results - reconcile with the CDE	Item Review Meeting Summary Report	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]
Step 8: Submit New Items and Tasks to the CDE	- ETS revises items according to CDE feedback - the CDE provides approval of items for field testing using the California assessment system Item Acceptance Criteria	Not applicable	CAA for ELA CAA for Mathematics CAA for Science CAST CSA ELPAC CBA[*] Alternate ELPAC CBA[*]

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 9: Develop Accessibility and Alternate Formats	• Text to Speech (read aloud) – ETS will listen to items using the approved voice pack and create phonetic pronunciations for mispronounced words • Text to Speech (screen reader) – ETS will listen to items in JAWS to ensure items are rendered as expected • English glossary – Smarter and ETS guidelines for words to gloss • Translation glossaries – Smarter and ETS guidelines for words to gloss for ELs • ASL – Smarter and ETS guidelines for content that should be translated to ASL	Accessibility accommodations specific to each assessment	CAST (TTS, English Glossary, Translation Glossaries, ASL Stacked Spanish, Braille) CSA (TTS, Spanish Glossary, Refreshable Braille, Print on Demand, Closed Captioning) ELPAC CBA[*] (to be determined as part of the transition activities) Alternate ELPAC CBA[*] (to be determined as part of the transition activities)

Process Step	Associated Tasks	Deliverables to the CDE for Review and Approval	Tests for which the Process Step is Applicable
Step 9 (continued): Develop Accessibility and Alternate Formats	• Stacked Spanish – Smarter and ETS guidelines for translating content to Mexican-Spanish • Braille – APH and ETS guidelines for creating content that can be delivered via refreshable braille and/or embossed content for on-demand embossing • Print on Demand • Closed Captioning – use Smarter and ETS guidelines for closed captioning		

*ELPAC CBA and Alternate ELPAC CBA each include both the Initial assessment and the Summative assessment.

This table will be revised and communicated internally and resubmitted to the CDE once the new item review process is finalized and approved by the CDE. ETS will review this process annually in July with the CDE as part of continuous improvement efforts.

Step 1: Review and Revise Relevant Item Development Supporting Documentation

After completing each year's item development, ETS staff will review notes from CDE collaborations and global recommendations from IRCs. By August annually, ETS will propose revisions to individual program Item Specifications, the CAASPP Style Guide, and the California assessment system Item Review Acceptance Criteria, where appropriate. The CDE will approve these revisions, according to the processes outlined in Task 1.9 for use in the next test administration year.

Step 2: Create and Submit Item Development Plans

After completing an annual review of the existing item pools, ETS will complete an Item Development Plan (IDP) for item and task development for each assessment prior to beginning new development. Each IDP will provide detailed information about items

currently available in the bank, and indicated areas targeted for development in the coming year. Such targets may include specific standards or item types to be included in the upcoming test administration year. A decision on any new recommendations must be approved by the CDE according to the processes outlined in Task 1.9.

Step 3: Recruit and Train Item Writers

To achieve a strong representation of educators from California in the item development process, ETS with the guidance of the CDE will recruit California educators. When each new development cycle begins, ETS will conduct item writing workshops for each program that provide an overview of the subject framework, subject-specific guidelines, item writing techniques, factors that influence item difficulty, criteria for selecting stimulus materials, accessibility considerations, determination of appropriate item types to target specific measurement goals, translatability considerations, bias/sensitivity guidelines, and the California assessment system Item Acceptance Criteria Checklist.

ETS will give item writers assignments that include additional desired item attributes such as difficulty level, use of specific stimuli including media elements, accessibility guidelines, and tools and simulations. Outside item writers will sign and submit standard confidentiality agreement forms and will submit draft items to ETS electronically using appropriate security measures. ETS will provide a copy of the confidentiality agreements to the CDE upon request.

Step 4: Create Items and Tasks

All newly developed items are created to accurately measure specific content to provide meaningful information based on student responses. ETS will only approve and develop those items that adhere to the ETS Standards for Quality and Fairness and the California Assessment System Item Acceptance Criteria Checklist as revised annually.

Step 5: Conduct Internal Reviews at ETS

ETS has well-established procedures for reviewing all items to ensure they meet California's expectations. Throughout this multi-step item review process, ETS assessment specialists evaluate the match of the items to the standards, the appropriateness of the items to the population being assessed, the importance of the construct being assessed, and the implications for instruction. Another key aspect of item reviews is ensuring conformity with a given assessment's Item Specifications and Style Guide. In conjunction with the California Assessment System Item Acceptance Criteria Checklist, if an item is deemed to be unrelated to the content standards, to not be age appropriate, or to provide inappropriate models for instruction, it is revised or rejected.

Step 6: Submit New Items and Tasks for CDE Review

All newly developed items will be submitted to the CDE in batches throughout the development cycle. ETS will submit the items to the CDE according to an agreed-upon schedule allowing enough time for the CDE's review and revision based on the

California assessment system Item Acceptance Criteria. ETS will apply CDE edits prior to delivering items to educator reviews.

Step 7: External Reviews with California Educators

All items are reviewed by external California educator panels upon the completion of item editing. Each item is reviewed for content and bias/sensitivity to confirm that the item is of high quality, that it has accurate content alignment for that content area, that it measures the skill in a sound manner, that it does not unfairly advantage/disadvantage any student, that it is not offensive to students, parents, or the public, and that it adheres to the California Assessment System Item Acceptance Criteria Checklist.

ETS will prepare the necessary materials and facilitate review for each meeting. ETS will recruit educators and prepare and provide all required review materials. In educator recruitment, ETS recommends seeking educator representatives reflecting the broad diversity of the state's population to ensure that many perspectives are represented in committee deliberations. Meetings will be held either in person, or in a moderated online review.

ETS facilitators will train educators about universal design principles, to review items, and to provide recommendations about such topics as:

- Validity of the content

- Alignment to the standard

- Appropriateness of the language load and match to grade level

- Appropriateness for the population

- Appropriateness of graphics/stimuli

- Free from bias and sensitivity

The full list of topics for consideration is contained in the California Assessment System Item Acceptance Criteria Checklist.

ETS facilitators will record all committee input including the majority recommendation of "Accept as is," "Accept with edits," or "Reject." At the conclusion of each meeting, or within two to four business days, ETS facilitators will conduct reconciliation with CDE representatives to discuss issues or discrepancies in notes or group recommendations, based on the ETS-provided notes. ETS will provide summary results from the review meetings, including the total number of items accepted as is, the number of items with revision, and the number of items rejected. ETS will use the decisions from reconciliation with CDE to complete a final revision and internal review of items prior to submitting to CDE for approval.

Following the review meetings and discussions with CDE representatives, ETS will apply edits based on the final determinations made in post committee reconciliation.

Step 8: Submit New Items and Tasks to the CDE for Resolution

ETS is committed to providing the CDE sufficient time to review and approve all content materials. In keeping with the California Assessment System Item Review Process Map, after applying post-item review committee edits, ETS will submit final items to the CDE for review and approval. Metadata for the standards to which ETS is developing items will be available on all item cards, including rubrics for constructed-response items. The CDE will review items according to the California Assessment System Item Acceptance Criteria Checklist and determine whether or not to approve individual items. Items that do not meet the criteria will be rejected. ETS will have the opportunity to make revisions for resubmission to the CDE in a mutually agreed upon process and timeline.

Step 9: Develop Accessibility and Alternate Formats

Throughout the item development process, ETS content staff will collaborate with members of the ETS Accessibility and Alternate Formats (AAF) group to develop and deliver items that are accessible to the greatest number of students possible. ETS assessment specialists work closely with the AAF group throughout the process to establish content validity in the adaptations. The AAF group collaborates with approved braille vendors to produce embossed braille materials. In addition, the AAF group works with assessment specialists to develop alternate text for images, accurate pronunciations for TTS, and necessary adaptations for braille.

6.2.A. Pilot Testing

During the terms of this contract, ETS will conduct pilot testing of the ELPAC CBA and Alternate ELPAC CBA.

ELPAC CBA Usability Pilot Test

During the 2018–19 administration, ETS will administer a Usability Pilot in which approximately 150 existing ELPAC paper-based items, after being converted to CBA format, will be administered to small groups of students via the TDS. The items administered in the Usability Pilot, which will likely be taken from among the current ELPAC Practice Test items, will be aligned to the current test blueprint and to the California ELD Standards. In addition, all ELPAC task types have been reviewed and approved by the CDE to ensure that they are amenable to conversion to CBA format.

In preparation for the Usability Pilot, ETS will develop a Usability Pilot Specifications document for CDE review. This document will detail the purpose, methodology, and evaluation criteria for the Usability Pilot, including the use of a cognitive labs methodology as part of the study design. ETS will use the results of the Usability Pilot to finalize detailed specifications for how each ELPAC task type will be modified for conversion to CBA format. ETS will use the resulting Specifications for Conversion of ELPAC Task Types to CBA in the transition of the entire ELPAC pool of paper-based

items to CBA format to support CBA field testing and launch of the both the Initial ELPAC CBA and the Summative ELPAC CBA.

Alternate ELPAC CBA Pilot Test

During the 2019–20 administration, ETS will administer a pilot test (supporting both the Alternate ELPAC Initial and the Alternate ELPAC Summative) to evaluate intended task types for suitability for students and test administrators and to gather information from test examiners about relative student performance expectations on the Initial Alternate ELPAC CBA and the Summative Alternate ELPAC CBA, respectively. ETS will use a cognitive labs methodology as part of the study design. More detailed information about the design of the Alternate ELPAC CBA Pilot Test will be provided in the HLTD.

6.2.B. Field Testing

ETS will administer a stand-alone field test for CAA for Science in the 2018–19 administration, ELPAC CBA combined Initial and Summative field test in fall of 2019, and for the Alternate ELPAC CBA separate Initial and Summative field tests during the 2020–21 administration. ETS also understands the expectation of every eligible student to take part in the field test for both the CAA for Science and the Alternate ELPAC CBA.

CAA for Science Field Test

As part of the item development plans described in Task 6.1 for CAA for Science, ETS will develop field testing plans with the CDE that best suit the CAA for Science. The CAA for Science field test will occur during the 2018–19 administration.

For planning purposes, ETS assumes that a field test plan will describe the following:

- Purpose of the field test and base criteria for evaluating field test results

- Process by which relevant test administrator observations and student comments can be collected from post-test administration questionnaires

- Preparation, review, and production process for all materials for field testing, whether the materials are computer-based or paper-pencil

- Field test administration directions

- Proposed schedule of tasks, deliverables, and field test activities

- Scoring activities

- Planned analysis and field test report

- Communication and training plan to LEAs

ETS will collaborate with the CDE to finalize the CAA for Science field test plan and to schedule the field test administrations to minimize disruption to instructional activities and to avoid conflicts with other operational assessment administrations.

ETS will provide the CDE the field test plan for the CAA for Science by July 2018 and in accordance with the processes outlined in Task 1.9.

Combined Initial/Summative ELPAC CBA Field Test and Mode Comparability Study

During the 2019–20 administration, ETS will administer a standalone field test to support development of both Initial and summative ELPAC CBA in September 2019. This field test will be used to generate item-level statistics and to confirm the test specifications for the operational version of both the Initial and summative ELPAC CBA. The field test will be open to all LEAs interested in participating, and will be messaged to the LEAs as an opportunity for students and administrators to become familiarized with the new ELPAC CBA. In order to control cost for hand scoring, a fixed number of approximately 2,000 random responses per unique item will be scored by ETS to obtain reliable item statistics. ETS does not consider it likely that significant changes will be made to the test blueprint, if any changes to the test blueprint are needed, the blueprint will be provided to the SBE for approval.

Pre-equated summative ELPAC for spring 2020 and pre-equated initial ELPAC for summer 2020 will be generated based on the combined 2019 fall field test. Three CBA field test forms per grade/grade span will be administered to sample of approximately 2000 students per field test form across California. One separate shorter field test form or exit points within full length field test forms will be provided specifically for newcomer students taking ELPAC as initial assessment to lessen the burden on newcomer students. It should be noted that newcomer students will still be administered paper-and-pencil initial ELPAC in the 2019–20 administration to determine their ELAS status. It is anticipated that the mode comparability between the PPT and CBA will vary across domains and grade/grade spans, therefore the combined CBA field test includes both vertical and horizontal linking items so that new reporting scale may be created for the ELPAC CBA.

ETS will develop new reporting scales for the ELPAC CBA that are different from the current ELPAC PPT scales. There are three main arguments for developing new ELPAC CBA reporting scales:

1. Comparability between the PPT and CBA test modes cannot be assumed without empirical evidence.

    o For the Initial ELPAC, ETS anticipates that the PPT and CBA test modes are not likely to be comparable due to the target student population. Initial ELPAC assessments are taken by students newly enrolled in California schools with the highest volume in grade K and grade 1. Online delivery of the Initial ELPAC requires students to have sufficient computer skills, and the Initial ELPAC assessments are taken by students newly enrolled in

California schools with the highest volume in grades K and 1. The online format can therefore interfere with the construct of English language proficiency which the Initial ELPAC is intended to measure.

o For the Summative ELPAC, one can argue that students are more likely to have sufficient skills for interacting with ELPAC online. However, it is most likely that the extent of comparability between ELPAC PPT and CBA will vary by domain and test level (grade/grade span). For example, the PPT and CBA are more comparable for older students, especially students in grade 3 and up who are experienced with the online CAASPP testing program. Students in grades K–2 (i.e., the grade span comprising the largest volume of students) will likely not have this experience. Summative ELPAC reporting scales consist of two continuous common scales in oral language and written language scales (vertical scales) spanning from grades K–12. The variable comparability between PPT and CBA may not allow ETS to place the CBA onto the ELPAC PPT reporting scale and still maintain the relationship between adjacent grade/grade span tests.

2. The CBA mode allows ETS to use technology to update the current PPT tasks to be more authentic and provide better measurement.

o The Listening test delivered in the PPT administration includes test items and response options on paper before the listening stimuli is delivered to students. This is an unintended scaffolding, which students receive due to the limitation of PPTs. ETS recommends that in the CBA administration, listening items and response options should appear after the listening stimuli is delivered to students so that the Listening test is more authentic. It is likely that the Listening test will become more challenging for students and therefore will provide better measurement of student proficiency in listening.

o The PPT Speaking test is scored at the time of administration. With the CBA administration, voice captures will be deployed such that educators can score Speaking responses at a different time and will be able to replay student responses for scoring. This can allow for a smaller number of highly trained scorers to score the Speaking test and potentially improve the reliability of the Speaking score. It also introduces a source of variation for Speaking scores between PPT and CBT modes.

3. Developing new reporting scales will allow us to implement lessons learned from the ELPAC PPT administration.

o The development of the ELPAC PPT reporting scales started from the 2017 ELPAC summative and initial field tests. Because of the pre-equated nature of ELPAC, very limited updates can be implemented for ELPAC without disrupting the reporting scales built using the field test. For example, ETS cannot update the scoring rubrics for operational

administration of the Speaking and Listening domains, because ETS based the items parameters used for deriving operational scores on the field test. However, ETS have learned from the 2018 PPT administration that the Speaking rubrics might be too lenient. Developing new reporting scales will allow us to reconsider and update the rubrics as necessary.

A mode comparability study will also be conducted at the same time with the combined Initial/Summative field test where a reprint of the 2018 paper-pencil Summative ELPAC form for all grade/grade spans will be administered to a sample of approximately 1,500 students per grade/grade span. The 1,500 students taking the paper form is in addition to the approximate 6,000 student per test level participating in the CBA field test. Because of the expectation of English language proficiency growth, especially for young students, performance data for the comparability study is required to be obtained within a CDE approved time period. The goal for the mode comparability study is to create a concordance between the ELPAC PPT and CBA scales for tracking student performance over the transition between PPT and CBA.

Alternate ELPAC CBA Operational Field Test

During the 2020–21 administration, ETS proposes administering an operational field test to obtain item statistics and information regarding test form specifications for both the Initial Alternate ELPAC CBA and the Summative Alternate ELPAC CBA. This is defined as an operational field test because the results will be post-equated and reporting scales will be established after the operational field test administration. The item pool and reporting scales established in the operational field test for Alternate ELPAC could be used locally for the 2020–21 Initial Alternate ELPAC CBA to allow placement of students within 30 days of enrollment. Since post-equating analyses is required for the operational field test, student score reporting for the 2020–21 Summative Alternate ELPAC CBA may be delayed with CDE approval. ETS will formally propose and seek the CDE's approval of these plans in an Alternate ELPAC CBA Field Test Plan document.

*Embedded Field Testing for CAAs (ELA, Mathematics, and Science) CAST, CSA,
ELPAC CBA, and Alternate ELPAC CBA*

ETS will include plans for ongoing embedded field testing of new items in the operational administrations of the CAAs (ELA, mathematics, and science), CAST, and CSA. The field test plans will be included as part of the IDP for each program. ETS will review the constructed-response field test items to identify any crisis papers. When a crisis paper is identified, ETS will notify the student's LEA following the process described in Task 8.

Once the ELPAC CBA and Alternate ELPAC CBA become operational, they will include embedded field testing of new items. ETS will continue to review the field test items to identify any crisis papers.

Embedded Smarter Balanced Field Test

ETS currently implements the embedded performance task field test design as required by Smarter Balanced and assumes that the same field test design will be used for future administrations. ETS will provide the responses to the field test items to Smarter Balanced. ETS assumes that scoring of the field test responses will be completed by Smarter Balanced. ETS will review the Smarter Balanced constructed-response field test items to identify any crisis papers. When a crisis paper is identified, ETS will notify the student's LEA following the process described in Task 8. Additional information about activities related to the Smarter Balanced embedded performance task field test are included in Tasks 7 and 8.

6.2.C. Forms Construction

ETS staff will collaborate with the CDE to build and review forms that adhere to test design and statistical specifications, and the CDE will have access to proposed forms rendered in AIR's system. Additional details of the forms construction requirements will be included in the test specifications documents. Test specifications will be reviewed in July 2018 for the 2018–19 administration, by October 2018 for the 2019–20 administration, by October 2019 for the 2020–21 administration, and by October 2020 for the 2021–22 administration with the CDE**.** To be included in the upcoming test administration year, decisions on any revisions must be approved by the CDE according to the processes outlined in Task 1.9.

6.3. Standard Setting (for CAST, CAA for Science, CSA, ELPAC CBA, Alternate ELPAC CBA, and Initial ELPAC Paper-Pencil Test

ETS will provide the CDE with a sound and defensible standard setting process. ETS will collaborate with the CDE, and as appropriate with the TAG, to provide the necessary plans and materials for approval. ETS understands the needs of the CDE regarding achievement-level descriptors (ALDs) for CAASPP, performance-level descriptors (PLDs) for ELPAC and Alternate ELPAC CBA, and standard setting, and will deliver reports in a timely manner to gain input from the CDE and the California public prior to SBE approval.

ETS will conduct the following standard setting activities for CAST, CAA for Science, CSA, and Alternate ELPAC CBA (both summative and initial assessments):

- Develop General ALDs or PLDs.

- Develop grade- or grade-span and content-specific descriptors, hereafter referred to as Range ALDs or Range PLDs.

- Recruit educators with appropriate experience for Range ALD or Range PLD meetings and for standard setting.

- Develop Reporting ALDs for use on score reports.

- Prepare data and materials and conduct standard setting.

- Develop the standard setting technical reports.

- Prepare collateral materials such as introductory language and ALDs and PLDs in web-friendly formats that may be used to communicate with stakeholders. This includes a single ALD document for each assessment that provides information on the process to develop ALDs, and the purpose of the General ALDs, Content- and Grade-Specific Range ALDs, and Reporting ALDs.

- For ELPAC CBA, ETS will analyze data from the combined Initial and Summative fall 2019 field test, incorporate results of the mode comparability analyses, and provide recommendations to the CDE and the TAG for the operational administrations of each. If the analysis suggests that additional confirmation of the test results is needed, ETS is prepared to conduct threshold score reviews with educators and stakeholders. Because there is no anticipated change in the purpose of the ELPAC CBA, nor to the standards to which the assessment is aligned (2012 CA ELD Standards), ETS assumes that the existing ELPAC General and Range PLDs will be used for the ELPAC CBA. The CDE will make the final determination and will direct ETS as to the need for threshold score reviews for ELPAC CBA. If revised PLDs are required, ETS will make available the revised descriptors and necessary documentation; if revised threshold scores are required, ETS will provide the necessary documentation to the CDE for peer review.

- For paper-based Initial ELPAC, implement a review of the preliminary threshold scores.

Table 10 provides a high-level timeline of the activities related to standard setting, pending SBE approval of the test designs and general ALDS for each assessment.

Table 10. High-Level Timeline of Standard Setting Activities by Assessment

Program	General ALDs & PLDs	Range ALDs & PLDs (Conduct Educator Review Panel)	Standard Setting Educator Panel Workshop*	Reporting ALDs & PLDs
CAA for Science	Approved by SBE in January 2018	June 2019	August 2020 Present to SBE for approval September 2020	September 2020

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Program	General ALDs & PLDs	Range ALDs & PLDs (Conduct Educator Review Panel)	Standard Setting Educator Panel Workshop*	Reporting ALDs & PLDs
CAST	Approved by SBE in November 2017	March 2019	July 29 – August 2, 2019 Present to SBE for approval September 2019	September 2019
CSA	Approved by SBE in November 2017	July 2018	August 12 – 16, 2019 Present to SBE for approval September 2019	September 2019
Alternate ELPAC CBA (Summative and Initial)	November 2019–January 2020 Present to SBE for approval March 2020	April–October 2020 Development and panel review	April 2021 Present to SBE for approval May 2021	July 2021
Summative and Initial ELPAC CBA	PLDs developed as part of previous contract	Developed as part of the previous contract	October 2019 (threshold score review, if needed) Present to SBE for approval November 2019	November 2019
Paper-based Initial ELPAC Preliminary Threshold Score Review	PLDs developed as part of previous contract	Not Applicable	Teacher rating data collected via survey fall 2018	Not Applicable

* Dates are dependent on availability of sufficient time to complete all pre-work for standard setting, once a sufficient and representative sample size of student responses is available. Panel-recommended threshold scores, and associated data, are delivered to the CDE within one week of the standard setting workshop.

Development of General Performance-Level Descriptors

The general PLDs for ELPAC were developed in the previous contract and will continue to be used for ELPAC CBA. The general ALDs for CAST, CAA for Science, and CSA were also developed in the previous contract.

For the Summative and Initial Alternate ELPAC CBA, ETS will collaborate with the CDE to develop draft general PLDs to be submitted to the SBE for approval. The process will require approved content standards for the assessment of students who are ELs with the most significant cognitive disabilities. The draft statements will reflect the general expectations for performance levels for the Summative and Initial Alternate ELPAC CBA, aligned to the approved standards. ETS assumes two performance levels for the Initial Alternate ELPAC CBA (i.e., English Learner or Initial Fluent English Proficient) and a maximum of three levels for the Summative Alternate ELPAC CBA.

Recruiting Educators for Standard Setting-Related Workshops

To minimize risk of having too few educators on a grade-based panel, recruitment efforts will include educators who work with more than one grade, where possible. In the tables that follow, the number of panelists are the targeted number for each panel; minimum numbers must be reached in order to hold the panel meetings. For Range ALD workshops, five educators are needed in each grade- or grade-span panel room; for standard setting workshops, eight educators are needed in each grade- or grade-span panel room. It is reasonable to have an educator originally assigned to an adjacent grade or grade-span panel to move to a proximal grade, as this provides articulation to the adjacent grade, however this must be done with approval by the CDE. ETS will have full responsibility for recruiting sufficient numbers of educators approved by the CDE. In the case where there are not enough educators to meet the minimum for a panel based on these criteria, the work for that panel should be rescheduled at ETS's expense.

Development of Range Achievement-Level and Performance-Level Descriptors

ETS will propose a process to develop grade-specific Range ALDs grade CAA for Science, CAST and CSA, and Range PLDs for Alternate ELPAC CBA. ETS will produce final approved Range ALDs and Range PLDs for use at the standard setting workshops and in the development of text for score reports and web publication.

For Range ALD or PLD workshops, ETS will conduct panel meetings of California educators recruited by ETS and approved by the CDE, prior to the standard setting workshops. The panels will identify and discuss the knowledge and skills required of students in each grade and subject area for each level, aligned to the SBE-approved general ALDs or PLDS and to the approved content standards for the assessment. Most participants will be educators currently teaching the population of students taking the

assessment, currently licensed in the subject and grades, and with five or more years of teaching experience.

- For CAA for Science, educators targeted for participation will be familiar with the California Next Generation Science Standards (CA NGSS) and have practice working with the CA NGSS Content Connectors (CA NGSS Connectors) and Essential Understandings (EUs). Prior to the CAAs for Science ALD workshop, participants will be provided with a pre-workshop assignment on the CA NGSS Connectors and EUs, which will prepare them for the activities of the workshop. The CAA for Science ALD workshops can occur as soon as the blueprints and general ALDs are approved by the SBE. Final blueprints and standards are essential elements of the ALD and PLD process.

- For CAST, educators targeted for participation will have indicated that they are currently teaching students taking the CAST assessment, and that they are familiar with the CA NGSS. These participants will be provided a pre-workshop assignment on the CA NGSS, and the CAST General ALDs, which will prepare them for the activities of the workshop. Due to the complexity of the new science standards, extra time will be allowed for participant training and discussion of the CA NGSS during the workshop.

- For CSA, educators targeted for participation in the workshop will have indicated that they are working with the student population of CSA test takers, and that they are familiar with the California Common Core State Standards en Español (CCSS en Español). The pre-workshop assignment for participants working on the CSA ALDs will be similar to the CAA for Science, but will focus on the CCSS en Español and CSA General ALDs.

- For the Alternate ELPAC CBA, educators targeted for participation will be selected from a limited pool of educators. In order to include the variety of expertise needed, recruitment targets should include educators who are working with the students identified as ELs, those who are working with students classified as having the most significant cognitive disabilities, including students who are not ELs, and where available, educators who are working with students who are both ELs and have the most significant cognitive disabilities (the Alternate ELPAC CBA student population). ETS will collaborate with the CDE to confirm the recruitment targets can be met.

For all ALD and PLD work, ETS staff with content knowledge and facilitation experience will conduct all training and facilitation. The workshops will be conducted in Sacramento, CA, and prior to the start of each ALD or PLD workshop, ETS will present the plan according to the established review process, and will conduct a walkthrough with the CDE of the workshop process.

ETS understands the challenges associated with recruiting, in particular from a specialized pool of educators as will be needed for each of the four assessments: CSA,

CAST, CAA for Science, and Alternate ELPAC CBA. Recruiting efforts will include utilizing contact lists of known California educators from these populations to establish necessary representation. All educators invited to participate must be approved by the CDE; the recruitment process will also include identification of educators who will serve as alternates should selected educators be unavailable.

As shown in Table 11, ETS proposes a four-panel workshop for the CSA, which will include two grades in each grade-based panel, including three representatives at each grade, and for high school, six to seven high school educators. ETS anticipates a three-day ALD workshop for the CSA. The resulting ALD documents will be edited and a draft provided to the CDE for review prior to preparing a final document for SBE review and approval.

For CAST and CAA for Science, ETS will recruit a group for the ALD workshops with a configuration shown in Table 12. Each panel will include educators from only one grade (grade 5 or grade 8), except for the high school panels. Educators on the high school panel will be selected to represent the range of high school grades. The configuration for CAST and CAA for Science assessments will be determined in consultation with the CDE; ETS anticipates, for example, excluding high school science educators currently teaching only grade twelve.

For Alternate ELPAC CBA, which is a grade-span test, each panel will include educators across two grades or grade-spans, as shown in Table 13. The configuration of panels will align with the high-level test design (HLTD).

Table 11. Sample Panel Configuration for CSA Range ALD Workshops

Grades	Number of Panelists
3–4	6–7
5–6	6–7
7–8	6–7
High school	6–7
Total	**24–28**

Table 12. Sample Panel Configuration for CAST and CAA for Science Range ALD Workshop

Grades	CAST Number of Panelists	CAA for Science Number of Panelists
5	6–7	6–7
8	6–7	6–7

Grades	CAST Number of Panelists	CAA for Science Number of Panelists
High school	6–7	6–7
Total	**18–21**	**18–21**

Table 13. Sample Panel Configuration for Summative and Initial Alternate ELPAC CBA Range PLD Workshop (Grade Spans Subject to Change Pending SBE Approval of an HLTD for Alternate ELPAC CBA)

Grades	Number of Panelists
K and 1	6-7
2–3	6-7
4–5	6-7
6–8	6-7
High school	6-7
Total	**30-35**

Once selected, panelists will participate in the grade-band and content area for which they have experience. Each panel will work in a small group to review draft grade- and content-specific Range ALDs or PLDs developed by ETS assessment specialists, the assessment blueprints, and additional materials such as exemplar items. Based on review and discussion during the workshops, the ETS panel facilitator will make edits as suggested by the panelists. On the last day of the workshop, all available panelists will review and discuss rationales made in panel rooms to provide articulated expectations across the grades. ETS will provide the resulting documents to the CDE for review prior to preparing a final document for use at standard setting and as part of the collateral materials that may be used to communicate with stakeholders.

Standard Setting Methods

Standard setting activities for the CSA, CAST, CAA for Science, and Alternate ELPAC CBA are described in the following paragraphs.

For CSA and CAST, ETS proposes to use an item-level judgment method, such as the Modified Angoff method or the bookmark method (Karantonis & Sireci, 2006; Lewis, Mitzel, & Green, 1996; Zieky, Perie, & Livingston, 2008; Tannenbaum & Cho, 2014, with a modification that allows more time for training panelists. ETS used the bookmark

method to set standards for the ELPAC PPT and the CAA for ELA and mathematics; the method is considered efficient for panelists when multiple threshold scores are needed and it is appropriate given the test design and psychometric calibration and scaling method.

For CAA for Science and Alternate ELPAC CBA, ETS recommends that a holistic method of standard setting be considered. The nature of the assessments is described previously; three tasks will be developed for each form and will have items ranging in difficulty in order to measure the range of three performance levels (see Achievement-level and Performance-level descriptors detailed earlier in this task). Educators will develop threshold judgments for each task holistically, and as a result of standard setting, information can be provided to score users about the content measured by the tasks and the performance level of students on each task. For each assessment, ETS will provide recommendations on the standard setting method to the CDE as part of their standard setting plans.

For ELPAC CBA, it is possible that data from the field tests and results from the mode comparability study, suggest reviewing the performance levels threshold scores. If this is necessary, ETS will conduct a threshold score review workshop—for both the Summative ELPAC CBA and the Initial ELPAC CBA—in which the panelists will: review the materials, data, and threshold scores from the ELPAC PPT; ETS will consider all available information from the ELPAC CBA; and provide threshold score recommendations for the ELPAC CBA for SBE approval. ETS proposes a design for the study that allows panelists sufficient time to understand all materials and discuss the impact of recommendations on the students taking the ELPAC CBA, as well as other stakeholders.

Panel Composition

The standard setting workshop participants will be recruited to include state-nominated California educators who have at least five years of experience working with students in the grades and content area of the assessment, and who have indicated that they are familiar with the state-approved content standards appropriate to the assessment. The goal in recruiting is to select a group of educators, representative of the geography and demographics in California, within each subject area and grade level. ETS will work with the CDE to select and finalize each standard setting panel. ETS anticipates a four-day face-to-face workshop for the CAST and three-day face-to-face workshops for CSA, CAA for Science, ELPAC CBA, and Alternate ELPAC CBA. Results from the workshop will include documentation of the panel composition. Proposed panel configurations for standard setting workshops for CSA are included in Table 14, for CAST and CAA for Science in Table 15, and for ELPAC CBA and Alternate ELPAC CBA in Table 16.

Table 14. Panel Configuration for CSA Standard Setting Workshops

Grades	Number of Panelists
3–4	15
5–6	15
7–8	15
High school	15
Total	**60**

Table 15. Panel Configuration for CAST and CAA for Science Standard Setting Workshops

Grades	CAST Number of Panelists	CAA for Science Number of Panelists
5	15	15
8	15	15
High school	15	15
Total	**45**	**45**

Table 16. Panel Configuration for Alternate ELPAC CBA Standard Setting Workshops and ELPAC CBA (Summative and Initial) Threshold Scores Review

Grades	Alternate ELPAC CBA Number of Panelists for Standard Setting*	ELPAC CBA Number of Panelists for Threshold Scores Review
K & 1	8-9	8-9
2–3	8-9	8-9
4–5	8-9	8-9
6–8	8-9	8-9
High School	8-9	8-9
Total	**40-45**	**40-45**

* Grade Spans for the Alternate ELPAC CBA will be
recommended to and approved by the SBE in the HLTD.

Standard Setting Methods for CSA, CAST, and Alternate ELPAC CBA

ETS welcomes the opportunity to discuss with the CDE and the TAG the types of standard setting methods most appropriate for each assessment type. Because of the appropriateness of the Bookmark method (e.g., Karantonis, A., & Sireci, S.G. 2006), and its use in the standard setting procedures for the California STAR assessments in recent years (e.g., ETS 2009; ETS 2010; ETS 2011), ETS proposes the Bookmark method for standard setting of the CSA and CAST. However, for CAST, the Angoff method of standard setting (e.g., Cizek, G. J. (Ed.). 2012) should also be considered, as it may allow for more flexibility in the development of threshold score recommendations for the scores that consist of fewer items. ETS also proposes the Bookmark method for standard setting of the Alternate ELPAC CBA assuming a calibrated item pool for the Initial and Summative tasks for Alternate ELPAC CBA will support the Bookmark method. Both the Bookmark method and the modified Angoff method ask panelists to make item-level judgments, and the overall process of pre-workshop assignments for the panelists, test familiarization, training and practice of the method, three rounds of judgments with feedback and discussion between rounds, is described in the following text. To provide the specific process for each method, the Bookmark method is described using CSA; the Angoff method is described using CAST; and holistic method is described using CAA for Science. Use of a different process instead of the Bookmark method would be at no additional cost to the CDE. After consultation with the CDE and the TAG for each assessment, ETS will apply the most appropriate method and procedures selected for each assessment. ETS will use a threshold score review process for ELPAC CBA if it is determined to be necessary.

After discussion with the CDE and the TAG, and agreement on the standard setting methodology, ETS will provide the CDE with the formal standard setting plan for review six weeks prior to the workshop, and will include a draft of the materials to be used in standard setting, and the review of the plan and materials in the overall project schedule, allowing adequate time for review, discussion, and revisions.

Standard Setting Process for CSA and Alternate ELPAC CBA

Prior to the panel meeting, panelists will receive a pre-workshop assignment to familiarize them with the general ALDs and standards associated with the assessment, i.e., California Common Core State Standards en Español (CCSS en Español) for CSA and the English Language Development Standards for students with the most significant cognitive disabilities when they are available. The panelists' assignment will be focused on the subject and grade(s) for which they have been recruited. Once assembled at the workshop, panelists participate in a general session overview and training.

After the panelists complete an evaluation form indicating that they understand the process, they develop a definition of the threshold ALD, which defines the border

between each of the content- and grade-specific ALDs. Using the threshold ALD or borderline student definition, panelists make their first round of independent standard setting judgments. Panelists will complete the bookmark task three times over three rounds. Between rounds, training and evaluation will be provided to ensure that panelists understand the nature, purpose and appropriate use of the data provided. Panelists receive their individual judgments, table-summary and panel summary judgments, as well as external data where appropriate and supported by the CDE. Discussions and feedback between rounds take place both at the table-level and the room-level, allowing panelists ample time and information for reflection. Between the second and third rounds the panelists will discuss impact data—the percentage of students, based on the current administration of this assessment, who would be classified at each performance level, if the panel's cut-score recommendations were to be accepted at that point. Panelists may, but are not required to, make changes to their individual judgments at each round.

The bookmark study can occur after the tests have been administered and test scores are available, Item Response Theory (IRT) analyses are completed, and materials have been prepared for the panel meetings. If the modified Angoff method is preferred, the study can occur after the test scores are available, however no IRT analyses are required.

Modified Angoff Standard Setting Process for CAST

Prior to the panel meeting, panelists will receive a pre-workshop assignment to familiarize them with the general ALDs and standards associated with the assessment (i.e., CA NGSS). The assignment will be focused on the grade for which they have been recruited. Once assembled at the workshop, panelists participate in a general session overview and training.

After the panelists complete an evaluation form indicating that they understand the process, they develop a definition of the threshold ALD, which defines the border between each of the content- and grade-specific ALDs, and is referred to in the standard setting as the borderline student definition. For four performance levels, three borderline student definitions must be developed. Using borderline student definitions, panelists make their first round of independent standard setting judgments, through the following process. They will be asked to review the test items and for each item, provide an estimate of the proportion of borderline students who would answer the item correctly. The judgment task will be to provide three estimates, one for each of the borderline students. Estimated proportions are aggregated across items and judges, resulting in an estimate of a score that each borderline student would be expected to receive on the assessment (i.e., the threshold score). By aggregating estimated proportions (judgments) across all items, the threshold scores for the CAST total score can be obtained; aggregating judgments across items in each science content domain will result in threshold scores for each domain. Panelists will complete the judgment task three times over three rounds. Between rounds, training and evaluation will be provided to confirm that panelists understand the nature, purpose and appropriate use

of the data provided. Panelists receive their individual judgments and panel-summary judgments, as well as student performance data on each item, and external data where appropriate and supported by the CDE. Discussions and feedback between rounds take place both in small groups and the room-level, allowing panelists ample time and information for reflection. Between the second and third rounds the panelists will discuss impact data—the percentage of students, based on the current administration of this assessment, who would be classified at each performance level, if the panel's threshold-score recommendations were to be accepted at that point. Panelists may, but are not required to, make changes to their individual judgments at each round.

The modified Angoff study can occur after the tests have been administered and item data (percent correct) and test scores are available; and materials have been prepared for the panel meetings.

Holistic Standard Setting Method for CAA for Science

ETS proposes a holistic standard setting method for CAA for Science such as the Performance Profile Method (Tannenbaum & Baron, 2010; Zieky, Perie, & Livingston, 2008). This type of method is most appropriate to these performance-based assessment types, and has been successful in working with this population. This method combines the Policy Capturing Method (e.g., Plake & Hambleton, 2001) and the Dominant Profile Method (e.g., Plake, Hambleton, & Jaeger, 1997). ETS has experience with many of the holistic methods of standard setting; the Performance Profile method has been used in standard setting studies for K-12 and English language learner assessments (e.g., Baron and Papageorgiou, 2014; California Department of Education, 2009). ETS will submit a standard setting plan for CAA for Science and welcomes the opportunity to discuss with the CDE and the TAG the standard setting plan.

Standard Setting Process for CAA for Science

Consistent with the process for CAST and the CSA, panelists will receive a pre-workshop assignment to familiarize them with the general ALDs, and the CA NGSS Content Connectors (Connectors), from the California Next Generation Science Standards (CA NGSS) as well as the Focal Knowledge, Skills, and Abilities (FKSAs) and Essential Understandings (EUs). The assignment will be focused on the subject and grade for which they have been recruited. Once assembled at the workshop, panelists participate in a general session overview and training.

As in the bookmark process, panelists define the threshold between each content- and grade-specific ALD and use this borderline or threshold definition to make judgments. After panelists receive training in the method, and indicate they understand the process, they make their first round of judgments. For the CAA for Science, the assessment is comprised of items within three separate tasks. Two forms of the assessment will be included in the standard setting process; a total of six tasks will receive judgments. In the profile approach, panelists consider profiles of responses across the items within each task to make holistic standard setting judgments for each task. Judgments will be made based on consideration of the threshold or borderline student and the range of

scores on each task. The threshold score for three tasks on each form will be summed to provide the total cut scores for two forms. Panelist training will include a discussion of the expectation that tasks are expected to differ in difficulty and that judgments for each task is based on consideration of what students are expected to know and be able to do, based on the borderline student definition, and the demands of the items within a task, holistically. The panel facilitator will emphasize this explanation throughout the standard setting process.

Panelists will make three rounds of judgments with feedback and discussion of each task between rounds. Feedback will include individual judgments, table-summary and panel summary judgments, as well as external data where appropriate and supported by the CDE. Training and evaluation will be provided to ensure that panelists understand the nature, purpose and appropriate use of the data provided. Discussions and feedback between rounds take place both at the table-level and the room-level, allowing panelists ample time and information for reflection. Between the second and third rounds the panelists will discuss impact data—the percentage of students, based on the current administration of this assessment, who would be classified at each performance level, if the panel's cut-score recommendations were to be accepted at that point. Panelists may, but are not required to, make changes to their individual judgments at each round.

Threshold Score Review Process for Initial and Summative ELPAC CBA

ETS conducted the workshops for the ELPAC PPT PLDs and standard setting processes in October 2017 and February 2018, respectively. Plans for the new ELPAC CBA include alignment to the same standards, which assumes that the score meaning, and performance level descriptors should be the same.

ETS will provide to the CDE and members of their TAG with the results of the mode comparability study, data analysis results of the fall 2019 ELPAC CBA field test, and a recommendation with associated risks and advantages related to conducting a threshold score review process. Based on the CDE's decision, ETS is prepared to conduct this process or to consider alternatives (e.g., applying the current ELPAC PPT threshold scores to the ELPAC CBA).

Consistent with CDE's decision above, ETS will provide a plan to the CDE for a threshold score review process for approval. In the proposed process, California educators will review materials and data from the Initial and Summative ELPAC PPT standard setting conducted in 2017–18 to inform judgments about the threshold scores for the ELPAC CBAs. Additional validation studies will be completed for each of the PPT assessments prior to the threshold score review workshop; ETS will discuss with the CDE and the TAG the types of additional data from the ELPAC PPT validation studies that might be included in the review workshop for ELPAC CBA.

Consistent with the processes for other standard setting work described previously, panelists will receive a pre-workshop assignment to familiarize them with the non-secure materials. In recruiting for panelists for the threshold score review process, ETS

recommends that there be overlap with the educators who worked on the PPT standard setting. This will provide the panelists with additional confidence in the verification process. The assignment will explain generally the process for which they will be trained and be focused on the grade-span for which they have been recruited. Once assembled at the workshop, panelists participate in a general session overview and training. Panelists will work in small groups, (see Table 16) for most of the workshop; focusing on the grades or grade-spans for which they have been recruited. Data from the fall 2019 field test will allow us to calibrate the items for the Initial and Summative ELPAC together. Additionally, ETS will review impact data by considering the students' performance as similar to the start of the school year for the Initial ELPAC, and as similar to the end of the previous year for the Summative ELPAC. The threshold score review will be conducted first for the Initial ELPAC CBA and then for the Summative ELPAC CBA. Panelists will consider the meaning of each level based on the Range PLDs defined prior to the ELPAC PPT standard setting workshops, the 2019 ELPAC CBA field test data, as well as the results from the comparability study, and will discuss the reasonableness of the threshold scores for the ELPAC CBA.

The final activity will include three representatives from each panel for a cross-grade articulation, similar to what was done on the last day of the Initial ELPAC PPT standard setting. During articulation, panelists will consider data across the full grade span, for both Initial and Summative ELPAC CBA. The ELPAC CBA threshold score review workshop will be four days.

ETS recognizes that the ELPAC CBA data may indicate the need for new scales to be developed. ETS welcomes the opportunity to discuss with the CDE and their TAG whether this would necessitate two standard setting workshops, for the Initial and Summative ELPAC CBA. For each workshop, 45 panelists would assemble to recommend threshold scores for each grade and grade-span, at the time data and materials are available (see Table 16). The standard setting method ETS would recommend in this scenario is a Bookmark method, or a modified bookmark; ETS would develop a plan based on lessons learned from the two ELPAC PPT standard setting workshops.

Paper-Based Initial ELPAC Preliminary Threshold Score Review

For the Initial ELPAC Paper-Pencil Test, a review of the preliminary threshold scores will be conducted, which will provide information about the extent to which educators agree that students were correctly identified: classified as English Learner (EL) or Initial Fluent English Proficient (IFEP).

- A survey of teachers will be developed; the goal of the survey is to collect judgments from teachers working with students who took the Initial ELPAC.

- The survey questions will be drafted and submitted for CDE review and approval.

- The final survey will be sent to LEA ELPAC Coordinators to distribute to teachers who have worked directly with a range of EL and IFEP students, and are familiar with student performance in the classroom. The participating teachers will be asked to rate, using a Likert-like scale, the extent to which their students are appropriately identified as EL or IFEP.

- For each grade or grade-span, the targeted number of ratings is 150 EL and IFEP students. LEAs will be provided a stipend for teacher judgments, as was done for the paper-based summative ELPAC threshold score validation study.

- The results from teacher judgments will be compared with Initial ELPAC classification into EL or IFEP performance levels. This information will be used to review preliminary threshold scores and provide support for the validity of the Initial ELPAC.

Assessment Score Data in Standard Setting

ETS recognizes the need for careful attention to training and evaluation of panelists' understanding of both appropriate use and limitations of data in the judgment process. ETS proposes to discuss with the CDE and the TAG regarding inclusion of external data as part of the feedback to the panel.

Technical Report

ETS will provide the CDE and the TAG with a complete report of the standard setting process, panelists' recommendations, evaluations, and other relevant data before web posting. The report will be suitable for peer review submission (see *A State's Guide to the U.S. Department of Education's Assessment Peer Review Process* at https://www2.ed.gov/admins/lead/account/saa/assessmentpeerreview.pdf). In addition, the CDE may require an executive summary report, in order to meet time-sensitive deadlines. ETS will provide a brief report, oriented toward the SBE, within one week of the completion of the standard setting workshop. Because there are multiple score users, with differing backgrounds and needs, clear communication of score meaning must be deliberate. ETS will be happy to collaborate with the CDE to create useful score interpretive materials; two short memos or briefs, for specific audiences as designated by the CDE.

Schedule for Standard Setting

ETS understands the need to hold the standard setting workshops as soon as data are available from the operational launch for the CSA, CAST, and CAA for Science, and as soon as data are available from the field test, for ELPAC CBA, and for Alternate ELPAC CBA. For standard setting workshops proposed, there are important milestones. ETS acknowledges the need for clear communication and planning in order to be successful in these tasks.

Logistics

ETS will provide the CDE with recommended locations, which will accommodate each workshop. Once the CDE approves the panel participants and locations, accommodations will include lodging and meals for panelists and meeting space. ETS will arrange for substitute teacher reimbursement and will cover the costs of lodging and meetings, in accordance with the current CDE reimbursement guidelines.

6.4. Test Administration System Familiarization

ETS offers several opportunities for students and test administrators to become familiar with the test delivery system (including TOMS and TDS). ETS also provides multiple training opportunities to support the LEA coordinators for CAASPP and ELPAC, the LEA technology coordinator, and other designated staff as they prepare the infrastructure used for the test administration process.

CAASPP and ELPAC Test Administration Portals

As described in Task 2, ETS will provide access to the test administration components with the broadest range of users in mind. The site itself provides a single source for access to all things CAASPP and ELPAC including access to the TDS, training videos, test administration manuals, and live webcasts, among other things. A user can quickly go to a certain section or test administration tool, and ETS designed the links to be interlaced yet intuitive.

Practice and Training Tests

The ETS Team will provide practice and training tests for the CAASPP summative assessments administered in this contract. ETS also will develop practice and training tests for ELPAC CBA and Alternate ELPAC CBA as mutually agreed upon by ETS and the CDE. ETS will produce the Practice and Training Tests as listed in Table 17. The agreed-upon timeline will include the ETS activities to update practice and training tests as needed to include any new approved accessibility supports or item types.

Training tests include small sets of sample test questions that allow students and test administrators to learn how to interact with the different items types, available accessibility features, and test administration instructions. Training tests are typically not grade-specific nor are they available as full-length tests. Practice tests generally mirror a full-length test and include a range of grade-level content. Like the training tests, practice tests include the available accessibility features and test delivery functionality. ETS creates scoring guides with rubric information for practice tests for use in local scoring.

Table 17. Planned Availability of the Practice and Training Tests, by Assessment[*]

Assessment	Planned Availability of the Training Test	Planned Availability of the Practice Test
Smarter Balanced Summative Assessments for ELA and Mathematics	2018–19 2019–20 2020–21 2021–22	2018–19 2019–20 2020–21 2021–22
CAA for ELA and Mathematics	2018–19 2019–20 2020–21 2021–22	2018–19 2019–20 2020–21 2021–22
CAST	2018–19 2019–20 2020–21 2021–22	2018–19 2019–20 2020–21 2021–22
CAA for Science	2018–19 2019–20 2020–21 2021–22	2019–20 2020–21 2021–22
CSA	2018–19 2019–20 2020–21 2021–22	2018–19 2019–20 2020–21 2021–22
ELPAC CBA	Spring 2020 2020–21 2021–22	Spring 2020 2020–21 2021–22
Alternate ELPAC CBA (pending SBE approval of the HLTD)	Spring 2021 2021–22	Spring 2021 2021–22

* Practice and training tests will be available prior to the operational tests being released to the corresponding assessment.

Approved updates to the practice and training tests will be reviewed annually according to each testing program schedule. To be included in the upcoming test administration year, a decision on any new updates must be approved by the CDE according to the processes outlined in Task 1.9. For the CAA ELA and mathematics assessments, item development plans account for adding new items to each of the practice tests in the 2018–19 contract year. For the Smarter Balanced assessments, ETS will work with Smarter Balanced to obtain access to the latest practice and training test materials.

The practice and training tests will be accessed via a web browser using a guest login or through the secure browser. ETS will provide training materials and resources, such as classroom activities and scoring rubrics, on the CAASPP and ELPAC Portals. The practice and training tests will be available for each grade, or grade band, and content area being tested and will include functionality for all approved universal tools, designated supports, and accommodations.

6.5. Parent-friendly Informational Content for CAAs, CSA, CAST, ELPAC CBA, and Alternate ELPAC CBA (Excluding Smarter Balanced Assessments)

ETS will provide parent/guardian-friendly information about the CAAs, CAST, CSA, ELPAC CBA, and Alternate ELPAC CBA that can be published to the StartSmarter website that is accessible to parents and guardians. CDE-approved content will include practice test items representative of the larger item pool and simple, informative text to help parents/guardians better understand the assessments and familiarize themselves and their children with testing. Materials will be interactive and easily accessible online.

For Smarter Balanced assessments, sample items are available through the Smarter Balanced website. ETS will include a link to the Smarter Balanced website to make it easy for users to locate.

ETS will use the information collected from stakeholders during the feasibility study conducted in the 2017–18 contract year to determine jointly with the CDE what information should be provided about select practice test items.

Procedure for Creating Website Content

ETS assessment specialists, in collaboration with the CDE, will select practice test questions for the CAAs, CAST, CSA, ELPAC CBA, and Alternate ELPAC CBA.

1. ETS, in collaboration with the CDE, will identify the practice test items to include on the website. ETS will submit recommendations to the CDE for a five working-day review.

2. ETS will prepare supporting information for each practice test question selected. The supporting information will focus on informing parents about the different assessments and how to understand their student's results. ETS will submit the draft website content to the CDE for a 10-working-day review. ETS will schedule the submission of the draft website content to accommodate and prioritize the item review activities described in Task 6.1.

3. ETS assessment specialists will incorporate CDE comments from step 2 and will prepare the draft website content for virtual review by a content review group made up of parents/guardians of California students. ETS will conduct focus groups for each assessment and will plan for a 50 percent overlap of individuals

being included in all meetings for consistency purposes. ETS will determine the best method to obtain input from the content review group.

4. ETS will compile input from the content review groups and provide revised draft website content to the CDE within ten working days of the completion of the content review group input period. The revised draft website content will follow the review and approval process described in Task 1.9.

5. ETS will integrate the CDE-approved content into website approved for use by the CDE.

In the event there is a problem securing permission for a passage or stimulus during the practice test item selection process, ETS will work with the CDE to find a solution which may include providing only the citations, rather than the complete text, for copyrighted material along with the associated items, or replacing those practice test questions related to materials for which permissions are not granted.

Once the procedures for developing the website content have been completed, the data will be transferred to Smarter Balanced to be populated on the StartSmarter website.

Communication about the Enhancements to Website Content

ETS will create a communication plan to increase and support parent/guardian understanding of the California assessment system. ETS will deliver the draft communication plan to the CDE as part of the LEA Communication and Training Plan described in Task 2. At the CDE's direction, ETS will coordinate with the CDE Outreach and Technical contractor on the communications about the website content.

6.6. Analysis of Test Results

For the operational administrations of CAST, CAA for ELA and mathematics, CAA for Science, ELPAC CBA, CSA, and Alternate ELPAC CBA, ETS will perform classical item, IRT (where applicable), and test analyses.

Classical item analyses involve computing a set of statistics for every item in each form of the test. Each statistic provides key information about the quality of each item from an empirical perspective. This is also a quality control step to verify answer keys. ETS uses this information for item reviews, test construction, test revisions, technical reports, and other psychometric analyses and documentation. Test analyses provide estimates of reliability, distributions of raw scores, estimated student ability values, as well as item difficulties and item discrimination statistics.

ETS conducts preliminary item analyses using partial population data, especially when there are schedule constraints. Under these circumstances, ETS will obtain approval from the CDE using approved partial data to conduct analyses that might impact the data review meeting or other activities that involve review of test data. However, ETS

will also conduct a final item analysis and test analyses using the full population data and will document these in the annual technical report.

After receiving all student response data, implementing scoring rules, checking the data files and applying agreed-upon valid case criteria rules to the data, the next step will include a classical item analysis. This analysis evaluates item difficulty, item discrimination, and student raw score performance of selected response (SR) items and hand-scored constructed-response (CR) items. These analyses help identify any items that might not have performed as expected.

ETS will conduct and provide the following:

- Item difficulty (p-values)

- Item-total correlation (SR and CR items)

- Proportion of students choosing each response option (SR items)

- Percentage of students omitting an item (SR and CR items)

- Score point distribution (CR items)

- Discrimination Flag (RPoly flag)

- Response distribution (all items)

- Mis-key flag

- Item score distribution

In addition to the classical analyses described previously, ETS will carefully review each newly administered item (i.e., embedded field test items or operational items appearing on a test form for the first time; field test forms for CAA for Science, ELPAC CBA, and Alternate ELPAC CBA) for differential item functioning when sufficient case counts are available. In addition to providing classical item statistics for each field test, ETS will provide IRT parameter estimates for all items (excluding CAA for Science). In addition, ETS will work with the CDE in investigating the feasibility of creating a vertical scale for the CSA with a decision to be made by summer 2018 before the first operational administration.

For the CAA for Science, ETS will use the item statistics to estimate the reliability of the field test forms and use these estimates to advise the CDE concerning the estimated numbers of items that need to be administered to reach various levels of reliability. Following the CAA for Science field test, ETS will deliver a report within a mutually agreeable timetable with the CDE.

For CAST, the CAAs, CSA, Initial and Summative ELPAC, and Initial and Summative Alternate ELPAC CBA, ETS will report overall test reliabilities associated with each

assessment and advise the CDE accordingly if levels need improvement. Also, ETS will continue to examine additional data collected relevant to computer-based testing with innovative item types.

For ELPAC CBA, ETS may need to conduct threshold score reviews, as described in Task 6.3, pending the results from a mode comparability study from a 2018–19 field test and per proposed regulations. If there is a significant shift in comparability that cannot be resolved through equating, the ELPAC CBA reporting scales would need to be reestablished. ETS will collaborate with the CDE to determine a mutually agreeable approach. If a threshold score review is needed, ETS will use the existing Summative and Initial ELPAC PLDs and data from the ELPAC CBA administrations.

The long-term test design for CAST is a multistage adaptive test (MST), which is anticipated to be implemented, pending psychometric analysis results and CDE approval, by the 2020 operational administration. ETS psychometrics and assessment development staff will evaluate the characteristics of the item pool after each operational administration and provide recommendations to improve the pool so that MST remains sustainable and fulfill the CAST blueprint. Similarly for the CAA for ELA and mathematics, ETS will evaluate the item pool after each operational administration to inform item development efforts

Special Psychometric Analyses for ELPAC

ETS will conduct a special mode comparability study for ELPAC between spring 2019 and fall 2019, where a sample of students will be randomly assigned to either a PPT form or a CBA form. This will allow ETS to understand the test mode effect as well as to determine whether the existing ELPAC paper-based scales and calibrated item bank for CBA could be used. If existing scales and the calibrated item bank cannot be used for CBA, then ETS will need to revise the new reporting scales for the initial and summative assessments and will work with the CDE to determine whether to conduct a new standard setting for ELPAC CBA.

As part of the ELPAC CBA pilot, ETS will investigate the speaking mode effect and will make a recommendation for scoring the speaking test to minimize the speaking score mode effect and maintain the standardization of test administration and scoring.

If the CDE commissions an external alignment study of any newly launched ELPAC assessment to be conducted by an independent evaluator, ETS will provide support to the CDE and its contractor as described in Task 1, to meet the U.S. Department of Education's assessment peer review requirements, provided that the support does not require changes to the contracted activities.

Special Psychometric Analyses for CAST and CSA

In effort to support the psychometric integrity of the test designs for CSA and CAST, ETS recommends executing three studies. For the CSA, ETS intends to study overall test structure by conducting a dimensionality analysis. The dimensionality analysis aims

to address whether the test measures one underlying factor (e.g., Spanish) or if there are multiple factors within the Spanish language measure (e.g. Listening, Reading, and Writing). This analysis will assist efforts in determining how data might be best calibrated and what types of student-level scores should be reported. For example, if the results indicate that the CSA data has a multidimensional structure, the reporting of Listening, Reading, and Writing subscores would be supported. It would also be recommended that item calibrations should be conducted within these Spanish language factors. Furthermore, it would be recommended that the reporting of an overall score would be based on computing a composite of the three Spanish language factors. However, if the dimensionality analyses indicated that a unidimensional structure was supported, then only the overall total score should be reported and no separate item calibrations within the Spanish factors would be warranted. For CAST, a subset of dimensionality studies from the field test will be replicated in an effort to confirm the appropriateness of reporting various student-level scores as well as group level scores. In addition, for CAST, ETS proposes to evaluate the feasibility of implementing a content-level screener that aims to select segment B performance tasks based on student performance on segment A. For each of these studies, ETS will work closely with the CDE to finalize analysis designs.

If the CDE commissions an external alignment study of any newly launched CAASPP assessment to be conducted by an independent evaluator, ETS will provide support to the CDE and its contractor as described in Task 1, to meet the U.S. Department of Education's assessment peer review requirements, provided that the support does not require changes to the contracted activities.

6.7. Item Banks

6.7.A. California Item Bank

(Not applicable for the renewal period. ETS will deliver the final California Item Bank in December 2018, after the completion of the 2017–18 online administration of STS RLA.)

6.7.B. Item Bank for the California Assessment System

The items developed for CAASPP assessments include a variety of item types such as technology-enhanced items, graphing, and technology-enhanced simulations. In order to provide the CDE with a data warehouse for the California assessment system (i.e., new CAASPP and ELPAC, including Alternate ELPAC CBA, assessments), ETS will use a combination of ETS proprietary Item Banking Information System (IBIS) and AIR's proprietary Item Tracking System (AIR-ITS) during the development and review of the CAASPP and ELPAC assessments. ETS will also use AIR-ITS to facilitate the item and form review process. ETS does not include activities to provide system development of IBIS or AIR-ITS.

Using IBIS, CDE staff will have direct access to the item bank through a secure web-based interface. User authentication, controlled by ETS-managed credentials, secures access through the interface. To establish the complete security of all data moving across the Internet, ETS implements a 128-bit secure socket layer (SSL) encryption.

Controlled Access. ETS will grant the CDE staff with access to IBIS as External Client-Committee-Outside Reviewers (ECCR). CDE staff will be able to comment on items during the Committee Review or Client Review workflow steps customized for CAASPP and ELPAC. ETS will establish access policies with California and manage the granting of access for appropriate staff.

IBIS will hold searchable, sortable, and printable data (e.g., item cards) and properties, including, but not limited to:

- unique identification number (UIN) for item components (e.g., question, stimulus, graphics, animations, sound files)

- UIN links between all item components

- titles for stimuli (e.g., passage, scenario, scene)

- all and any alignment attributes (e.g., test family, item type, subject, grade, strand, substrand, standard, benchmark, cognitive level, subpractice assessment target, DCI assessment target, phenomenon)

- properties (keys, distractor rationales, item type, stimulus type [e.g., passage genre, scenario vs. simulation]), stimulus graphic indicator (yes/no), passage word count, Lexile, rubrics

- source documentation, copyright permissions information, and related documentation (e.g., contract) for science scenarios, reading passages, graphics, and items, if applicable

- item images (item as it appeared during administration)

- blind/visual impairment review notes

- item development and administration status

- administration history for the life of the item, scenario, or passage for non-Smarter Balanced items

- performance data (e.g., p-value, PBIS correlation, IRT parameters, differential item functioning [DIF])

System Flexibility and Interoperability. The CDE will have the ability to select configurable features of IBIS and AIR-ITS for CAASPP and ELPAC development. This activity will involve meetings to determine the requirements for configuring the item bank

and user interface. ETS will use the QTI standard, including the item-type naming conventions, as the basis for building the XML formats of items with capability for APIP standard tagging. QTI enables routine exports to most third-party online platforms including the AIR online platform. APIP tagging standardizes the process for embedding accessibility features for test accommodations, including braille and language accommodations.

Smarter Balanced Assessments. ETS will import the metadata and scoring information for Smarter Balanced items into IBIS to accomplish the following: (1) access to CR items in the scoring system; (2) scoring of the paper forms; and (3) psychometric analyses. ETS will receive an annual feed of items and metadata from Smarter Balanced in interoperable QTI format.

Item Bank Export. IBIS uses the QTI standard as the basis for building the XML formats for items, data, and metadata. This feature will confirm a smooth transition at the end of the contract period. ETS employs industry standard formats and has routinely handed off data feeds of items, test packets, data, and metadata to numerous partner organizations. As a comprehensive item database, IBIS includes all reading passages, artwork, stems, distractors, form identifiers, item keys, rationales, and scoring rubrics. IBIS may be supplemented by the AIR-ITS during certain phases of the test development process to manage simulations and certain item types. IBIS stores copyright permissions records and can generate a report for the CDE containing copyright permissions and expiration dates using the dynamic reporting functions in IBIS.

6.8. Activities in Support of Future Assessment Development

ETS understands that California law includes provisions for expanding the California assessment system to include assessments in areas such as history/social sciences, technology, and the arts, as well as new end-of-course tests in science, ELA, and mathematics. ETS further understands that these assessments and any expansion of ELPAC would require SBE approval, legislative action, and funding. Therefore, no specific plans or budget for work on any additional assessments has been included in this SOW.

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TASK 7: Test Administration

ETS offers the CDE a comprehensive computer-based California Assessment Delivery System that allows LEAs to manage and administer all assessments included in the California assessment system. The California Assessment Delivery System includes both the Test Operations Management System (TOMS) and AIR's test delivery system. These key components integrate together to produce, deliver, and administer both computer-based and paper-pencil assessments.

Table 18 provides an overview of the test administration distribution plans.

For the 2018–19, 2019–20, 2020–21, and 2021–22 administrations, ETS will administer the following assessments:

- Smarter Balanced Interim Assessments (online only)

- Smarter Balanced Summative Assessments (online, paper for special versions or technical issues)

- CAA for ELA and Mathematics Assessments (online only)

- CAST Assessment (online beginning 2018–19, paper for special versions or technical issues beginning 2019–20)

- CAA for Science 2018–19 Field Test (online only)

- CAA for Science 2019–20 and later operational assessment (online only)

- CSA Assessment (online only)

- Summative ELPAC 2018–19 (paper only)

- Summative ELPAC CBA 2019–20 and later (online only, paper for special versions or technical issues)

- Initial ELPAC 2018–19 and 2019–20 (paper only)

- Initial ELPAC 2020–21 and later (online, paper for special versions or technical issues)

- Summative and Initial Alternate ELPAC CBA Field Test 2020–21 (online only)

- Summative Alternate ELPAC CBA 2021–22 operational assessment (online only)

- Initial Alternate ELPAC CBA 2021–22 operational assessment (online only)

ETS will administer each assessment according to the testing regulations that apply to that assessment.

Table 18. Distribution Plans for the California Assessment System

Assessment	Online	Paper Accommodations
Smarter Balanced ELA and Mathematics	Yes	Braille, Large Print, Regular Print (for students with IEPs and/or 504 Plans who cannot access the online test or for technical issues—see Task 3.1)
California Alternate Assessments for ELA and Mathematics	Yes	None
California Science Test	Yes	Braille, Large Print, Regular Print (for students with IEPs and/or 504 Plans who cannot access the online test or for technical issues—see Task 3.1)
California Alternate Assessments for Science	Yes	None
California Spanish Assessments Reading/Language Arts	Yes	None
Summative ELPAC PPT 2018–19	No	Braille and Large Print
Initial ELPAC PPT 2018–19, 2019–20	No	Braille and Large Print
Summative ELPAC CBA 2019–20, 2020–21, 2021–22	Yes	Braille, Large Print, Regular Print (for students with IEPs and/or 504 Plans who cannot access the online test or for technical issues—see Task 3.1)

Assessment	Online	Paper Accommodations
Initial ELPAC CBA 2020–21, 2021–22	Yes	Braille, Large Print, Regular Print (for students with IEPs and/or 504 Plans who cannot access the online test or for technical issues—see Task 3.1)
Summative Alternate ELPAC CBA 2020–21, 2021–22 (pending SBE approval of the HLTD)	Yes	None
Initial Alternate ELPAC CBA 2020–21, 2021–22 (pending SBE approval of the HLTD)	Yes	None

For planning purposes, ETS used the information from Table 19 provided by the CDE.

Table 19. Estimated California Test Takers

Assessments in State Law	Subject	Grade	School Year	Estimated Test Takers
Smarter Balanced Interim	ELA and mathematics	K–12	2018–19 2019–20 2020–21 2021–22	6,400,000 6,400,000 6,400,000 6,400,000
Smarter Balanced Summative	ELA and mathematics	3–8, 11	2018–19 2019–20 2020–21 2021–22	3,300,000 3,300,000 3,300,000 3,300,000
CAA for ELA & Mathematics	ELA and mathematics	3–8, 11	2018–19 2019–20 2020–21 2021–22	39,000 39,000 39,000 39,000
CAST	Science	5, 8, and high school	2018–19 2019–20 2020–21 2021–22	1,472,000 1,472,000 1,472,000 1,472,000
CAA for Science	Science	5, 8, and high school	2018–19 2019–20 2020–21 2021–22	16,500 16,500 16,500 16,500
CSA	Reading/ language arts	3–8 and high school	2018–19 2019–20 2020–21 2021–22	22,500 22,500 22,500 22,500
Summative ELPAC	English Language Proficiency	K–12	2018–19* 2019–20 2020–21 2021–22	1,265,000 1,265,000 1,265,000 1,265,000
Initial ELPAC	English Language Proficiency	K–12	2018–19* 2019–20* 2020–21 2021–22	287,000 287,000 287,000 287,000
Summative Alternate ELPAC CBA	English language proficiency	K–12	2020–21 2021–22	16,500 16,500
Initial Alternate ELPAC CBA	English language proficiency	K–12	2020–21 2021–22	16,500 16,500

*Full paper administration

7.1. CAASPP and ELPAC Test Administration Requirements

ETS will create manuals, user guides, and other supporting materials so that the LEAs have the information they need to effectively and efficiently administer the California assessment system.

7.1.A. Manuals and Context-Sensitive Help

During the course of the previous CAASPP administrations and as part of data-driven improvement activities, ETS has noted the desire of LEAs to receive test administration information in a consistent and timely manner and relevant to the task that they are performing at the time. ETS will continue to produce high-quality manuals that will give California the exact information needed in ways that are accurate and efficient. In addition, ETS will implement context-sensitive online help to provide the most appropriate test administration instructions to the user. Contextual help offers more effective guidance by providing specific information at the time the user is looking for help. It contains small pieces of information the user needs to understand at that point; it is not meant to be read as a whole, as opposed to user manuals. It is important to note that contextual help does not make user manuals obsolete. For training purposes, a detailed step-by-step user guide with screenshots and explanations will help the user gain a deeper understanding of the topic.

Beginning with the 2018–19 administration, the ELPAC Test Administration Manual (TAM) will be designed to follow the CAASPP design for online manuals including the implementation of the contextual help model. As with the other CAASPP manuals, the goal of implementing this approach is to give LEAs timely and targeted information when it's needed. As ETS develops manuals targeted for the computer-based ELPAC assessments, ETS will develop the future manuals to be consistent with those produced for the other California programs. See Table 20 for more detail on the provided manuals. ETS will consider the year-long nature of the ELPAC assessments, specifically Initial ELPAC, and will ensure that timely information is available to the LEAs.

Implementing Context-sensitive Help. Beginning with the 2018–19 administration, ETS will develop and implement a user-friendly, visually appealing interface to replace the current document help pages in TOMS. The context-sensitive help will use the existing identity management system in TOMS to configure role-based permissions to secure information (e.g., test administration instructions that include test questions). The context-sensitive help will directly use the information provided in the manuals and other test administration materials and will be presented to the user in the smallest possible chunk of information. In addition, ETS will include streaming videos when available. For example, when a user is selecting a student's test settings, the context-sensitive help will provide specific information about the test setting and, when available, provide a video about that test setting. The context-sensitive help will also provide direct access to the manuals described in the following sections. ETS will confirm that the look and feel

of the context-sensitive help and http://www.caaspp.org/ and https://www.elpac.org/ are consistent. ETS will obtain CDE approval of the text prior to its release to the LEAs.

General Specifications for Developing Manuals. ETS will use the previous administration's manuals as the starting point for the current administration. Prior to the development and production of a manual, ETS will provide the CDE with a list of recommended revisions including those from the data-driven improvement process. When appropriate, ETS will also make recommendations to re-conceptualize existing manuals for increased usability, create new or additional manuals, or even retire existing manuals.

ETS will conduct an intake meeting with the CDE in the spring annually prior to the start of the test administration year. This meeting will include discussion of all manuals and context-sensitive help and proposed timeframes of their releases. ETS will incorporate the guidelines from the intake meeting into the manual release plan and will deliver the manual release plan within ten business days of the intake meeting for CDE's approval with sufficient time for the thorough review and approval of the manuals prior to posting or publishing. In addition, ETS will implement a process by which an ETS editor will conduct inter-manual consistency checks so that there is consistent tone, language, and directions between the manuals. The production schedule for each manual will follow the CDE approval requirements.

Posting Manuals to CAASPP and ELPAC Website. ETS will convert all manuals to PDF and/or HTML files. The PDFs will include the appropriate accessibility tagging that meets or exceeds the CDE web requirements. ETS will post only non-secure materials or materials edited to remove secure sections to http://www.caaspp.org/ and http://www.elpac.org.

Based on feedback from the LEA Advisory Group and from focus groups throughout the year, ETS will propose recommendations to the CDE for ways to make information about the test administration process more accessible.

ETS will post all final approved manuals to http://www.caaspp.org/ or http://www.elpac.org/ based on the timeline agreed upon by the CDE and ETS for the given administration. ETS anticipates that there may be changes or updates to policy or administration procedures that may impact the manuals. During the initial planning phase of each manual, ETS will propose processes and contingencies. In the event that a policy or administrative change is required after ETS publishes a manual, ETS will work with the CDE to determine which contingencies ETS should consider and what impact the contingencies have to LEA activities and the overall program schedule, if any.

ETS will deliver all manuals as electronic files through http://www.caaspp.org/ and http://www.elpac.org/ or, for secure manuals, through TOMS.

Table 20. California Manuals

Manual	Format	Assessments included
Test Operations Management System (TOMS) Pre-Administration Guide for CAASPP Testing	Online only	Covers all CAASPP assessments for 2018-19
Test Operations Management System (TOMS) Pre-Administration Guide for ELPAC Testing	Online only	Covers all ELPAC assessments for 2018-19
Test Operations Management System (TOMS) Pre-Administration Guide for the California assessment system	Online only	Covers all assessments beginning 2019–20
Accessibility Guide for the California assessment system	Online only	Covers all assessments
Security Incidents and Appeals Procedure Guide	Online only	Covers all CAASPP assessments only for 2018–19 and all assessments, include ELPAC, beginning 2019–20
Technical Specifications and Configuration Guide for the California assessment system	Online only	Covers all assessments
Guide for the California Educator Reporting System (formerly "Online Reporting System Guide")	Online only	Covers all assessments (note: the Online Reporting System Guide for CAASPP will continue to be available until the full transition to the California Educator Reporting System)

Manual	Format	Assessments included
Completion Status User Guide and Roster Management for the California Assessment System	Online only	Covers all assessments
Test Administration Manual – CAASPP Online Assessments	Online only	Covers all CAASPP assessments
Smarter Balanced and CAST PPT Test Administration Manual (TAM) ELA/Math	PPT	Covers Smarter Balanced Summative ELA and Mathematics paper and, beginning 2019–20, CAST paper
Test Administration Planning Guides – CAA for Science	Online only	CAA for Science
CAA Practice and Training Tests Directions for Administration (DFA) for the CAAs	Online only	All CAAs
Directions for Administration	Online only— Secure materials	All CAAs
Interim Assessment User Guide	Online only	Smarter Balanced Interim Assessments
CAASPP Post-Test Guide	Online only	Covers all CAASPP assessments
Summative ELPAC Test Administration Manual (TAM)	Online only	Summative ELPAC PPT
Initial ELPAC Test Administration Manual (TAM)	Online only	Initial ELPAC PPT

Manual	Format	Assessments included
Summative ELPAC Test Examiner's Manual (EM)	Paper 2018–19 Online only 2019–20, 2020–21, 2021–22	Summative ELPAC
Initial ELPAC Examiner's Manual (EM)	Paper 2018–19, 2019–20 Online only 2020–21, 2021–22	Initial ELPAC Assessment
ELPAC Post-Test Guide	Online only	Covers all ELPAC assessments
Practice Test and Training Test Directions for Administration (DFA) for Alternate ELPAC CBA	Online only	All Alternate ELPAC CBA
Directions for Administration—Initial Alternate ELPAC CBA	Online only—Secure materials	Initial Alternate ELPAC CBA
Directions for Administration—Summative Alternate ELPAC CBA	Online only—Secure materials	Summative Alternate ELPAC CBA

Test Administration Manual (TAM)

The Online TAM will include instructions for all available online assessments including the Smarter Balanced Summative Assessments, CAAs for ELA, mathematics, and science, CAST, and CSA. ETS will make sure that California-specific revisions still adhere to the Smarter Balanced test administration procedures and policies where appropriate. ETS will develop a separate Online TAM for the CAA for Science beginning with the 2019–20 administration and through the 2021–22 administrations. The 2018–19 Summative ELPAC TAM will continue to provide information on the administration of the paper-based assessment. A separate TAM for the paper-based Initial ELPAC has

been produced and will be used for both 2018–19 and 2019–20 administrations. Beginning with the 2019–20 administration of the ELPAC, the TAM will be updated to reflect instructions for the delivery of the online Summative ELPAC. The TAM for the online Initial ELPAC will be developed in time for the 2020–21 online Initial ELPAC.

Upon the CDE and SBE's approval of a High Level Test Design (HLTD) for Alternate ELPAC CBA, ETS will recommend a strategy for providing administration guidelines to LEAs. This could include high-level explanations in the CAASPP and general ELPAC TAMs, with reference to materials that are specific to Alternate ELPAC CBA. For planning purposes, ETS assumes the Alternate ELPAC CBA will require test-specific Directions for Administration (DFA) similar to the CAAs.

ETS produces documentation that shows procedures for using TOMS, the California Assessment Delivery System component that allows authorized users to configure testing for students, order materials, submit test setting files, and complete other tasks. ETS will develop and release this documentation as a single manual covering all system functionalities. ETS will release the guide annually on or before the date the second Tuesday of January, when the summative assessments will be available in the TDS, and will update the guide throughout the administration year as additional functionality and pre-administration activities become available. The specific date of release will be included in the Manual Release Plan.

Separate TAMs will cover the existing Smarter Balanced paper-pencil assessments. These TAMs will be coordinated and consolidated whenever possible to confirm ease-of-use in the field. The manuals' interior font size will be 11 points or larger and will be printed with black ink.

In addition to posting the final PDF of each TAM to http://www.caaspp.org/ and http://www.elpac.org/ each year, ETS will release sections of each TAM onto the web portal as they are approved. ETS will submit a timeline for CDE approval that includes the planned release schedule for each section. The proposed TAM release schedule will prioritize the needs of the LEAs to prepare for testing. ETS will confirm that the final PDF version of the appropriate TAM is available for training sessions. The TAM will be posted to http://www.caaspp.org and http://www.elpac.org/ as an electronic PDF.

TOMS Pre-Administration Guides

With the CDE's approval, ETS replaced the LEA Test Coordinator Manual and the CAASPP Test Site Coordinator Manual with the Test Operations Management System (TOMS) Pre-Administration Guide for CAASPP Testing and additional topic-specific guides and manuals. For the ELPAC program, LEAs have access to the TAMs and EMs for both the Summative and Initial ELPAC.

Topic-Specific Guides and Manuals

The CDE and ETS will develop topic-specific guides and manuals to assist LEA and school staff with preparations and administration of the California Assessment System. Topic-specific manuals may include, but are not limited to, the:

- Interim Assessment User Guide;

- Completion Status User Guide and Roster Management for CAASPP Testing;

- Accessibility Guide for CAASPP Testing;

- CAASPP Security Incidents and Appeals Procedure Guide;

- ELPAC Accessibility Guidelines.

Directions for Administration (DFA) for CAAs

To complete the set of role-specific coordination and administration manuals, ETS will develop Directions for Administration (DFAs) for the CAAs (all years being administered). In compliance with the CDE requirements, these DFAs will include:

- an overview of the California Assessment System, and the various test management, registration, and delivery systems

- LEA coordinator responsibilities

- LEA responsibility and activity checklist

- test site coordinator responsibility and activity checklist

- test examiner responsibility and activity checklist

- appropriate processes for handling accessibility and accommodations for computer-based tests

- appropriate measures for protecting test security and confidentiality at the LEA level

- estimated test duration charts for planning purposes, and suggestions for LEA-level test scheduling

- appropriate processes for including special populations of students in testing

- important dates leading up to, during, and after the testing window(s)

Pending the CDE and SBE's approval of an HLTD for Alternate ELPAC CBA, ETS assumes that DFAs similar in purpose and format to the CAA DFAs will be required for the new Initial and Summative Alternate ELPAC CBA.

ELPAC Examiner's Manuals

The ELPAC Examiner's Manuals provide detailed information on the administration of the Summative and Initial ELPAC. These manuals include rubrics and directions for the administration of all domains. The Examiner's Manual for the Summative and Initial ELPAC 2018–19 and 2019–20 administrations will be paper manuals. The ELPAC Examiner's Manual will transition to an online format starting in 2020–21.

For the 2018–19 and 2019–20 administrations, ETS will develop and print Examiner's Manuals unique to each of the grade/grade spans. ETS will distribute these Examiner's Manuals, which will contain secure items, at the same time test materials are distributed. ETS will provide the Examiner's Manuals at a ratio of 1 per 15 test books for lower grade bands and 1 per 25 test books for higher grade bands, per school pre-print order. In addition to the standard Examiner's Manuals, ETS will produce an Examiner's Manual for use with large print and braille test materials.

In order to confirm an accurate administration at the LEAs, ETS has established a three-way check where the answer book, test book, and Examiner's Manuals are reviewed together to establish consistency in language and content.

Technical Specifications, Secure Browser Guide, and Configuration Guide for CAASPP and ELPAC Testing

ETS will develop a manual for use by LEA- and site-level technology coordinators, a crucial role now that California administers a majority of tests online. This guide is a compilation of the Secure Browser Installation Manual, the Technical Specifications for Online Testing Manual, and the System Requirements Manual from previous administrations. The guide will also include technical information specific to the ELPAC Listening and Speaking domains for both the PPT as well as the CBA.

CAASPP and ELPAC Post-Test Guides

ETS will develop separate Post-Test Guides each year for CAASPP and ELPAC that will provide a single reference document for all reporting-related information, for all users. The manuals will provide an overview of the assessments, a description and guides to both online reporting tools and paper reports, and guidelines for interpreting reports. Also, ETS will include clear standards for interpreting the intended uses of the test scores. ETS will develop these standards as part of the psychometric review of the test items and forms. ETS will clearly delimit the addressed population and describe the constructs that the assessments should measure. The goal of these manuals will be to guide all CAASPP and/or ELPAC reporting stakeholders in understanding the scores provided, what they represent, and how they can use them to improve curricular programs in the schools.

ETS will post the Post-Test Guides to http://www.caaspp.org/ or http://www.elpac.org/ by at least ten business days prior to the first Post-Test Workshops.

7.2. Paper-Pencil Administrations

ETS will offer an efficient and secure process for providing a paper-pencil assessment for students who require this mode of testing. ETS will manage and provide the paper-delivered tests from ETS's offices.

ETS will provide the CDE with final documents for the CDE's review and approval following the certification process described in Task 1.9.

With the CDE's input, ETS will develop a detailed project plan to track the completion of the sequence of tasks and will incorporate the detailed project plan into the master project plan. ETS will put each document through the same rigorous process of review, proofreading, accuracy checking, CDE approval, document tracking and version control, and quality inspection that are used with all secure test materials.

7.2.A Paper Smarter Balanced Summative Assessments, CAST, and ELPAC CBA for IEP and/or 504 Plan Requirements or Technical Issues

Through the terms of the contract, ETS will continue to offer paper versions of the Smarter Balanced Summative Assessments to students with IEP and/or 504 Plans who require the use of paper tests or for those individual students by repeatedly experience difficulty accessing the test due to technical issues that cannot be resolved within two weeks by the CalTAC and/or technical support teams. Beginning in the 2019–20 administration, ETS will offer the CAST and Summative ELPAC paper tests for the special accommodations and technical issues similar to Smarter Balanced and described further in Task 3.1. ETS will offer the Initial ELPAC paper tests for special accommodations and technical issues beginning with the 2020–21 administration.

7.2.A.1. Paper Test Booklets and Answer Documents

ETS will develop and print secure non-scannable test booklets and non-scannable answer documents for the Smarter Balanced, CAST, and Initial and Summative ELPAC paper-pencil tests. Paper test booklets and answer documents will only be used in those extremely rare cases, as stated in section 7.2.A. ETS assumes that Smarter Balanced will provide print-ready PDFs that may be used for the CAASPP administration. The print quantities will be based on the test books on orders that are approved by the CDE and provided by LEAs through TOMS by December 1st annually.

The printed test booklets will contain the following information on their covers as approved by the CDE:

- form identification

- content area

- security warning

- copyright information on the inside front cover

- CDE logo and CAASPP logo on the front cover

7.2.A.2. Special Versions (Braille and Large-Print)

For the paper Smarter Balanced braille test, ETS will provide braille covers to the American Printing House for the Blind (APH). APH, who is the Smarter Balanced approved braille vendor, will produce and print quantities of the required braille test books as described in Task 5.1.B. For the paper CAST and ELPAC (Initial and Summative) braille tests, ETS will produce the braille materials. Materials for all braille tests will include a page for transcriber's notes and a special symbols page, as well as a special Instructions for Use document for administering the braille tests. ETS will provide detailed instructions and examiner directions to support the test for the braille versions. They will reflect any special instructions for test administration specific to the braille version of the assessment.

ETS will print large print test books for the Smarter Balanced, CAST, and ELPAC (Initial and Summative) assessments. ETS will base these quantities of the Smarter Balanced, CAST, and ELPAC (Initial and Summative) large print test books on orders provided by LEAs through TOMS by December 1st annually.

ETS will provide the large print booklets—in black ink—and related materials for each test administration. ETS will produce these booklets by submitting the document copy to the printer on electronic media. Before producing the camera copy, ETS will electronically enlarge the type size. It is important to do this, rather than enlarging the copy via a photocopier, to yield documents with sharp and distinct images that are vital to visually impaired students.

ETS will present pages in portrait format and spiral bind the booklets so that the pages will lie flat when fully opened. For the modification of graphics for the large print booklets, ETS will remove any background shading or screens during the composition process. Such shading or screens could hinder a student's ability to interpret and respond to the item. ETS proposes reproducing any graphics that the developer purposely drew to scale at the same size and will only modify items from the original size that are solely represented by color or contrast.

The directions for administration specific to the large print edition will be similar to those used for the regular print, operational version of the test.

Students will respond directly in the special version test booklets or response booklets, and LEAs will return the test booklets to ETS for processing and scoring.

Procedures for Producing Large-Print Versions of the Smarter Balanced, CAST, and ELPAC (Initial and Summative) Tests

7.2.A.3. Paper-Pencil Test Administration

ETS will continue to support the Smarter Balanced, CAST, and ELPAC (Initial and Summative) paper-pencil test administrations to students with IEP and/or 504 plans or

for those individual students who repeatedly experience difficulty accessing the test due to technical issues that cannot be resolved within two weeks by the CalTAC and/or technical support/service teams. These versions will also be provided in the case of emergency technical issues.

Printing and Packaging

ETS will print and package assessment materials according to the requirements of the RFS. The shrink-wrap, overage, and packaging specifications will support the goal of efficient handling by the CAASPP test site coordinators, also allowing ETS to effectively bundle the necessary quantities of test materials.

ETS will ship all paper-pencil test materials for the Smarter Balanced, CAST, and ELPAC (Initial and Summative) tests and will include return instructions and packaging material. Secure materials will have affixed barcodes.

ETS will use a state-of-the-art Packaging and Distribution system, which uses barcode-identified packaging components. Barcodes will identify item type, boxes, orders, pallets, and shipments.

Each package will have a tracking number associated with it. ETS will load this order and shipment tracking information into TOMS, where LEA CAASPP or ELPAC coordinators placed their orders. Since TOMS contains email addresses tied to each order's school and LEA hierarchy, the system-generated emails will go to LEA CAASPP or ELPAC coordinators upon shipment of their order. Information on their order is available for LEA personnel to view and track in the system.

All materials for the test administration will arrive in schools no earlier than ten business days and no later than five business days prior to the start of testing. ETS will use closed-loop tracking to make sure that ETS sends the correct materials ordered, and that the school or LEA receives and accounts for those materials.

Local Data Entry of the Student Responses. LEAs will be responsible for having their test administrator or scribe will enter the student responses for all paper-pencil tests administered for special accommodations or due technical issues. The test administrator or scribe will enter directly into the test delivery system (TDS) using a data entry interface (DEI).

Collection of Secure Test Materials

For any test materials collected by ETS, LEAs must return secure test materials within five working days after the last day for each test administration period. ETS project management will closely monitor the return of materials and will notify the Help Desk, CalTAC, of any LEAs that have not returned their materials. CalTAC will contact the LEA CAASPP or ELPAC coordinators and work with them to facilitate the return of the test materials. ETS will work onsite with LEAs, collaborating with County Offices of Education, to verify the return of materials in a timely manner.

In the packaging process, ETS will include return kits for the secure test materials for use by the LEA CAASPP or ELPAC coordinators. The label will also contain bar-coded information identifying the school and LEA. When test site coordinators pack their materials for return to the LEA, they are required to apply the appropriate labels and number the cartons (e.g., 1 of 2, 2 of 2). Upon receipt of the materials at the LEA, the LEA CAASPP or ELPAC coordinator is required to complete the "total shipment from this LEA" information on the label.

Notifying LEAs of Discrepancies in the Quantities of Secure Materials. ETS will send reports detailing secure materials received back from the LEAs or schools to CalTAC, who will follow up with LEAs. ETS will provide the CDE with an electronic file showing the final resolutions of discrepancies no later than the agreed date of each year. The format of the file will be similar to the file format used in the previous administration.

Procedures for the Secure Destruction of Secure Materials. After secure materials, including test booklets and examiner's manuals, are processed, ETS will return them to their original boxes for storage and palletize and place them in ETS's secure warehouse facilities. Once all resolution is complete, ETS will request approval from the CDE to securely destroy the materials. ETS will request approval from the CDE on October 31st annually following the administration to securely destroy test materials.

The process for ordering test materials should follow the standard ordering process. Response documents will be sent back to ETS for response transcription, and test books will be returned following the current process.

7.2.B. 2018–19 Summative ELPAC Paper-Pencil Test

The 2018–19 Summative ELPAC will be administered as a paper-pencil test. Table 21 outlines the PPT materials by grade.

Table 21. 2018–19 Summative ELPAC Paper-Pencil Test Materials, by Grade

Test Material Description	K	Grade 1	Grade 2	Grade 3–5	Grade 6–8	Grade 9–10	Grade 11–12
Summative Assessment—Operational Form	1	1	1	1	1	1	1
Summative Assessment—Breach Form*	0	0	0	0	0	0	0
Summative Assessment—Large Print Form	1	1	1	1	1	1	1

* The Summative ELPAC breach form was developed as part of the previous ELPAC contract.

ETS will produce the Summative ELPAC test books to include all domains for each grade span. The production costs included in this task relate to all materials required for the 2018–19 administration year. ETS will produce the following test books/answer books:

- Kindergarten Consumable Answer Book

- Grade 1 Consumable Answer Book

- Grade 2 Consumable Answer Book

- Grades 3–5 Reusable Test Book

- Grades 6–8 Reusable Test Book

- Grades 9–10 Reusable Test Book

- Grades 11–12 Reusable Test Book

- Grades 3–12 Consumable Answer Books

These answer books will allow ETS to collect student identification and demographic information, and they will contain space for the placement of a student scannable, pre-printed pre-ID label.

ETS will provide test books that contain the following information on the cover:

1. form identification

2. content area

3. administration date

4. ELPAC assessment

5. copyright information, located on the inside front cover

ETS will produce the 2018–19 Summative ELPAC PPT scannable answer documents based on the previous year's answer documents and will include the required student demographic and test administration fields.

ETS will print Summative ELPAC consumable test books (Grades K–1 and Grade 2) and answer documents (Grades 3–5, Grades 6–8, Grades 9–10, and Grades 11–12) in distinctly different colors so that LEA ELPAC test coordinators can easily and correctly identify each span and assessment. The consumable test books and answer documents will have unique covers for each grade span and each test form. The separate answer document colors will coordinate with the color of the reusable test

books so that LEA ELPAC coordinators use the right answer document with the appropriate test book.

ETS will produce all consumable test books and answer documents on durable paper that is heavy enough to provide that printing is not visible on the opposite side of the page and will not affect scanning of the consumable test books. ETS will print all non-scannable test books on 50-pound paper.

In cooperation with the CDE and the LEAs, the ETS will determine the quantities of all materials to produce, print, and distribute in support of the annual assessments of the Summative ELPAC PPT administration.

ETS has established a print production process, which requires all ETS vendors to perform a series of quality checks at each stage of the manufacturing process: Pre-press, Press, Bindery, and Packaging/Shipping. This quality control process requires the vendor to fully complete its own Quality Control Check List to verify that the vendor adheres to quality procedures.

The ETS packaging/shipping quality check is to verify the specific packaging requirements as specified by each document type. Specifically, the packaging requirements for confidential materials are different from non-confidential materials, and this check helps to enforce adherence to those processes. The printing vendor will pack printed Summative ELPAC test books, special versions, and ancillary materials and ship them via the ETS approved secure and traceable shipping vendor.

ETS will also produce scripts supporting read-aloud delivery of the Listening section for those schools that do not use audio playback equipment or for schools that require the scripts for students whose IEP/504 require a listening script.

The section-length audio files will contain audio needed to deliver the Listening domain of each ELPAC form and version developed under the previous ELPAC contract. Delivery of the Listening domain will be paced by the recorded audio file.

A total of twelve audio files will be available for the 2018–19 Summative ELPAC administration:

- Four files are for the administration of Listening operational items;

- Four for operational Speaking—Summarize an Academic Presentation (SAP) items; and

- Four for the special test versions of the Summative ELPAC PPT.

ETS will create one large print test form in 20-point Arial font for each of the seven grade spans. ETS will produce braille test forms, which will contain operational items only. These braille test forms are a reuse of the developed 2017–18 braille form. ETS

will create the test forms in uncontracted braille for Grades K–2 and in contracted braille for Grades 3–12.

- ETS will pre-equate operational test forms using banked on-scale item parameter estimates when appropriate.

- For each test form, ETS will use the test characteristic curves (TCCs) to create scoring tables relating each student raw score to a corresponding ELPAC reported scale score. A comparison of TCCs and scoring tables for new forms to previously administered forms will help us evaluate form comparability and scale stability.

- Special test versions (e.g., braille and large print) will be variations on test forms in use. The special test versions will be on the same scale as the forms for general population.

Table 22 summarizes the expected testing volumes for the 2018–19 Summative ELPAC operational administration.

**Table 22. Estimated Testing Volume by Grade—
2018–19 Summative ELPAC PPT**

Grade	Summative ELPAC PPT
K	170,000
1	150,000
2	150,000
3–5	385,000
6–8	215,000
9–10	110,000
11–12	85,000
Total	**1,265,000**

Material Orders

ETS will work with the CDE to configure TOMS to generate orders for materials based on the CALPADS enrollment data.

The CALPADS enrollment file will be used to create an initial order counts for each school. ETS uses individual student data to determine totals for EL students per grade and school based on student English Language Acquisition Status and Primary Language Code. LEA staff must login to TOMS and either accept this estimate or

modify it for regular and accommodated tests. There will be two rounds for enrollment-based orders, named Round 1 and Round 2. Each round will use the most recent student enrollment information in TOMS that has been uploaded from CALPADS. The Round 2 window will give LEAs who did not place their primary order in Round 1 an opportunity to place their primary order.

LEAs should confirm or modify their material orders, either through the Round 1 or Round 2 delivery option, as this data will be the basis for the shipments of materials to the LEAs. LEAs are required to confirm that the coordinator name and shipping address are populated in order to avoid a discrepancy with CALPADS.

The ETS algorithm and Bill of Materials (BOM) will be applied as part of ETS fulfillment steps to add an overage (i.e., five percent) to the count of regular tests, in addition to determining the appropriate ancillary test materials that must be included in the initial shipment to LEAs. Order details and the BOM will be available in TOMS after order processing has been completed.

Supplemental orders can be placed by LEAs by either calling the CalTAC Customer Support Representative (CSR) who will have access to screens in TOMS that support this ordering process, or by placing the order online themselves through TOMS. This applies to both standard and non-standard test materials.

LEAs can determine whether they wish to use Pre-ID labels for students testing in the district. The LEAs will review the student enrollment count and, when satisfied with the quality of the Pre-ID data, will approve/submit an order for the Pre-ID labels. An LEA can submit their order anytime between the Round 1 material order date and Round 2 Pre-ID label order date. The order for the labels will be processed and released for printing and delivery to LEAs. Those that order in the Round 1 can place a second order in Round 2, which will only contain new students.

ETS will closely monitor the return of materials and notify the CDE of any LEAs that have not returned their materials. ETS will contact the LEA coordinators and work with them to facilitate the return of the test materials.

The TOMS application will serve as the primary conduit for LEA ELPAC Coordinators of the ELPAC assessment. Administrators and teachers can upload files, retrieve reports, and use other functions. TOMS will use CALPADS data for the LEA/school hierarchy and for enrollment data. The CALPADS enrollment data will be used by TOMS to determine testing eligibilities.

Each eligible student will receive a paper-pencil test registration in TOMS. Student English Language Acquisition Status (ELAS) and Primary Language Code demographic fields received from CALPADS will be used to determine student eligibility. Test registration counts will be presented at the time of the material order is placed. LEAs

can edit student enrollment counts to either up or down test materials within certain threshold without receiving a warning.

Materials Returns

LEAs will be responsible for returning their secure, scannable Answer Books by the dates specified in the ELPAC TAM in order to ensure the timely processing, scoring, and reporting of the student test results. Scannable Answer Books returned to ETS after the specified dates will not be processed by ETS as part of the normal process. As an option and at the LEA's expense, LEAs will may request that ETS process, score, and report the late scannable Answer Books. Test results from late Answer Documents will not be included in the end-of-year data files to the CDE or LEAs and will be provided by ETS directly to the LEA as a separate data file.

Used test materials will be securely destroyed either on–site or returned to ETS for destruction at the end of the testing window. ETS will develop a process that gives LEAs the opportunity to securely destroy test materials on site and provide ETS with certification that the destruction was completed by an approved company. LEAs will also be able to return the secure test materials to ETS for destruction. ETS will track all secure materials as they are returned to ETS, destroyed on site, or missing. ETS shall provide the CDE with a missing materials report that documents all the missing materials within five working days of a request.

The following is a list of materials which LEAs must return:

- Used, secure, scannable Answer Books for K–12

- Used, regular Answer Books from the large-print test administration

- Used and unused braille Answer Books, Test Books, and braille Examiner's Manuals

The following is a list of materials which LEAs must securely destroy or return to ETS for destruction at the end of the testing window:

- Used Test Books for grades 3–12

- Unused Test Books for grades 3–12

- Unused Answer Books for K–12

- Unused Test Book/Answer Books for grade two

- Large-print Summative ELPAC Examiner's Manuals, large-print Test Books and Answer Books, regular Test Books received in the large-print package

- Summative ELPAC Examiner's Manuals

- Student rosters

Pre–ID Label Charges

ETS will bill LEAs for any Pre-ID labels ordered. There will be a two-tiered pricing structure as follows: 38 cents per label for orders in Round 1, and 44 cents for labels ordered in a Round 2.

Excessive Orders

In order to help identify districts that may be ordering excessive test materials, TOMS will compare the order against the LEA's current CALPADS enrollments. If the difference for any order is 10 percent greater than the CALPADS enrollments, then the system will display a warning message indicating that the order quantity may be excessive. Demographics beyond the LEAs' control will drive ELPAC needs, and the system will not prevent LEAs from placing such orders; however, it will provide LEAs with the opportunity to review and make corrections if necessary. ETS will review the Round 1 and 2 orders for each LEA with excessive counts warnings and will provide this report to the CDE one week before the end of the window and one week after the window closes.

The detection algorithm within TOMS will take into account exceptional conditions so that it does not display the warning message inappropriately. For example, if an LEA did not test the previous year for a given administration, the system will not flag the order as potentially excessive. Additionally, the system will alert ELPAC coordinators any time a special version test order exceeds a pre-established quantity.

At the end of the administration, ETS will submit invoices to LEAs whose annual answer books ordered exceeds the number of tests administered by a percent consistent with CDE policies.

The CDE will receive an annual over-order report listing all ELPAC-testing LEAs who exceed the established over-ordering thresholds by September 15th of each applicable year. Additionally, ETS will provide the CDE with an annual report of the total billed for all excess orders charged to each LEA by September 15th of each applicable year.

ETS will not factor the required automatic LEAs and test site overages into the calculation of excessive orders. Also, ETS will not invoice LEAs if the excess is fewer than 100 books—or another threshold agreed upon with the CDE—in order to avoid administrative costs that exceed the benefit of the prevention process. The charges levied will not exceed the amount that the CDE pays to the contractor for test materials as part of the contract with the test contractor.

7.2.C Initial ELPAC Paper-Pencil Test

For the 2018–19 and 2019–20 administrations, ETS will continue to offer a paper and pencil test for the Initial ELPAC. ETS will print and make the initial assessments available to LEA test coordinators prior to each testing year. Table 23 summarizes the expected testing volumes for the 2018–19 and 2019–20 Initial ELPAC operational administration.

**Table 23. Estimated Testing Volume by Grade—
2018–19 and 2019–20 Initial ELPAC PPT**

Grade	2018–19 Administration	2019–20 Administration
K	180,000	180,000
1	15,000	15,000
2	11,000	11,000
3–5	27,000	27,000
6–8	22,000	22,000
9–10	22,000	22,000
11–12	10,000	10,000
Total	**287,000**	**287,000**

7.2.C.1. Paper Test Booklets and Answer Documents

ETS has assembled and printed Edition 1 of the Initial ELPAC test form, which will be administered in the 2018–19 and 2019–20 administration years. The test materials include:

- Kindergarten Consumable Answer Book

- Grade 1 Consumable Answer Book

- Grade 2 Consumable Answer Book

- Grades 3–5 Reusable Test Book

- Grades 6–8 Reusable Test Book

- Grades 9–12 Reusable Test Book

- Grades 3–12 Consumable Answer Books

The majority of the test materials will be printed as non-scannable documents, except approximately 10 percent of the estimated testing volume will be printed as scannable documents for the LEAs participating in the Rotating Score Validation Process (RSVP) noted in 7.2.C.3. ETS will provide scannable Answer Books and return instructions to LEAs identified in the RSVP along with the test books and examiner's manuals. The LEAs that are not identified in the current year's RSVP will receive non-scannable Answer Books, test books, Examiner's Manuals, and instructions on how to handle materials after testing (e.g., secure storage of used and unused test materials). ETS will require LEAs to provide confirmation of shredding of all used materials.

7.2.C.2. Special Test Versions (Braille and Large-Print)

ETS will use the Edition 1 Braille for the Initial ELPAC developed for the 2018–19 administration.[4] Initial ELPAC braille materials are returned by LEAs to ETS after local scoring. The returned Braille test books will be re-serialized for future orders.

ETS has assembled and printed large print test books for the Initial ELPAC. ETS will base these quantities of the Initial ELPAC large print orders provided by LEAs through TOMS by January 31st annually.

7.2.C.3. Rotating Score Validation Process (RSVP)

The CDE has provided ETS with the list of LEAs that have been selected to take part of the Initial ELPAC RSVP for the next four years. Approximately 10 percent of the total LEAs across California have been assigned into four groups. Each group will have similar characteristics in terms of geographical locations (i.e., north, central, and south) and will have similar numbers of students participating in the ELPAC summative assessment program. Los Angeles Unified School District has been identified to participate yearly, however, only 10 percent of their schools were identified for each year of the rotation. For a given school year, one group of LEAs will send their Initial ELPAC Answer Books for scoring by ETS. The four groups of LEAs will be rotating annually, and newly formed LEAs will be assigned group membership.

RSVP will only include test administration from July 1st to October 31st. There will be four pick-up schedules for LEAs to return their Answer Books for scoring to ETS: mid-September, mid-October, mid-November, and mid-December. From the scoring that ETS performs during this time, a comparison report will be generated to show the results entered on the Local Scoring Tool (LST) versus those scanned and scored by

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[4] ETS will continue to use the 2018–19 Initial and Summative ELPAC braille, large print, and regular print paper-pencil tests in the 2019–20, 2020–21, and 2021–22 administrations as the paper-pencil tests that will be administered to students whose IEP/504 Plan require the use of paper versions or who experience an unexpected, temporary technical issue that prevents them from using the CBA version.

ETS. The comparison reports will be posted on TOMS by mid-November and by mid-December, with a final file posted on January 31st for LEAs. ETS will also provide the comparison reports to the CDE and use these reports to assist in providing LEAs technical assistance and training.

Printing and Packaging

ETS will print and package assessment materials for those participating in RSVP according to the requirements agreed upon with the CDE.

The shrink-wrap, overage, and packaging specifications will support the goal of efficient handling by the LEA and site ELPAC coordinators, also allowing ETS to effectively bundle the necessary quantities of test materials. ETS will provide special test versions of the test book in individual packages with accompanying materials.

ETS will use a state-of-the-art Packaging and Distribution system, which uses barcode-identified packaging components. Barcodes will identify item type, boxes, orders, pallets, and shipments.

Each package will have a tracking number associated with it. ETS will load this order and shipment tracking information into TOMS, where LEA ELPAC coordinators placed their orders. Since TOMS contains email addresses tied to each order's school and LEA hierarchy, the system-generated emails will go to LEA ELPAC coordinators upon shipment of their order. Information on their order will remain available for LEA personnel to view and track in the system.

Material Orders for Initial ELPAC

TOMS will be available beginning spring 2018 and spring 2019 to accept orders for Initial ELPAC test materials for the 2018–19 and 2019–20 administrations, respectively. LEAs will have two opportunities to place their orders: during the primary order window and during the supplemental order window. The primary order window is when LEAs have the opportunity to order at a school level and be guaranteed to receive test materials on or before June 1st, which is approximately 30 calendar days prior to the start of the administration window. The supplemental order window is from June 1st of the current year to June 15th the following year, where LEAs can order specific test materials (i.e., grade 3–5 test books only or additional kindergarten Examiner's Manuals). Orders placed during the supplemental window will be delivered within 10–14 business days from the date the order was placed.

LEA ELPAC Coordinators access TOMS to create an initial order count for each school or LEA. TOMS will compare each order against the LEA's historical testing counts for the previous year. If the difference for any order is 10 percent greater than the order for the administration of the previous year, then the system will display a warning message indicating that the order quantity may be excessive. Any orders that exceed the 10

percent threshold will not be prevented from processing. LEAs should confirm or modify their primary material orders, as this data will be used as the basis for the initial shipment of materials to the LEAs. LEAs should also confirm the coordinator name and shipping address.

The ETS algorithm and Bill of Materials (BOM) will be applied as part of ETS fulfillment step to add an overage (i.e., 10 percent) to the count of regular tests, in addition to determining the appropriate ancillary test materials that must be included in the initial shipment to LEAs. Order details and the BOM will be available in TOMS after order processing has been completed.

Supplemental orders can be placed by LEAs by either calling the CalTAC CSRs who will have access to screens in TOMS that support this ordering process, or by placing the order online themselves through TOMS. This applies to both regular print and special version test materials. These supplemental orders can be made based on identified need from July to June of the following year. These orders will be delivered within 10 business days from the date of the order.

Local Scoring Tool (LST)

For the Initial ELPAC paper test administration in 2018–19 and 2019–20, Answer Books will be locally scored by designated and trained personnel. The Examiner's Manual will include scoring keys, overlays, scoring rubrics, and anchor samples for local scoring. A score sheet is included in the inside back cover of the Answer Book for LEAs to record each score per domain, task type, and item number for the Writing domain. This score sheet mirrors the LST screen on TOMS for LEAs to enter a student's score. Once the raw scores are entered on the LST, scores can be locked, and score report may be printed. Through the LST, LEAs also have the ability to download a data file of scores entered, converted, and calculated that can be merged with the customizable parent/guardian notification letter template. Scores generated from the LST are the official scores.

As the Initial ELPAC migrates to a computer-based assessment, ETS will introduce scoring applicable items through a machine-scoring system. The Teacher Hand Scoring System (THSS) module will be deployed similarly to the Smarter Balanced Interim Assessment to allow test examiners or administrators to score written responses. Once teacher scoring is complete, machine and human scores will be combined into test-level scores and will be provided to LEAs in near real-time via an electronic score report in TOMS.

Collection and Processing from RSVP

Upon migration to CBA, all captured student test responses will be available to ETS for scoring. ETS will follow the RSVP process for CBA responses and will rescore student Speaking (audio capture) and Writing domains for K–12 from schools that were selected

for that administration year. Student responses from the K–2 Writing domain will be captured in the Initial ELPAC Answer Book for K–2 and returned to ETS for scoring. Results of ETS scoring of the Speaking and Writing domains will be compared with local scores.

LEAs in the RSVP will receive monthly precoded Group Identification Sheet and pre-Identification (pre-ID) labels for students that have locked scores on the LST beginning in August to November for the 2018–19 and 2019–20 administration years. All Answer Books to be returned for scoring must have a pre-ID label before returning to ETS once per month according to monthly pick up schedule.

ETS will provide a detailed process outlined in the requirements document with the CDE.

7.3. Computer-Based Assessments

AIR's test delivery system will be used as part of a continued offering for CAASPP, EPAC, and Alternate ELPAC testing programs. This system has the proven operational capabilities need to deliver the full range of assessments.

AIR-Proprietary Test Delivery System

ETS and its subcontractor, AIR, will host and support the AIR-proprietary TDS for the administration of all online California-specific and Smarter Balanced assessments (summative and interim) for California.

As described in Task 5.1, ETS intends to work with Smarter Balanced and the CDE to implement new system features such as updated embedded calculators or illustrated glossaries. As new features become available, ETS will review the technology or feature and make recommendations to the CDE as to the potential systems and program impact. If the CDE requests that the technology or feature be implemented under the current contract, the CDE, in consultation with the SBE, may make material amendments to the contract that do not increase the contract cost. Contract amendments that increase contract costs may only be made with the approval of the CDE, the SBE, and the Department of Finance.

A summary of the existing system features:

- Provides advanced security protocols and techniques to protect both test content and student data.

- Provides educators with a robust set of tools to manage and monitor testing. The system displays each student's progress through the test. Additionally, intuitive, user-friendly icons indicate each student's testing status. Customized student grouping rules can be applied to easily help manage student data.

- Uses current industry-recognized standards (e.g., Standard Interchange Format [SIF], Information Management System [IMS]).

- Is flexible to accommodate the varying technological capabilities that exist in state school LEAs.

- Accommodates virtual networks and/or thin client environments and supports administration within a secure wireless environment on tablets or other mobile devices.

- Includes a rich set of tools to enhance the student's computerized-testing experience.

- Tools are highly customizable and can be configured for each computerized test and test taker as set by the testing procedures and PMP.

- Provides a workflow that makes pre-registration for specific online testing sessions unnecessary.

- Shows online testing metrics, by assessment and state/LEA/school, immediately upon inquiry. Daily completion status reports summarized across state and by LEA are available.

The TDS is a purely Internet-based system that supports operating systems and Internet browsers longer than their original manufacturers. This covers almost all the computers currently found in schools. ETS will not only keep up with advances across all technology proposed for the California Assessment System, but will leverage them to make test content more meaningful and accessible. Therefore, ETS needs to confirm that their system always has forward browser compatibility with the latest operating systems, including iOS®, Androids, and Chromebook™ devices, as well as assistive technology devices.

Annually in spring, prior to the beginning of a new administration year, ETS will provide the CDE with a list of browser versions that the California Assessment Delivery System will support for the coming administration year. ETS also will provide the CDE with a list of browsers that will not be supported for the coming administration year, along with the sunset schedule.

Table 24 describes the secure browser support policy for new operating system releases. Table 25 describes the web browser support policy for new releases.

Table 24. Secure Browser Support Policy for Operating Systems

Release of Third-Party Software	Compatibility	Description
Currently supported operating systems	90 days after release	AIR intends to support a new version of a currently supported operating system within 90 days of official release.
Google ChromeOS	presumptive support	AIR does not block new versions from accessing the site.

Table 25. Web Browser Support Policy

Release of Third-Party Software	Compatibility	Description
Apple Safari, Microsoft Internet Explorer browsers, and Windows Edge	90 days after release	AIR does block new versions of these browsers from accessing the site until they are tested and all issues are resolved.
Google Chrome	presumptive support	AIR does not block new versions of these browsers from accessing the site.

Supported operating systems and recommended specifications follow the CDE Memo Operating System and Browser Additions-Retirements approved on August 10, 2017. ETS will update the operating system specifications annually as part of the Smarter Balanced Implementation Readiness Package described in Task 3. ETS will provide the CDE with advance notice when a secure browser update will be released. AIR will continue to work closely with the major operating system vendors to ensure that the secure browsers will work on any new operating system updates. The latest table of supported operating systems and minimum system requirements can be found on http://www.caaspp.org/ and on http://www.elpac.org/.

The California Assessment Delivery System contains a series of integrated modules that appear to users as a single, integrated system. Once logged in, users can navigate the various components of the system securely. The California Assessment Delivery System has four components: TOMS, the test delivery system, the quality monitor system, and participation reports.

Table 26 provides an overview of each component.

Table 26. Summary of Assessment Delivery System Components

System	Description
Test Operations Management System (TOMS)	TOMS is responsible for: • student registration • demographic data • materials ordering • electronic score report delivery • STAIRS and appeals processing • student exemptions and condition codes for CAASPP and ELPAC assessments
Test Delivery System Test Administrator Interface	The test delivery system's test administrator interface provides the interface through which test administrators establish and monitor testing sessions and authenticate student users. The student interface is the testing system as it appears to the student, on which students take tests. The test delivery system presents test content to students, and allows students to interact with the content and record responses. The test delivery system supports selected response, short answer, free text, student interaction, and voice capture via external device. Student responses, along with demographics data and tested location, are transmitted to data to downstream systems for scoring and reporting. Available for all computer-based tests beginning with the 2015–16 administration.
Quality Monitor System	The quality monitor system receives the data, verifies the validity of the test administered and the item-level scores assigned, and gathers statistical data for ongoing quality reports. Data are then provided to ETS for test-level scoring and reporting.
Completion Status	The online participation reports provides a secure interface to participation data and associated demographic information. Available for all California computer-based tests beginning with the 2015–16 administration.

System Description and Capabilities

To administer tests, the test delivery system needs information about students and test administrators, including authentication information. TOMS gathers data from LEAs, schools, or the state, and transfers those data to AIR's roster tracking system, a flexible

database system shared by the test delivery system and the AIR reporting systems used for completion status. The roster tracking system will house TOMS-provided data provided about the educational networks in California, such as which schools are in which LEAs, which teachers are in which schools, and which students are in which classrooms.

After the test delivery system administers the test to a student, the system passes the resulting data to the quality monitor system. The quality monitor system rescores tests, checks that the tests meet the blueprint, captures statistics on items, and runs a host of extensive quality checks. The quality monitor system also runs a suite of analyses designed to detect cheating, which ETS can make accessible to psychometric personnel at any time. The entire quality checking process occurs in milliseconds. The system then transfers item-level score data to ETS for test-level scoring and population within the electronic reporting systems. In the rare event that the quality monitor system identifies an anomalous test result, the system promptly notifies members of the project team and ETS holds the results until they can be verified.

The interfaces comply with the application programming interfaces and data interoperability standards established by the Smarter Balanced Consortium. Figure 5 provides a schematic of the overall system.

Figure 5. Overall Schematic of the Test Delivery System
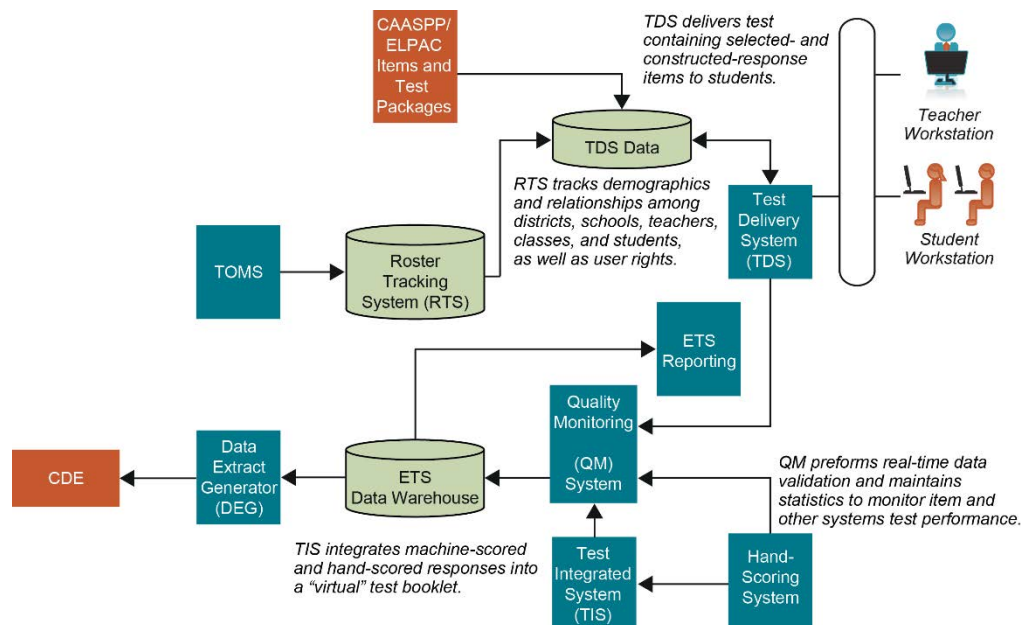
Specific information related to system details, data exchanges, response capture, scoring, and reporting requirements are described in Task 3.

7.3.A.1 Smarter Balanced Interim Assessments

ETS will build on the implementation of the 2017 Smarter Balanced Interim Assessments for LEAs to include:

- the capacity to limit the number of testing opportunities

- educator access to all grade levels of interims using a user-friendly presentation of the available interim assessments

- a visual difference from the summative assessments (e.g., different search or filtering process, different graphic screen element)

- streamlined access to the Smarter Balanced Interim Assessment component for educators, using the same systems and protocols used for the summative assessments

- training of LEA-based trainers in the scoring of student responses to constructed-response and performance-task items, using workshops, videos, and supportive ancillary documents and materials

- training and materials to guide accurate interpretations of scores and support effective use of interim assessment results to improve instruction

- a method for reporting scores to the California educator reporting system for reporting purposes

As part of this contract, ETS and its subcontractor, AIR, will provide services that will incorporate access to the Interim Assessments through TOMS. Access to the Interim Assessments will be available year round. ETS will update the interim assessments by September annually with materials provided by Smarter Balanced. ETS will work with the CDE to develop appropriate roles for administration of summative and interim assessments that limit access as appropriate.

The Interim Assessments will share the same servers as the Summative Assessment. It is estimated that approximately 6.4 million students in kindergarten through grade twelve will have access to the Interim Assessments. This estimate includes the students in grades three through eight and grade eleven who also will have access to the Summative Assessments. ETS and AIR will host a server infrastructure with sufficient bandwidth, hardware, and software to provide the Smarter Balanced assessments and tools to approximately 6.4 million students.

Training Educators in the Scoring of Student Responses to CR Items

As part of the plan to improve educators' access to interim assessments—and to train them to effectively use them—ETS will use its expertise and provide opportunities for educators to learn how to accurately and reliably score student responses to constructed-response and performance task items. Educators training is described in

Task 2. ETS will provide training at eight sessions per administration year focusing on the process of hand-scoring interim assessments as well as accessing the interim assessment systems and Digital Library. Each training session will be two days long and will include hand-scoring training of constructed-response items and of performance tasks. Based on feedback from workshop evaluations, the CDE and ETS can consider modifying this series to be 16 single-day workshops.

Reporting Interim Assessment Scores to Smarter Balanced Data Warehouse

Following the administration of an interim assessment, ETS will securely transfer student demographic information and interim assessment test results to the Smarter Balanced Data Warehouse for prompt reporting via the California Educator Reporting System (CERS). If Smarter Balanced implements a federated process for user authorizations, ETS will work with Smarter Balanced to allow for single sign-on access to the CERS to make it seamless for educators to use all components.

7.3.A.2. Appeals for Computer-Based Assessments

The online Security and Test Administration Incident Reporting System (STAIRS) is the starting point for local educational agencies (LEAs) and schools to report a test security incident or other testing issue that interferes with the administration and completion of the assessment. As described in Task 4.2, STAIRS will be integrated into the California Assessment System and will be available through TOMS for both the CAASPP and ELPAC administrations. The STAIRS integration will support various decision outcomes related to incidents impacting CBAs and PPTs. The system will allow LEA users to enter appeals for CBAs immediately following the incident decision. The system will be configurable to allow specific incidents to not require an appeal in instances where appeal is not applicable due to delivery mode (i.e., paper test) or the incident itself does not require an appeal. All completed STAIRS incidents will be saved in the system when the decision outcome is presented to an LEA user, and will be searchable.

LEA coordinators and test site coordinators must confirm that all test security incidents are documented through STAIRS. The STAIRS process available in TOMS will provide immediate outcome notification to the LEA on what the next steps are. If a test appeal is required, then appeal selection screen will be immediately available upon STAIRS incident completion. LEAs can submit appeal request immediately without having to wait for an email notification or having to navigate to a different California Assessment System module. Other STAIRS outcomes may include one or more of the following: contact CALTAC, contact the CDE, or retain record of incident—no other action required. ETS will provide automated email notifications to LEAs to follow up on test invalidations that were not completed in timely manner.

The integrated appeal system provides an online method by which LEA coordinators may submit an appeal for a computer-based assessment. The system handles all of the current appeals types and conditions required by the CDE and Smarter Balanced. This will include all CAASPP assessments, as well as all future ELPAC CBAs, including

Alternate ELPAC CBA, when it becomes available. ETS will confirm with the appeals types and conditions for each administration during the Annual Planning meetings.

A team of trained ETS representatives, in conjunction with the CDE, will be responsible for monitoring the appeals queue via the online appeals system. Monitoring and processing of the outstanding appeals will take place throughout the day, Monday through Friday, during the test administration period. The designated team will review each request and approve or deny the appeal based upon the requirements documented for each type of appeal. ETS will work with the CDE annually on the approved STAIRS criteria that includes representatives from each of the California Assessment System.

ETS will work with the CDE on a mutually agreeable process for handling appeals authorized by 5 CCR Section 860, review this information annually with the CDE, and include it as part of the Security Incidents and Appeals Procedure Guide.

After ETS enters and reviews an appeal within the system, the LEA will receive a status of the appeal, whether it has been approved or denied. The LEA can review reasons for denying an appeal in the appeals database.

ETS will report weekly on the status of all appeals, whether they be approved, rejected, or outstanding appeals that are still in the queue to be processed. ETS will be prepared to report daily or on demand as needed by the CDE.

ETS will maintain a log of appeals that includes at least the following data elements:

- Date appeal was requested

- Date appeal was processed

- Name of LEA

- Name of School

- Grade Level

- Reason for Appeal

- Type of Appeal

- Appeal Decision

7.4. Contracting with LEAs for STS for Dual Immersion-Programs

(Not applicable.)

TASK 8: Scoring and Analysis

ETS will work with the CDE to lay out and document the scoring procedures. After scoring is complete, ETS will follow existing quality assurance processes to confirm and validate the results. Finally, ETS will perform a series of tests, which will include processing sample data through an end-to-end sequence, to verify accuracy.

8.1. Scoring

ETS will integrate scoring the assessments using Smarter Balanced- and California-required methods and procedures. ETS will develop a methodology for scoring ELPAC when a domain exemption is used. ETS will work with the CDE to lay out and document these scoring procedures and will follow the agreed-upon quality assurance process to confirm and validate the results. Finally, ETS will perform a series of tests, which will include processing sample data through an end-to-end sequence that verifies accuracy.

Scoring Process Flowcharts

For computer-based assessments, ETS will deliver test results no later than three weeks after a student completes testing in a given content area for CAASPP, four weeks for Summative ELPAC CBA and Summative Alternate ELPAC CBA, and near real-time for Initial ELPAC CBA and, pending approval of the HLTD, Initial Alternate ELPAC CBA. For the 2018–19 Summative ELPAC paper administration, ETS will deliver test results no later than six to eight weeks after ETS has received and processed the student answer documents for scoring. Figure 6. CAASPP Computer-based Test Delivery—Scoring and Reporting Flow, Figure 7, and Figure 8 illustrate the process ETS will use for scoring for CAASPP, Summative ELPAC CBA, and the Initial ELPAC CBA, respectively. Information about the reporting requirements and timelines are included in Task 9 in Table 30, Table 31, Table 32, and Table 33.

Figure 6. CAASPP Computer-based Test Delivery—Scoring and Reporting Flow

Student completes CAASPP assessments → AIR transmits the data (machine scores and responses for hand scoring) to ETS for tests completed that day → ETS and MI hand score items

ETS and MI hand score items → Scores from hand-scored items are merged with machine scored results → Final scoring and validation → Scores are available online no later than three weeks after assessments are completed
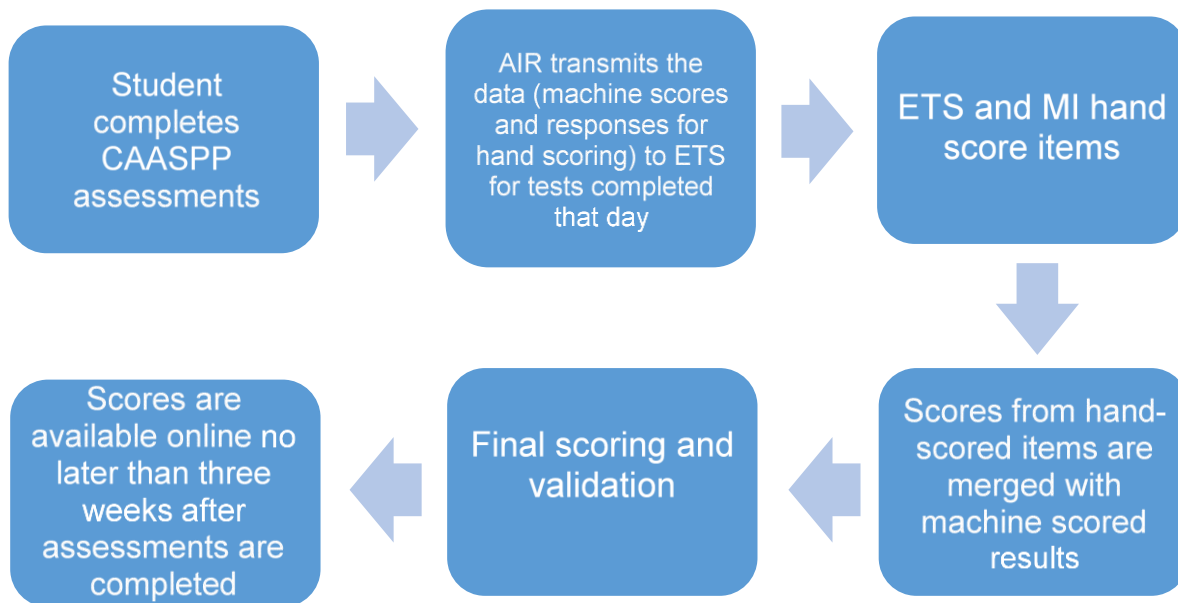
Figure 7. Summative ELPAC CBA Scoring and Reporting Flow (2019–20, 2020–21, and 2021–22 administrations)

Student completes Summative ELPAC assessment in the TDS* → Test examiner administers Speaking and submits scores to the TDS → TDS automatically sends student responses and Speaking score to ETS → ETS hand scores responses to constructed-response items → ETS merges the hand-scored items with the machine-scored results, including Speaking scores → ETS completes scoring and validations → ETS releases scores online

*

For K–2, test examiners will administer the Summative ELPAC CBA as one-on-one administrations and will determine on a student-by-student basis whether the student enters their own responses into the TDS.

Figure 8. 2020–21 Initial ELPAC CBA—Scoring and Reporting Flow (2020–21 and 2021–22)

*
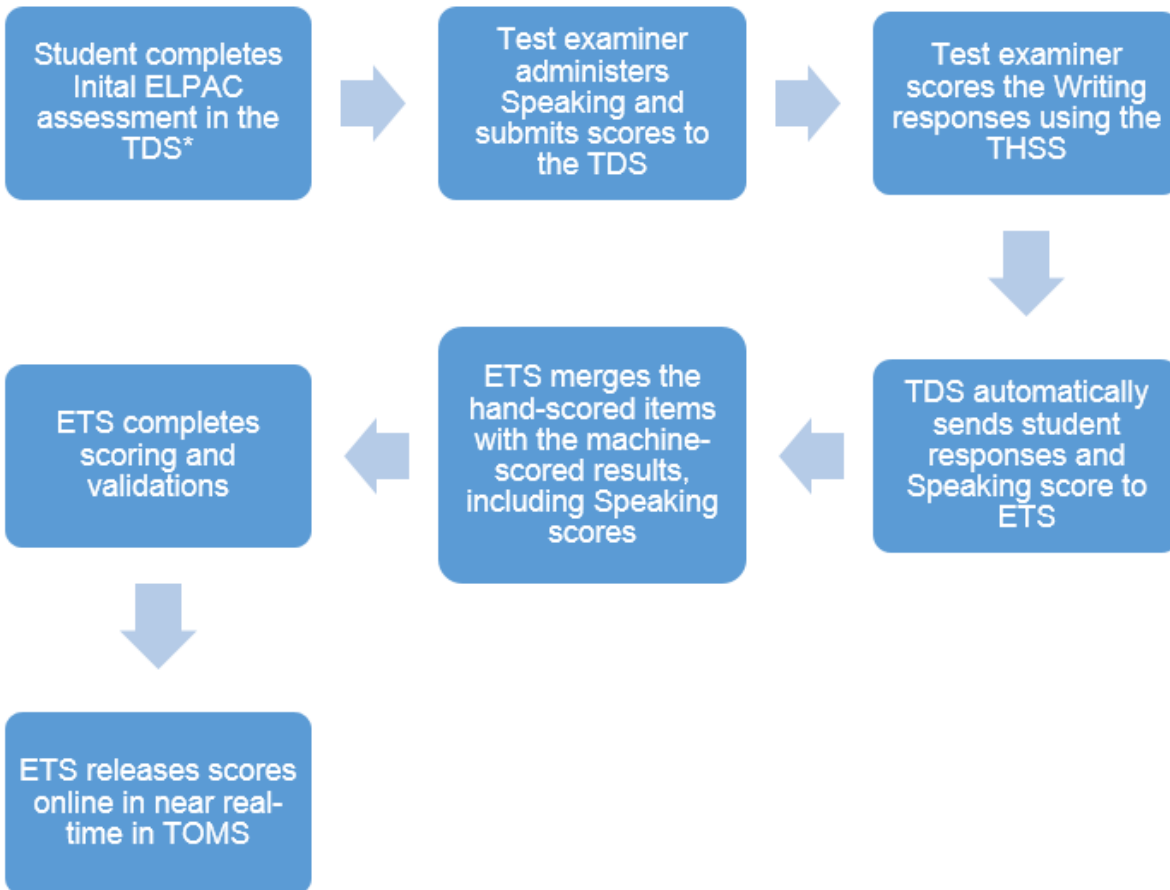
For K–2, test examiners will administer the Initial ELPAC CBA as one-on-one administrations and will determine on a student-by-student basis whether the student enters their own responses into the TDS.

For all CAASPP paper-pencil tests, including any CAST paper-pencil tests beginning in 2019–20 administration, ETS will deliver test results within six weeks after receiving the materials to confirm complete and accurate processing. Figure 9 illustrates the process ETS will use for scoring paper-pencil Smarter Balanced and CAST assessments. The SLA for Smarter Balanced and CAST paper-pencil states that the six-week time period for processing paper results does not start until ETS confirms complete and accurate answer documents.

Figure 9. Smarter Balanced and CAST Paper-pencil Test Delivery—Scoring and Reporting Flow
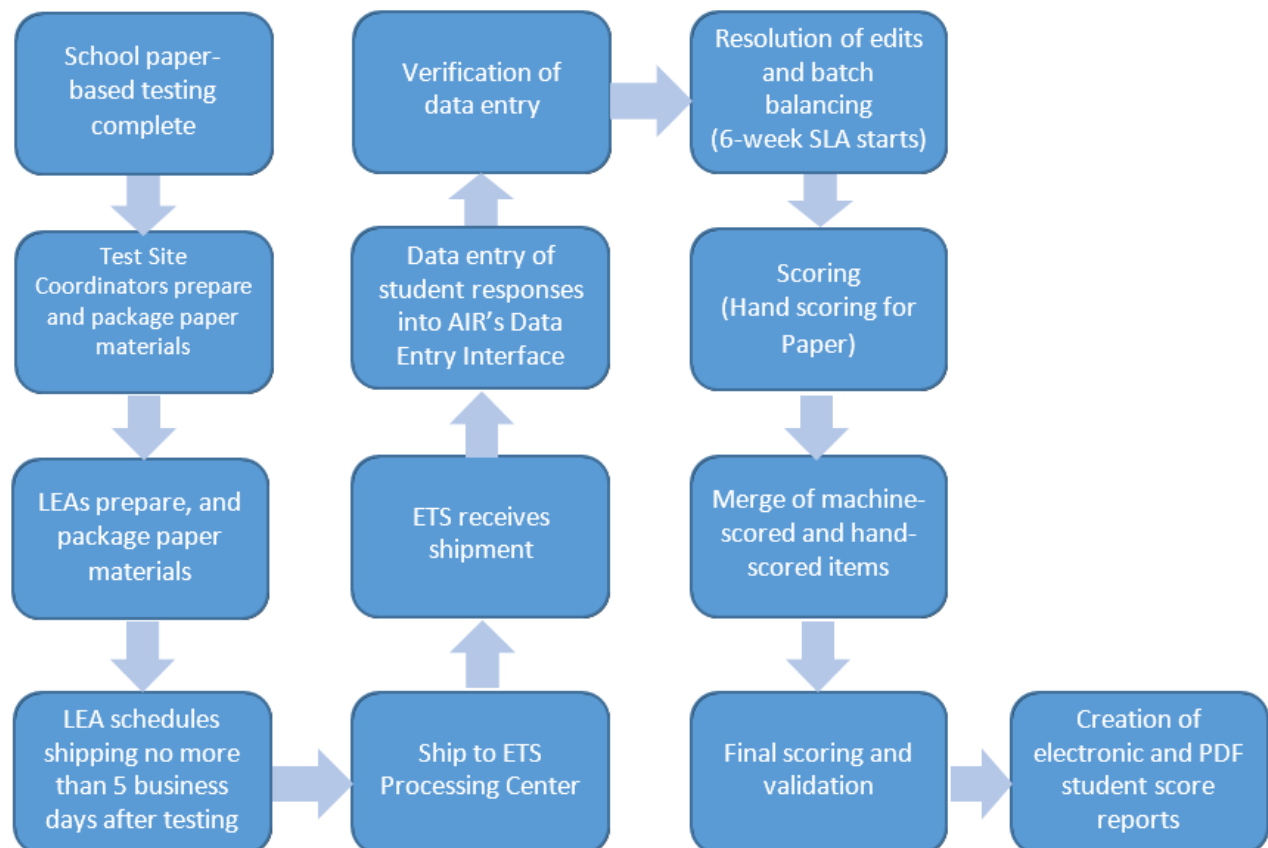
For Summative ELPAC paper-pencil tests, ETS will deliver test results within six to eight weeks after receiving the materials to confirm complete and accurate processing. Figure 10 illustrates the process ETS will use for scoring paper-pencil Summative ELPAC assessments. The SLA states that the six- to eight-week time period for processing paper results does not start until ETS confirms complete and accurate answer documents.

Figure 10. Summative ELPAC Paper-pencil Test Delivery—Scoring and Reporting Flow
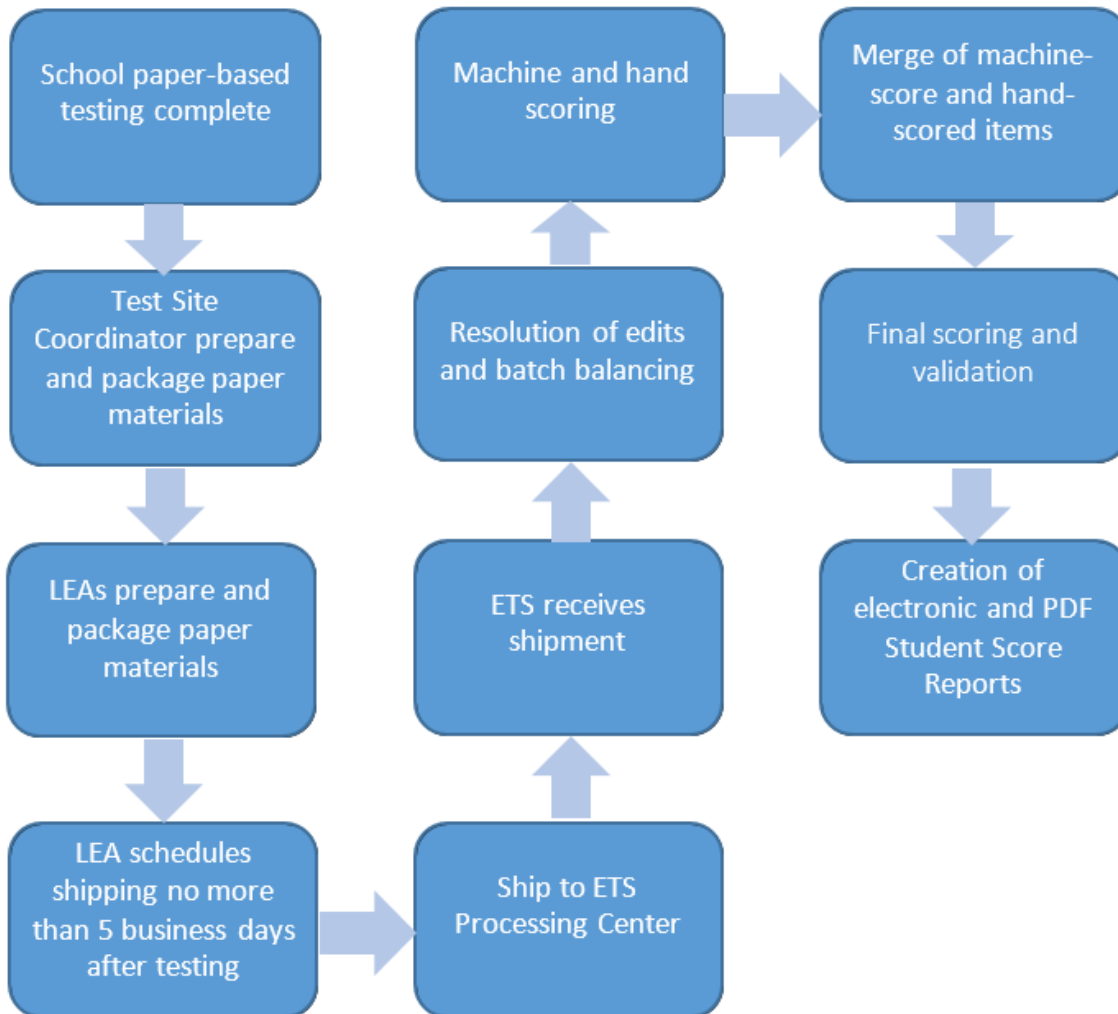
Rescore Requests

Request for a rescore will be provided to LEAs following the CDE-approved procedure for requesting the rescoring of an individual student's responses or a set of classroom-level responses. ETS will provide results of any such rescores to the requesting LEA within 30 business days of receipt of the request. In the case that the rescore indicates any anomalies, ETS will verify the correct scores and issue corrected score reports. In such an event, there will be no charge to the LEA. ETS will also conduct CDE rescore requests at no charge to the CDE. If any such CDE-requested rescoring requires updating and/or distribution of new data and score reports, there will be no charge to the CDE or to this contract.

8.1.A. Methods of Scoring

ETS will utilize all necessary scoring methods for each of the following item types:

- **Selected-response Item Scoring.** The AIR test delivery system (TDS) will administer, score, and subsequently include item responses with scores as part of test results. If applicable, machine item scores will be used by the CAT algorithm to determine which item to administer next. The system scores machine-scored items automatically in real-time. ETS will house student results in the ETS-maintained database of record. This secure response repository will contain CAASPP and ELPAC student results and assessment registration information.

- **Constructed-response Item Scoring.** Constructed-response items, including technology-enhanced items, require students to provide written responses, from simple fill-in-the-blank items with comprehensive lists of possible answers to full essay responses. Scoring approaches for these items generally fall into three categories:

  - Deterministic Scoring. This includes machine-scored items, basic TEIs (e.g., matching items, hot spots), or simple fill-in-the-blank items with comprehensive lists of possible answers.
  - Human-scored Responses. As the name suggests, these items involve constructs that require human scoring.
  - AI Scoring. ETS has developed rater engines that make it possible to automatically score more complex constructed-response items—such as items that ETS can score by matching a mathematical function (e.g., plot a line, use an equation), or longer constructed-response items that move beyond simple fill-in-the-blank types—that expand the possibilities for constructed-response items. AI scoring often requires some level of human scoring to train the scoring engine and validate the scores.

Scoring Speaking Responses. The AIR test delivery system will digitally capture student Speaking responses via an external device and allow for the test examiner to score each question in the TDS during the test administration. Once all opportunity responses are scored, scores and responses are sent downstream for test-level scoring.

8.1.A.1. Deterministic or Machine-Scoring

ETS's system will maintain each unique scoring key used to score the programs. All Smarter Balanced machine-scored items will be imported into ETS's systems.

ETS will score the multiple-choice, gridded responses, and computer-scored technology-enhanced items using the production keys or scoring rules.

8.1.A.2. Human and AI Scoring

ETS will score performance task (CAASPP item type only) and constructed-response student responses (including mathematics responses in Spanish) to maximize validity and reliability while incorporating efficiencies wherever possible. Table 27 represents the division of labor between ETS and MI for the Summative CAASPP assessments. Table 28 represents the division of labor of ETS scoring for the Summative ELPAC CBA and PPT, Initial ELPAC PPT for RSVP, and Initial ELPAC CBA for RSVP, as well as the local scoring of the Initial ELPAC PPT and CBA.

By design, student responses to the Smarter Balanced Interim Assessment performance task and constructed-response items and Initial ELPAC Speaking and Writing items will be scored locally as determined by each LEA for their needs. Task 8.1.B.1 provides additional information about the Smarter Balanced Interim Assessment Scoring activities as well as additional information about Initial ELPAC PPT and CBA local scoring.

The procedures ETS proposes for California include:

- careful recruiting of raters utilizing ETS best practice hiring process

- extensive training of all levels of scoring leadership, not only on the prompts, rubrics, and related scoring material but on how best to monitor the quality of the scoring

- rigorous training of the raters in appropriately applying the rubric for each prompt type, following the generic sample responses that exemplify the quality required for each score point so that every prompt is scored on the same general criteria

- requiring new raters to demonstrate their accuracy by passing a "certification" test before being assigned to score a specific assessment and then by passing a shorter, more focused "calibration" test before each new prompt type

- using scoring leaders to read behind and monitor raters; scoring leaders have the option of evaluating responses a rater previously scored, with or without the knowledge of the score he or she gave (i.e., "informed" versus "blind" back rating)

- using the scoring system's live operational data to identify (and, for scoring leaders, then counsel) raters who are reading at unusually slow or fast rates

- using content scoring leaders to monitor the scoring leaders and their virtual teams

- including pre-scored validity responses (sometimes called monitor papers) within each rater's set of assigned responses to evaluate ongoing accuracy while scoring

- regularly analyzing inter-rater reliability (IRR) statistics to verify that raters are scoring consistently (the scoring system produces real-time IRR and validity response scoring statistics)

Table 27. Performance Task and Constructed-Response Scoring of Summative Assessments, by Content Area and Grade for Human and AI Scoring

Grade	Smarter Balanced Summative Assessments–ELA	Smarter Balanced Summative Assessments–Mathematics	CAST	CSA*	CAAs for ELA and Mathematics	CAAs for Science
Grade 3	ETS	MI	N/A	N/A (no CR items)	N/A (no CR items)	N/A
Grade 4	ETS	MI	N/A	N/A (no CR items)	N/A (no CR items)	N/A
Grade 5	ETS	MI	ETS	N/A (no CR items)	N/A (no CR items)	N/A (no CR items)
Grade 6	MI	ETS	N/A	N/A (no CR items)	N/A (no CR items)	N/A
Grade 7	MI	ETS	N/A	N/A (no CR items)	N/A (no CR items)	N/A
Grade 8	MI	ETS	ETS	N/A (no CR items)	N/A (no CR items)	N/A (no CR items)

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Grade	Smarter Balanced Summative Assessments– ELA	Smarter Balanced Summative Assessments– Mathematics	CAST	CSA*	CAAs for ELA and Mathematics	CAAs for Science
Grade 9	N/A	N/A	N/A	N/A (no CR items)	N/A	N/A
Grade 10	N/A	N/A	ETS	N/A (no CR items)	N/A	N/A (no CR items)
Grade 11	ETS	ETS	ETS	N/A (no CR items)	N/A (no CR items)	N/A (no CR items)
Grade 12	N/A	N/A	ETS	N/A (no CR items)	N/A	N/A (no CR items)

* The CSA field test, administered during the fall of 2018, will include constructed-response items that ETS will score.

Table 28. Scoring for Summative and Initial ELPAC—CBA and PPT Constructed-Response Items (Draft, pending approval of the HLTD)

Grade	Summative ELPAC—CBA and PPT	Initial ELPAC CBA for RSVP Group	Initial ELPAC PPT for RSVP Group	Initial ELPAC PPT and CBA
K, 1, and 2	ETS for all except Speaking Locally scored at the LEA for Speaking only	ETS	ETS	Locally scored at the LEA

Grade	Summative ELPAC—CBA and PPT	Initial ELPAC CBA for RSVP Group	Initial ELPAC PPT for RSVP Group	Initial ELPAC PPT and CBA
3–5, 6–8, 9–10, and 11–12	ETS for all except Speaking Locally scored at the LEA for Speaking only	ETS	ETS	Locally scored at the LEA

*The Summative ELPAC includes two tests at high school: the test for grades nine through ten and the test for grades eleven to twelve. The Initial ELPAC includes one test at high school for grades nine through twelve.

For the Initial ELPAC PPT, identified LEAs in the RSVP group will submit their Answer Books to ETS for back scoring. ETS will score the Listening, Reading, and Writing domains of the test. The Speaking domain marked on the Answer Book will be included as the Speaking domain score.

For the Initial ELPAC CBA, ETS will also score the Speaking and Writing domain responses for K–12 for those identified LEAs in the RSVP group. The results of the ETS scoring will be compared to local writing scores entered in the THSS and the Speaking scores entered into the TDS. ETS will provide participating LEAs and the CDE the comparison report of ETS scoring and local scoring.

For Summative ELPAC CBA, ETS will provide Answer Books to capture Writing domain responses for K–2. Speaking domain responses will be captured using voice capture technology and will be scored by test examiner during administration. ETS will perform back scoring of 1,200 of audio-captured speaking responses for each Speaking item.

Using Hand Scoring of Constructed-Response Items for Teacher Professional Development

ETS remains committed to maximizing the involvement of California teachers in scoring student responses to items and in increasing the professional development opportunities to the greatest extent possible. ETS will follow best practices as recommended by Smarter Balanced and CDE (for non-Smarter Balanced assessments) for using scoring as a professional development tool for teachers in California.

ETS will involve teachers in four types of large-scale scoring activities: (1) ELPAC Scoring Training, (2) Summer Institutes, (3) Range-Finding Meetings, and (4) Live Operational Scoring.

To encourage teacher involvement with these professional development opportunities, ETS will provide reimbursement to any California teacher or to the teacher's LEA for their participation:

- If a California teacher's school is not in session when he or she participates in the workshop, ETS will provide a stipend of $150 per day to the California teacher for each day he or she attends the workshop. The teacher will not receive the stipend if his or her school is in session when the teacher attends the workshop.

- If a California teacher's school is in session when he or she attends the workshop, ETS will provide substitute teacher reimbursement of $150 per day to the California educator's LEA for each day that the educator is not working at his or her LEA due to participation in the workshop. The LEA will receive the substitute teacher reimbursement only if the teacher's school is in session when the teacher attends the workshop.

(1) ELPAC Scoring Training. For ELPAC PPT and CBA and for Alternate ELPAC CBA, ETS will conduct statewide in-person trainings for each field test or operational administration, using the "training of trainers" model to prepare individuals to train test examiners for their own region or LEAs and to teach other qualified staff how to administer and score the ELPAC. The primary focus of these trainings is to produce valid and reliable local scoring. This is especially important for the Speaking domain (for both Summative and Initial) and Writing domain (Initial only), where the local scores are the official scores.

Timing of ELPAC Scoring Training

- 2018–19 administration only

  - For Summative ELPAC PPT, ETS will hold 24 statewide all-day scoring trainings in the fall prior to the start of the Summative operational assessment window in February.
  - For Initial ELPAC PPT, the ETS SCOE team will hold 16 statewide all-day scoring training in the spring prior to the start of the Initial operational assessment window in July. The team also will hold four make-up training sessions in August.

- 2019–20 through 2021–22 administrations

  - For Summative ELPAC, ETS will hold 20 statewide all-day scoring trainings in the fall prior to the start of the Summative operational assessment window in February.
  - For Initial ELPAC, the ETS SCOE team will hold 16 statewide all-day scoring training in the spring prior to the start of the Initial operational assessment window in July. The team also will hold four make-up training sessions in August.

An online learning management system (LMS) will deliver online training content to trainers and test examiners. This widely available online training site will support the

"training of trainers" model for LEAs and regional workshop hosts, as well as the training of individual test examiners. The following bullets provide further detail regarding the training content provided through the LMS.

- The online resources will include:

  o training videos,
  o LEA and regional trainer training presentations and scripts, scoring training exercises, and
  o scoring calibration quizzes.

- Test examiners can work through the training materials and training exercises on their own, or as a part of a group during an in-person LEA training workshop.

- Once they complete their training, test examiners can take the scoring calibration quizzes. The quizzes can be taken as many times as necessary to achieve the required calibration level.

- Once the trainee completes a calibration quiz and meets or exceeds the required calibration level, the trainee can print a report showing that they have passed the calibration quiz.

- Coordinators can also track which test examiners completed the quizzes.

(2) Summer Institutes will provide training directly to teachers and other educators.

These workshops, detailed in Table 2 in Task 2, will include:

- the design of Smarter Balanced interim assessment items aligned with college- and career-ready standards and the use of hand scoring to analyze student work

- pre-scored constructed-response samples in the scoring training sessions

- training that will increase teacher effectiveness in teaching and evaluating writing

- feedback to teachers that will support improvement in student performance

- online posting of materials, such as a guide to facilitation, that support local dissemination of information

- training on how to use the interim assessment and Digital Library systems, including accessibility features to support teaching and learning

- opportunities for teachers not qualified for the summative scoring

- recruitment and training of California teachers to score Smarter Balanced Summative assessments

(3) Range-Finding Meetings for CAST and ELPAC will take place after each administration for any field test constructed-response items that require rubric scoring. In the case of the Initial ELPAC Speaking items for both paper and CBA, range-finding meetings will take place before an operational administration in order to support the development of materials for local scoring. The grade-specific committees will include teachers, LEA/school curriculum staff, LEA/school administrators, and higher education staff as specified by the CDE. These range-finding meetings will provide input into score ranges for each item, scoring rationales, and identify anchor sets with exemplar responses.

(4) Live Operational Scoring will provide current California teachers, to the maximum extent possible, the option to engage in operational scoring of Smarter Balanced Summative ELA and mathematics, CAST, Initial ELPAC (RSVP), and Summative ELPAC student responses in both PPT and CBA forms. Operational scoring refers to the activity by which student constructed responses receive a score that will be reported. To achieve this, ETS will employ the following strategies:

   a. **Recruitment Tactics to Maximize California Teacher Involvement.** To encourage California teachers to participate in distributed scoring, ETS proposes the following:

   - reach out to a collection of educator stakeholders, such as the Education Coalition
   - offer teachers professional development or continuing education credit – ETS will explore the possibility with the appropriate state offices to offer continuing education credits to teachers
   - offer California teachers priority processing over other raters and provide them with their own link through the CDE and California teachers associations websites

     - Priority processing means that, as applications come in to the scoring centers, applications from California teachers will be placed at the very front of the queue, guaranteeing them priority in the training, certification, and hiring process.

   - reach out to Teacher Education Programs throughout the State to target pre-service teachers

     - ETS will suggest criteria or possible pilot programs for consideration of the CDE and SBE to expand the pool of potential raters beyond the current requirement of a bachelor's degree.

b. Rates:

o Hourly: At the time of hiring, all reviewers are expected to make a reasonable commitment to participate in summative scoring, as defined annually by the CDE and SBE staff.

- The hourly rate for scoring in the program is $13 an hour. The ETS rate is generally above minimum wage rates in the jurisdictions where ETS employees work. ETS has an internal process to identify jurisdictions with minimum wage requirements above this rate and to apply these state or local requirements where applicable.
- The hourly rate for scoring by certified California educators is $20 per hour, retroactive to the time of hiring. ETS will work with the CDE to operationalize the process and will submit the process for review and approval by the CDE and SBE staff. In the event that the ETS hourly rate for non-California educators increases, ETS will raise the $20 per-hour enhanced pay for California educators to maintain the $7 per-hour pay incentive.

Scoring Preparation and Execution for California

Rater Recruitment

ETS will recruit and hire the necessary number of qualified raters to meet the scoring timelines. A qualified rater must meet the following eligibility requirements: (1) has, at minimum, an undergraduate degree from an accredited college or university; (2) resides in the continental United States, Alaska, or Hawaii; and (3) is eligible to work in the United States. ETS will require verification of rater credentials including college degrees or other qualifications as determined in cooperation with the CDE and SBE staff. Practicing or former teachers are preferred. ETS will specifically recruit California teachers and educators and plan to hire as many qualified applicants from California as possible. In addition, recruitment outreach will include prior raters who are currently scoring or have successfully scored responses for one or more large-scale constructed-response programs.

ETS will appoint a team of highly experienced human resources professionals to recruit and achieve the CDE's stated program requirements. This dedicated team will be responsible for vetting and hiring the required number of qualified raters and leaders to meet the volumes specified by Smarter Balanced ELA, as well as the volumes required to score CAST, Summative ELPAC, Initial ELPAC (RSVP) and the field test items for the CSA. The purpose of scoring the CSA field test items is to develop scoring rubrics and, when appropriate, scoring models that will contribute to the development of operational scoring data.

Organizational Scoring Structure

The organizational structure for Smarter Balanced ELA, CAST, Summative ELPAC, and Initial ELPAC (RSVP) will encompass:

- **Content scoring leaders.** These team members have overall responsibility for one or more assessments, working under the supervision of ETS's assessment development content experts. Working across the leadership team for their domain, such as the ELA Upper Level grades, the content scoring leaders will escalate non-routine issues (e.g., test security cases), review the performance of the group scoring leaders, and oversee the quality and progress of the scoring, working closely with assessment developers, scoring experts, and human resources professionals.

- **Group scoring leaders.** These team members provide key leadership and feedback to scoring leaders, carefully monitoring the overall quality and progress of the scoring. They score complex, non-routine responses and resolve any content-related issues raised by leaders.

- **Scoring leaders.** Scoring leaders' primary duties will include monitoring and reporting on a team of raters. Leaders back-read their teams throughout the scoring process, offering feedback and resolving selected non-routine responses.

- **Raters.** Based on their given availability, ETS schedules these members to calibrate and then score assigned responses.

During rater recruitment, ETS evaluates, trains, and tests raters to determine their ability to read responses and score to the required accuracy level. If an applicant meets all the specifications, then ETS will certify him or her as a rater.

Scoring Plan

AI Scoring

In conjunction with experts and researchers, ETS will work with the ETS partners and the CDE to develop AI scoring models for all CAASPP assessments where applicable. In the case of the Smarter Balanced Summative Assessments, ETS will work with Consortium leadership to utilize AI scoring potential to reduce turnaround time for student reporting, increase accuracy, and continue to provide appropriate models for professional development.[5] In all cases, AI scoring will only be applied to items that meet the most rigorous technical specifications for scoring that equal or exceed standards for human raters and upon the approval of the CDE. ETS will investigate AI

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[5] Perie, M. (2014). University of Kansas. *Report prepared March 27, 2014 for the Smarter Balanced Assessment Consortium.* Unpublished manuscript.

scoring options for Summative ELPAC and will propose solutions for CDE consideration through the established Change Management process described in Task 1.1.

Development of Scoring Training Materials for New Assessments

Following range finding, the scoring team will create the various sets needed to train, qualify, and monitor raters for the CAST operational administrations.

ETS will include a set of decision (i.e., anchor) papers, which will be identified during range finding, that represent the fine lines at the top and bottom of each score descriptor on the rubric. ETS will select these responses based on their scoring "difficulty" (e.g., is the response a high 2 or a low 3?).

Training

Dependent upon the assessment to be scored by ETS, the Scoring Trainers will use either ELPAC, CAST, or Smarter Balanced training materials for each grade level and train by item type to develop a strong foundation to score a variety of items within the type for which they qualify. ETS will leverage the ELPAC, CAST, or Smarter Balanced-based infrastructure in place to allow for ongoing trainings as ETS brings on raters to handle any fluctuations in scoring demands. ETS will complete scoring on a rolling basis and return the results within the window specified.

ETS will train the raters to evaluate types of items within a specific grade and content area. By focusing on a specific type of response, the rater will develop specialization in understanding and applying the nuances of the rubric criteria for the item type. This internalization of the rubric by type will allow raters to apply the general scoring criteria to multiple items accurately. For performance tasks, when scoring criteria for performance tasks within a family is generalizable across the performance task type, raters will train across all performance tasks in the type as a unit. ETS anticipates that the training and qualifying sets from either ELPAC, CAST, or Smarter Balanced will consist of items and responses most representative of the type that ETS will score. Scoring trainers will use the latest Smarter Balanced training materials to help the raters learn to apply the criteria illustrated in the Scoring Guide, confirm the raters become familiar with the process of scoring student responses, and assess the raters' understanding of the scoring criteria before they can begin live scoring.

ETS will employ flexible and secure online training interfaces for the rater training in the scoring sites and with distributive scoring activities. ETS will use the online training interfaces to allow ETS to lead interactive training sessions that emulate the best characteristics of face-to-face training. Using these same systems, the CDE will be able to actively monitor all hand-scoring training and scoring activities without travel.

ETS raters will utilize the identification of condition codes, unusual prompt treatment, and Alert situations (e.g., child-in-danger); as well as other particular types of responses that they should forward to the Scoring Leaders during live scoring.

Qualification. Each member of the ETS scoring staff will qualify for scoring student responses based on established California criteria following a rigorous training process. ETS will maintain a consistent level of scoring quality throughout the scoring effort. ETS will submit documentation of all training processes and results to the CDE at the conclusion of scoring.

Scoring Systems

The ETS online distributed scoring platform contains the key features, functionality, and related benefits that California needs for effective high-quality scoring.

To satisfy California's need for rapid scoring turnaround, ETS will use this platform to:

- use selected criteria to prioritize the scoring of responses in queue

- stratify response scoring, based on the alignment of student and rater demographic data, to reduce potential scoring bias

- randomly distribute responses

- reconfigure pre-set scoring rules in a prioritized order, when necessary, to achieve scoring deadlines

Quality Control

ETS will utilize a variety of procedures for controlling rating quality along with the monitoring of the raters.

These procedures include:

- **Rigorous training of the scoring leadership.** Content scoring leaders, group scoring leaders, and scoring leaders will receive training respectively on their assigned grade level(s) and prompt types prior to the annual scoring period. In subsequent years, top leadership will conduct refresher sessions.

- **Extensive training of raters.** Raters will go through a training period where they learn to appropriately apply the rubric for each prompt, following the Smarter Balanced-provided and the CDE-developed benchmark sample responses that exemplify the quality required for each score point. ETS online scoring platforms will support rater training with a full-service menu of training options, including orientation materials, program-specific information, and training on how to use the platform, and interactive training that includes practice scoring for both potential and qualified raters.

Rater Reliability

ETS will conduct second reads for all hand-scored responses without adjudication for the Smarter Balanced Summative Assessment and CAST. The second read will be used as a quality assurance measure to validate the consistency of the scoring and

measure the accuracy of the scoring, and the first read will be used as the final score for the response. Like the first reads, the second reads will be conducted independently by raters who have currently qualified to score Smarter Balanced or CAST responses. For the Smarter Balanced Summative Assessments and CAST, the target number of second reads for hand scored responses is 1,200 for each hand-scored item. Scoring Leadership will monitor rater scoring through the back read process and rater mentoring to maintain scoring quality and adherence to the rubric. In the event that the first read and the second read do not match, Scoring Leadership will note the discrepancy as part of the analysis described in the following sections.

ETS will conduct second reads for all hand-scored Writing responses with adjudication for the Summative ELPAC assessment. The second read will be used as a quality assurance measure to validate the consistency of the scoring and measure the accuracy of the scoring, and the first read will be used as the final score for the response. Like the first reads, the second reads will be conducted independently by raters who have currently qualified to score ELPAC responses. For ELPAC, if there is a discrepancy of greater than 1 point between rater 1 and rater 2, a scoring leader will score the response and that score will become the final score for the response. For the Summative ELPAC assessment, the target rate of second reads for hand-scored Writing responses is 1,200 for each hand-scored items. Scoring Leadership will monitor rater scoring through the back read process and rater mentoring to maintain scoring quality and adherence to the rubric. In the event that the first read and the second read do not match, Scoring Leadership will note the discrepancy as part of the analysis described in the following sections.

For Summative ELPAC CBA, Speaking domain responses will be captured using voice capture technology and will be scored by test examiners during administration. ETS will perform back scoring of 1,200 audio-captured speaking responses per Speaking item.

ETS's scoring systems will capture and report the quality monitoring data that are available to scoring supervisors. These data include: the number and percent of exact matches for each rater; the number and percent of adjacent scores. ETS will confer with the CDE to outline requirements for rater reliability reports so that ETS can provide this information with the necessary level of detail. MI will transfer the quality data from its system to ETS daily for consolidation of reporting.

The scoring specifications will include the requirement to maintain an average inter-rater reliability of 70 percent or higher. When ETS identifies an item that falls below this threshold, ETS will notify the CDE and make a recommendation for the CDE to consider.

ETS considers scores captured within the distributed scoring systems to be raw scores. ETS exports these scores, once acceptable according to the California rules, to the final scoring and reporting system, which will report the scores on appropriate scale for each prompt.

Questionable Content and Confidentiality (Crisis Papers)

ETS will implement a formal process for informing the CDE when student responses reflect a possible dangerous situation for the student or for others. For possible dangerous situations, scoring project management and staff will employ a set of Alert procedures to notify the CDE of responses indicating endangerment, abuse, or psychological and/or emotional difficulties or propensity towards violence or harm against themselves or others. ETS will use an automated process for the identification of crisis or alert papers for computer-based assessments, including the embedded Smarter Balanced field test items, and a human identification process for paper-pencil assessments. Responses identified by the automated process will be reviewed by a human reviewer prior to communicating with the LEA staff. The automated process allows ETS to review not only operational constructed responses, but allows ETS to review student's responses to field test items and non-scoring inputs, such as notes.

If a rater identifies a response during the scoring process, which may require an Alert, then he or she flags or notes that response as a possible Alert and transfers the image to the scoring manager. Scoring leadership will then decide if they need to forward the response to the CDE for further review and action.

ETS will make any other adjustments to the process based on CDE-specific requirements. ETS will communicate weekly—or more often, if required—with updates on crisis papers to CDE through email.

ETS will use the following process for paper-pencil assessments to notify the CDE and LEAs of crisis papers.

1. The designated ETS team will review all responses flagged as possible crisis papers and will make the final decision on actual alerts.

2. ETS will communicate to appropriate personnel at the LEA for each crisis paper involving students in that LEA. In addition to telephone and email contacts, ETS will send descriptions of the crisis paper(s) via overnight mail using a traceable method.

Condition Codes for Human-scored Responses

ETS will assign student responses a score or a condition code according to the final set of scoring specifications developed in conjunction with the CDE. Smarter Balanced already has assigned a set of condition codes that ETS proposes to use with approval of the CDE. Similar condition codes can be made available for all CAASPP and ELPAC assessments which utilize human-scored responses. ETS will assign scores as requested by the CDE and include scores of zero in the computed statistics.

ETS will verify blank responses for either the multiple-choice or constructed-response items as a routine step in the scoring process. Additionally, ETS will visually check

returned paper materials for any separate papers that many contain student written responses.

Reporting

ETS's online scoring system provides on-demand reports on scoring activities. The CDE will be able to view both aggregate scoring statistics for the entire pool of raters as well as individual raters in real-time.

The scoring system offers many data elements, such as:

- total number of responses for responses read

- hourly rate of responses read

- mean score awarded overall

- percentage of scores awarded at each score point

- number and percentage of exact agreement scores

- number and percentage of adjacent scores

- number and percentage of non-adjacent scores

- number and percentage of responses deferred

- rater performance statistics

- rater productivity metrics

Scoring Student Responses with Artificial Intelligence (AI)

ETS will deliver AI scoring technologies that meet the demand for student reports and scoring data that is not only fast and efficient, but that also meets the rigorous standards of validity and reliability necessary for large-scale state assessments. ETS will follow the same considerations for teacher scoring and professional development as outlined in the Scoring Plan.

The scope for both the Smarter Balanced and CAST components includes the following:

- initial AI scoring model building and evaluation for CR items or PTs

- operational deployment of AI scoring models for CR items or PTs

- periodic operational quality control for monitoring AI scoring model performance for CR items or PTs

- development of an annual client memorandum that document AI model development, deployment, and performance

ETS may investigate AI scoring options for Summative ELPAC and will propose solutions for CDE consideration through the established Change Management process described in Task 1.1.

Timeline for Model Building, Evaluation, and Deployment

For Smarter Balanced items, ETS will utilize AI scoring and incorporate both ETS and MI engines for scoring in a complementary fashion.

For CAST items, ETS will conduct AI-scoring model building and evaluation after each administration and upon the approval of the CDE.

ETS will use a broad range of evaluation criteria during model development, which consider statistical performance criteria as well as construct-representation considerations, to compare the performance of candidate models.

ETS will conduct ongoing quality-control (QC) efforts to monitor the performance of the AI scoring models during deployment. Therefore, if the structure of the student (sub-) populations and their associated performance characteristics change significantly, ETS will be able to detect and recalibrate the scoring models in time for future administrations.

Long-term Collaboration Model

ETS will consult with the CDE in the longer-term development and deployment of novel AI models. ETS will utilize existing and emerging capabilities to produce statistically reliable, substantively defensible, and practically useful automated scores for an increasing number of items over the years.

8.1.B Assessments with Local Scoring

The following sections describe the local scoring of Smarter Balanced Interim Assessments, Initial ELPAC PPT, Initial ELPAC RSVP scoring by ETS, and the Initial ELPAC CBA.

8.1.B.1. Smarter Balanced Interim Assessment Scoring

ETS will deliver the interim assessments through the same test delivery system as the summative assessments. ETS will meet all the mandatory requirements in the same way as is done in the summative assessment.

This system will provide the same features available on the summative assessments, assuming Smarter Balanced provides the same content supports (e.g., alternate language glossaries) that it will provide for the operational summative assessment.

The test delivery system has an automated routing feature that sends items that require human scoring to a designated scoring system. Local scoring occurs through the Teacher Hand Scoring System (THSS), which routes student responses to performance items back to the local test administrator for scoring or further routing.

Local Scoring of the Smarter Balanced Interim Assessments

The test delivery system will route student responses available for local scoring based on the assessment type. The teacher scoring system allows teachers to score any student responses requiring hand-scoring administered as part of the interim assessments, including extended responses and writing essays. Hand-scoring via the THSS differs significantly from the hand-scoring procedures described for the summative assessments. First, the summative assessment procedures route student responses randomly to trained professional raters. Second, they typically require additional read behind requirements. Third, those procedures typically route validation papers through the scoring queue to monitor scoring behavior.

Student responses for hand-scored items on the interim assessments will flow into the THSS in near real-time after a student completes and submits an online test. Scoring rubrics, exemplar responses, and anchor papers for each item will be accessible in the THSS by the teacher. In the event the teacher needs to transfer his or her queue, the teacher or a higher-level authority (e.g., a principal) is able to assign student responses to other raters.

Once teachers submit scores to the THSS, student scored responses are routed to the scoring system. The scoring system merges human scores with machine scores and sends the complete test result through the Quality Monitor (QM) that checks for scoring anomalies. Results then transfer to ETS for routing to the California Educator Reporting System (CERS). The Database of Record (DoR) maintains the authoritative record of tests administered and completed.

Based on a mutually agreed upon schedule with the CDE, ETS will offer a fee-based ancillary service to the LEAs to score their Interim Assessment student responses.

Training Local Raters to Score Interim Assessments

ETS will provide training materials that will guide teachers through the process, including accessing the THSS, retrieving student responses for scoring, training and refreshing on scoring rubrics and exemplar responses, and entering scores into the system for reporting.

Teachers will be able to train to use the THSS using a combination of training materials:

- a detailed user guide on the THSS that includes screenshots and step-by-step instructions on how to use the THSS, how to complete critical tasks in the THSS, and how to address common issues encountered in the system

- training of LEA-based trainers in the scoring of student responses to constructed-response and performance task items

User Guide for THSS

The purpose of the user guide for the THSS is to train users on the system functionality. ETS will work closely with the CDE to confirm that the user guide clearly explains all relevant functions. The user guide will be available in PDF format for users to retrieve from a designated location on http://www.caaspp.org/.

Scoring Training

In addition to the user guide, ETS will develop a training presentation for teachers and schools to learn how to score students' responses.

Additional Training

ETS will consult with the CDE to design and implement additional training for teacher scoring. Task 2 provides additional information on the training and supports for the interim assessments. Should additional training for teacher scoring be identified beyond what has been agreed to in this Scope of Work, ETS will provide a cost estimate to the CDE.

8.1.B.2. Initial ELPAC PPT Local Scoring

The test examiner will manually score all test items of the Initial ELPAC PPT. A local scoring guide is included in each Initial ELPAC Examiner's Manual that provides scoring keys, overlays, rubrics, and anchor samples to score the Initial ELPAC PPT. Conversion tables and a preliminary score sheet are available for access in TOMS and can be used to hand-calculate the preliminary overall scale score and performance level.

Once local scoring is complete, each LEA enters the student task-level raw scores for each domain into the Local Scoring Tool (LST) which will then produce the official test level score for the initial assessment. The LST only allows a single score per SSID to be entered and requires students' current or future enrollment to be available in CALPADS. TOMS maintains the record of test scores entered and locked in the LST.

All LEAs identified to participate in the RSVP will be required to return their locally-scored answer books to ETS monthly after entering raw scores on the LST and sending parent/guardian notification letters. Once answer books are received at ETS, the scoring process begins. ETS will score the Reading, Listening, and Writing domains; and the Speaking domain local scores will be captured.

ETS will provide the CDE and RSVP LEAs with a comparison report that compares data fields on the LST- versus ETS-scored fields based upon an approved schedule. Although this comparison will not alter the official scores produced by the LST, it can provide information to the LEA about potential need for additional training of LEA staff

who work on scoring Initial ELPAC and entering scores on the LST. Figure 11 follows the scoring and reporting flow for the Initial ELPAC PPT using LST.

Figure 11. Initial ELPAC PPT Using LST (locally scored)—Scoring and Reporting Flow

School paper-based testing completes → Test examiner or teacher perform local scoring using local scoring guide → Authorized users enter raw scores for each domain in Local Scoring Tool (LST) → LST calculates final scoring and SSR reporting → SSRs are available online for districts to download and print from LST
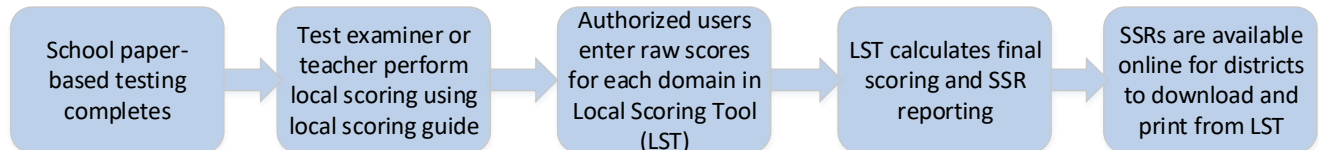
8.1.B.3. Initial ELPAC CBA Local Scoring

ETS will deliver the Initial ELPAC assessments through the same test delivery system as the summative assessments. ETS will meet all the agreed upon requirements in the same way as is done in the Summative ELPAC assessment.

This system, the California Assessment Delivery System, will provide the same features available on the Summative ELPAC assessments, including accommodations, universal supports, and designated supports. The system will also support domain-level exemption for the ELPAC.

ETS will use the THSS module for the Initial ELPAC assessment to support local scoring of written responses, which will allow the ELPAC test examiner or administrator to score responses at a later time. The test delivery system will route writing item responses that require human scoring to a user who is responsible for scoring and will make those responses available in the THSS. Local scoring of the Speaking domain will happen in the moment during individual administration.

Local Scoring

The THSS allows teachers to score Writing sections requiring hand-scoring that were administered as part of the Initial ELPAC.

Spoken responses will be captured by the system and scored by the test examiner in the moment during individual administration. Written responses for grades three through twelve will be captured and scored by the test examiner; and kindergarten through grade 2 written responses will be captured on paper during administration with the score captured via notes, which will be subsequently entered by the test examiner through the THSS module. Initial Alternate ELPAC CBA scoring will be performed during test administration; ETS does not plan to use the THSS module for the Alternate ELPAC CBA.

Scoring rubrics, exemplar responses, and anchor papers for each item will be accessible to the test examiner in the THSS and the Test Examiner's Manual. In the

event the teacher needs to transfer his or her queue, the test examiner or a higher-level authority (e.g., a site coordinator) will be able to assign student responses to other trained test examiners.

Once test examiners submit Speaking and Writing scores, student responses and scores will be transmitted to the scoring system. The scoring system will then merge human scores with machine scores for the Reading and Listening sections and then send the complete final scored test result through the Quality Monitor (QM) to check for scoring anomalies. The Initial ELPAC official score reports will be made available to the LEAs in near real-time after hand-scoring is completed in the THSS. The results will be available as an electronic score report and as scores posted to the educator reporting system. The Database of Record (DoR) maintains the authoritative record of tests administered and completed. End-of-year test results will be available to the LEAs and the CDE.

Training Local Raters to Score Initial ELPAC CBA

Initial ELPAC CBA rater training will follow the process described in Task 8.1.B.1 Smarter Balanced Interim Assessment Scoring.

8.1.B.4. Summative ELPAC CBA Local Scoring for Speaking

Spoken responses will be captured by the system and scored by the test examiner during individual administrations.

Scoring rubrics, exemplar responses, and anchor papers for each Speaking item will be accessible to the test examiner electronically via TOMS. In the event the test examiner needs to transfer his or her queue, the test examiner or a higher-level authority (e.g., a site coordinator) will be able to assign student responses to other trained test examiners.

Once test examiners submit Speaking scores, student responses and scores will be transmitted to the scoring system. The scoring system will then merge human scores with machine scores for the Reading and Listening sections and then send the complete final scored test result through the Quality Monitor (QM) to check for scoring anomalies before producing the final Summative ELPAC test results.

Training Local Raters to Score Summative ELPAC CBA

Summative ELPAC CBA rater training will follow the process described in Task 8.1.B.1 Smarter Balanced Interim Assessment Scoring.

8.1.C. Cumulative Scores

ETS's enterprise scoring platform will coordinate all scoring. The scoring platform will integrate both objective item scores and constructed-response item ratings to produce final cumulative score data, which can be scaled or converted as needed. Custom

quality control processes, will be based on the Statistical Analysis System® (SAS), verify that score data meet ETS data quality requirements.

Student Database of Record

ETS will maintain a student database that houses all student biographical, demographic, and assessment results. The database will be of sufficient size and scope to accommodate the entire California suite of assessment programs. Information associated with each student has a database relationship to the LEA, school, and teacher/class codes as ETS collects the data during the operational chain of events.

For the Statewide Student Identification (SSID) number, ETS assumes that the CDE-issued SSID number provided in CALPADS will serve as the unique student identifier. ETS will maintain the SSID for all records produced throughout the life of the contract. ETS will provide the CDE with a list of SSIDs that require resolution (e.g., duplicate SSIDs for different students, incomplete or missing SSIDs, retired SSIDs).

8.2. Analysis of Test Results

ETS will use commercially available software for all statistical analyses. In particular, ETS will use the SAS to develop an open-source solution to support item analyses and differential item functioning (DIF) analyses, scoring, and any statistical and psychometric analysis for technical reports, research studies, and any data analysis based on the CDE's requests. For item response theory (IRT) calibration, ETS will use a commercially available version of FLEXMIRT or an equivalent version (e.g., PARSCALE, BMIRT); and, if needed, ETS will use STUIRT for equating and scaling.

Final scores. The test delivery system will deliver all computer-delivered assessments. The ETS scoring system will create a record for each test taker. For each test response submission, the system will receive all machine-scored item scores and hold them in the record along with the number of constructed responses pending hand scoring. When the system receives constructed-response scores, it will update the student record. Once all components (e.g., hand-scored responses, machine-scored responses, different segments or parts of an overall test) of the test that contribute to a student's testing record are final, scoring is invoked and all required test scores (i.e., overall and claims) are calculated. For the Smarter Balanced assessment, ETS will base all scaled scores produced on the maximum likelihood estimation (MLE) approach. For the CAA for ELA and mathematics, CAST, CSA, and Initial and Summative ELPAC assessments, ETS will base all scaled scores produced on the test characteristic curve (TCC) method. For the CAA for Science and Alternate ELPAC CBA assessments, scaled scores used for summary reporting will be based on the most appropriate method that is mutually agreed upon by the CDE and ETS pending the findings from the field test analyses. For assessments in development as well as assessments that do not rely on IRT, ETS will base all scale scores produced on the most psychometrically defensible method that is also agreed upon by the CDE. Once all required scores are

calculated, ETS will send the scored test record to the quality validation system. Once this is complete, ETS's Statistical Analysis Group will receive a data extract to verify the scoring. ETS will sign off on the release of scores into downstream systems.

For the paper-pencil Summative and Initial ELPAC, CAST, and Smarter Balanced Summative Assessments, ETS will use ETS systems for scoring and other psychometric analysis. As with computer-based assessments, once scoring and validation is complete, ETS's Statistical Analysis Group will analyze scores and release them for downstream reporting.

Growth model calculations. ETS assumes that the Board will approve one of the three growth model simulations to be presented by the CDE in early 2018. ETS will perform the calculations for the Board-approved growth model and will include the results in the data files provided to the CDE, as described in Task 9.3. ETS will continue to perform calculations in support of the CDE's ongoing analysis work in this area and will deliver a standalone data file with the requested growth model calculations.

Routine procedures. ETS will perform data cleaning, item analyses, DIF analyses on embedded field test items administered on new test forms in addition to conducting DIF for newly developed assessments (i.e., all non-Smarter Balanced tests and the Summative, Initial, and Alternate ELPAC CBA), IRT calibration for new test form versions as well as for newly developed assessments (i.e., all of ELPAC, Alternate ELPAC CBA [if applicable], and all non-Smarter Balanced tests excluding CAA Science), and scaling and equating for new test versions and newly developed assessments prior to producing scoring tables. For each of these steps in the process, two psychometricians and two data analysts will independently review the results using a psychometric procedure checklist. For newly developed forms that require scaling and equating, ETS will conduct a final executive review after the psychometric and data analysis team has verified the analyses. This final review will involve the psychometric director and senior psychometric advisors who have extensive operational and theoretical psychometric experience. They will provide an independent evaluation of the psychometric analyses and determine whether all results are technically defensible. After securing final approval in the executive review, ETS will share results with the CDE for final approval before producing the scoring tables. ETS will thoroughly review these scoring tables as a quality step before passing them on to downstream systems for scoring and reporting.

Audit procedures. ETS will use both the ETS internal audit process and detailed documentation of each assessment to evaluate the assessments and assessment system. ETS performs an audit of its testing programs at least once every three years as described in Task 4, and ETS will report the audit results of the tests in the CAASPP to the CDE. The ETS Office of Corporate Quality Assurance (OCQA) will be responsible for conducting these audits.

Performance tracking. For each assessment, regardless of whether or not there is new test development, ETS will track performance over time, focusing specifically over the years on scaled score means, scaled score standard deviations, and percentage of students meeting each performance level both for the overall population as well as for each subgroup. In addition, within each year, in the event of an administration of multiple test forms within a grade level, ETS will evaluate whether the scores and psychometric properties (e.g., reliability) were comparable. In instances where unusual performance patterns appear, ETS will communicate these issues with the CDE and provide recommendations for resolving them.

New assessments. For assessments with new test development, ETS will develop psychometric criteria to support new test form construction based on results from field test studies or information from well-established item pools. Specifically, ETS will establish target test characteristic curves, targeted difficulty, and targeted discrimination levels in order to achieve parallel forms. In terms of the psychometric process, ETS will document all psychometric characteristics of all test forms developed. Particularly, ETS will document test form difficulty (based on IRT), characteristics of the populations when the form was created and scaled (e.g., demographics, average test performance, percentage of examinees at each performance level), linking coefficients used to scale new test to base scale, and final conversion tables. ETS will compare the documentation associated with the newly developed test forms against documentation from prior versions of a particular assessment to evaluate the coherence of all forms constructed. If any new form created deviates from historical psychometric characteristics, then ETS will perform additional analyses to identify potential causes. ETS will share the results of such analyses with the CDE.

Technical report. ETS will develop a technical report, summarizing the entire end-to-end process, to provide the technical evidence of the quality and overall performance of each assessment and areas for monitoring and continuous improvement. The key components of the assessment include test design, test development and form assembly, test administration, scoring and reporting, calibration, equating and scaling, standard setting, scoring reliability and validity, quality control procedures, areas of continuous improvement, and historical comparisons and special studies.

ETS will readily provide further data analyses in order to confirm the validity of test scores, federal peer review, programmatic review, program evaluation, or any additional inquiries regarding the operation of the California Assessment System.

8.2.A. Item, Calibration, Scaling, and Test Analyses

Smarter Balanced Assessments

The Smarter Balanced Consortium will analyze the Smarter Balanced Assessments. ETS will fully cooperate with the development of appropriate reports, and ETS psychometricians will document relevant technical information to provide the CDE with

additional information and analyses, as necessary, for the maintenance of the Smarter Balanced ELA and mathematics assessments.

CAAs, CAST, CSA, Summative and Initial ELPAC PPTs, Summative and Initial ELPAC CBAs, and Alternate ELPAC CBA

For each item appearing on these tests, ETS will provide the following information:

- the proportion of examinees selecting the correct response

- average item score used to measure item difficulty

- point-biserial, biserial and polyserial correlation coefficients used to measure item discrimination

- proportion of examinees selecting the correct response for selected-response items

- proportion of examinees receiving full and partial credit for polytomously scored items

- the most frequently observed response for technology-enhanced, innovative, and selected-response items when applicable

- the IRT model parameter estimates

- the IRT item fit statistics for each item

- plots of item difficulties (as measured by the b parameter) estimated in prior test administration

For each test appearing on these testing programs, ETS will provide the following information:

- test characteristic curve

- scaling constants

- items removed from the equating set during the scaling process and corresponding anchor stability statistics

- raw score to scale score conversion tables with frequencies and the associated conditional standard errors of measurement for each raw score

- measures of reliability for all reportable scores for all students and by student groups and by accommodated and non-accommodated assessments

- measure of overall human and automated scoring quality where applicable

- for initial ELPAC RSVP sample, a report describing the discrepancy between local and ETS centralized scores provided at the LEA level

Upon processing and scoring of the student responses during the first operational year of the ELPAC CBA and the Alternate ELPAC CBA, ETS will conduct the item analysis. The item analyses compute important statistics for every item of the test. The statistics provide key information about the quality of each item from an empirical perspective.

ETS will provide the following information where appropriate:

- average item score used to measure item difficulty

- point-biserial, biserial and polyserial correlation coefficients used to measure item discrimination

- proportion of examinees selecting the correct response for selected-response items

- proportion of examinees receiving full and partial credit for polytomously scored items

- the most frequently observed response for technology-enhanced, innovative, and selected-response items

- IRT model parameter estimates

- IRT item fit statistics for each item

- test characteristic curve

- raw score to scale score conversion tables with frequencies and the associated conditional standard errors of measurement for each raw score

- measures of reliability for all reportable scores

- measures of overall human and automated scoring quality when applicable

In the second operational year, ETS will add the following information where appropriate:

- plot of item difficulties and discriminations (as measured by the a and b parameters) estimated in prior administrations, and the parameters estimated in the current administration

- scaling constants

- items removed from the equating set during the scaling process and corresponding anchor stability statistics

- raw score to scale score conversion tables with frequencies and the associated conditional standard errors of measurement for each raw score

- measures of reliability for all reportable scores

Summary Analyses

ETS will provide the CDE with summary analyses at the end of each test administration. The purpose of the summary analyses is to provide the CDE with a preliminary summary of the statewide test results. Typical summary analyses include percent at proficient or above, mean scale scores, and comparisons to selected LEAs. By May annually, ETS will work with the CDE to agree upon the summary analyses that will be provided for CAASPP and for ELPAC respectively.

8.2.B. Summary Analysis

ETS will produce analyses that provide summary evidence of test score accuracy and validity and help in interpreting and understanding scores, changes in scores, and trends in scores over time. ETS will conduct analyses specific to summarizing the performance of the students taking each assessment and the psychometric qualities of each assessment. In addition, each spring of every administration year, ETS will coordinate with the CDE in defining the scope of a special set of summary analyses for CAASPP and ELPAC assessments.

The California Assessment System includes online, as well as both linear and adaptive, assessments. For all assessments, ETS will provide distributions of tests scores by grade and subgroup within grade, descriptive statistics concerning test scores, and where applicable, descriptive statistics for performance task scores and subscores where possible. In addition, for each assessment, ETS will provide the test characteristic curve, the overall test score reliability, overall and conditional standard errors of measurement, and, where applicable, decision accuracy and decision consistency estimates. At the item level, ETS will summarize item difficulty and item discrimination measures for both CR and SR item types. For online assessments, ETS will also provide the distribution of the time to complete the assessment, as well as descriptive statistics summarizing the time to complete the assessment. For tests that may have variable-length assessments, ETS will provide the distribution of the number of items administered, as well as descriptive statistics summarizing the number of items administered to each student. For CR items, ETS will summarize reader reliability information and provide information concerning the degree of relationship among CR items and, where applicable, the relationship between CR and SR scores.

Smarter Balanced

ETS assumes that the CDE will rely on the analyses conducted by Smarter Balanced for the Smarter Balanced Summative Assessments and no additional activities will be planned for the analysis of Smarter Balanced data except for the purposes of special studies approved by the CDE. ETS will produce analyses that provide summary

evidence of the accuracy and validity of the test administration system and score production.

CAAs, CAST, CSA, Summative and Initial ELPAC PPTs, ELPAC CBA and PPT, and Alternate ELPAC CBA

The long-term test designs for the newly launched assessments will either be linear or utilize an MST model. For MST designs, ETS will begin with a linear assessment and transition to an MST by the second operational year, provided that the item pool is sufficient to support it.

Regardless of whether ETS implements a linear test or launches a linear test that transitions to MST, ETS will provide distributions of test scores by grade and subgroup within grade and descriptive statistics concerning test scores. These tables will group students by demographic characteristics such as gender, ethnicity, English-language fluency, need for special education services, and economic status. For each demographic group, the tables will show the number of valid cases, scale score means, standard deviations, minimums, maximums, and the percentages of students in each performance level. In addition, where applicable, ETS will analyze student performance based on their prior scores, analyze trends in performance of student groups, and conduct gap analyses.

ETS will provide the test characteristic curve, the overall test score reliability, and overall and conditional standard errors of measurement (CSEM). At the item level, ETS will summarize item difficulty and item discrimination measures for both CR and SR item types. The estimation procedures used for statistics such as CSEM will depend on whether the assessment uses a linear or MST design. ETS will also provide the distribution of the time to complete the assessment, as well as descriptive statistics summarizing the time to complete the assessment. If the assessments follow the MST model and the results have variable-length assessment, ETS will provide the distribution of the number of items administered, as well as descriptive statistics summarizing the number of items administered to each student. For SR items, ETS will summarize reader reliability information and provide information concerning the degree of relationship among CR items. For an MST, ETS would provide routing rates, ranges of scores for each route, and IRT parameter levels by each route.

ETS will conduct DIF analyses as part of the item development process in which the items are identified as potentially biased in the item bank and not ready for operational use.

For MST, ETS will conduct extensive monitoring and quality control analyses. ETS will concentrate on the characteristics of the MST panels developed to measure whether earlier panels obtained similar measurement outcomes and whether ETS should adjust to the initial assembly configuration implemented to optimize the routing rates.

8.2.C. Replication of Analyses

ETS will work with the CDE and, when appropriate as directed by the CDE, with the CAASPP external independent evaluator to determine the format and the layout of the student-level data files. Also, ETS will have psychometricians, data analysts, assessment developers, and IT professionals available to answer questions on the statistical and content properties of the items as well as any technical questions concerning the data structure.

CAASPP Summative Assessments

The student data for replication will provide all student demographic information, including level of student support or accommodation. ETS will provide all test level scores, including raw scores, cluster scores claim level scores, and all scaled scores. The student-level data file will also contain all item responses for SR items, all scores for performance task items, and all associated item identifiers. In addition, ETS will provide the latency between items and the time to answer each item.

ETS will supply the CDE and the CAASPP external independent evaluator with the entire vector of CAASPP student-level information for each student, including identification of any accommodations the student used. If there is any information that the CDE believes is not necessary in the replication of item statistics and test characteristics, ETS will create and send an abridged file to the CDE and the CAASPP external independent evaluator. In addition, should the CDE require additional documentation to assist in replications, then ETS will provide any supplemental information needed.

Smarter Balanced Assessment Analyses

Annually in late August, ETS will produce complete electronic files containing interim assessment information for the administration year based on the students enrolled in CALPADS or available in the CERS at the time of the data pull. The files will contain the number of tests started and completed in the test delivery system at the LEA and school level, and will include a breakdown of the specific tests administered. As a result, ETS will be able to provide the CDE with a comprehensive report documenting the usage of the computer-based interim assessments.

The report will include:

- overall utilization rates by grade and subject

- overall utilization rates by subject and grade by LEA and school

- tables providing interim assessment usage over the course of the school year

These tables will also include summary statistics on how many students took each assessment multiple times.

TASK 9: Reporting

ETS will deliver a full range of reports and reporting formats that the CDE requires for the California Assessment System, which will include merging results from both paper-pencil formats and computer-based tests. ETS will make reports available electronically, and via paper if requested by LEAs. ETS will adhere to the CDE IPO security guidelines for managing and rotating user credentials, data confidentiality, and ease of use for CDE-approved users.

ETS will use the AIR Online Reporting System (ORS) and will work with Smarter Balanced and the CDE to transition to the California Educator Reporting System (CERS) solution to report secure student test results for each of the operational summative assessments—Smarter Balanced, CAAs (ELA mathematics, and Science), CAST, CSA, Summative ELPAC, and Summative Alternate ELPAC CBA. ETS will work with Smarter Balanced and the CDE to continue to improve the CERS annually based on user feedback from the previous administration. ETS also will continue to utilize the CERS to report student test results for the Smarter Balanced Interim Assessments.

ETS will continue to use TOMS to provide student score reports and Parent/Guardian letter for the Initial ELPAC CBA and PPT and the Initial Alternate ELPAC CBA. Student score reports and results for all assessments will be available in TOMS to both the tested LEA and the LEA where the student is currently enrolled.

Table 29 provides a high-level timeline for reporting test results by assessment.

Annually, ETS will develop overall reporting specifications collaboratively with the CDE to document the steps and business rules used for reporting CAASPP and ELPAC test results. ETS will conduct an in-person intake meeting with the CDE annually in coordination with the planning meetings described in Task 1.4.

ETS will submit the reporting specifications for the next administration year by September 30th for CAASPP and February 28th for ELPAC annually for CDE review and approval following the processes outlined in Task 1.9. ETS will make annual updates to reflect changes required by the testing regulations or planned work communicated by the CDE.

Table 29. High-level Timeline for Reporting Test Results, by Assessment

Assessment	2018–19 Administration	2019–20 Administration	2020–21 Administration	2021–22 Administration
Smarter Balanced Interim Assessments	Yes	Yes	Yes	Yes
Smarter Balanced Summative Assessments	Yes	Yes	Yes	Yes
CAA for ELA and Mathematics	Yes	Yes	Yes	Yes
CAST	Yes	Yes	Yes	Yes
CAA for Science	Yes*	Yes	Yes	Yes
CSA	Yes	Yes	Yes	Yes
Summative ELPAC Paper-pencil	Yes	N/A	N/A	N/A
Summative ELPAC CBA	N/A	Yes	Yes	Yes

* ETS will be reporting preliminary indicators for CAA for Science for the field test year.

Initial ELPAC Analyses

The CDE has divided LEAs across California into four groups (i.e., the RSVP sample) to rescore initial test results through ETS's scoring processes and to provide a report to the CDE that identifies scoring discrepancies between LEA and ETS scoring outcomes. During the 2018–19 and 2019–20 paper-pencil administrations, the four RSVP samples will take turns each year in returning their answer books for paper-based assessments. When the Initial ELPAC CBA becomes operational, ETS will sample computer-based test results based on what was received from the TDS for centralized scoring to monitor the accuracy and validity of the locally derived scores. All domains where responses are captured will be scored at ETS. Statistical analyses will be conducted using the item responses received from the RSVP LEAs to validate the pre-equated item statistics and develop technical documentation for the Initial ELPAC. The results from ETS scoring will be compared to scores reported to the LEAs. The result of the comparison will be used to inform training for local scoring and to confirm score accuracy and validity.

9.1. Reporting to Local Educational Agencies

ETS will implement the comprehensive and secure ORS for interactive reporting to allow users to view Smarter Balanced Summative Assessments, CAAs, CAST, and CSA reports at the LEA, school, and student level until the transition to the CERS. The Summative and Initial ELPAC CBA and the Alternate ELPAC CBA will not be reported into ORS.

ETS will deliver reports in both PDF and Microsoft Excel (CSV) formats for convenience and flexibility in printing and sharing. ETS will send documents to email addresses as determined by the LEA CAASPP or ELPAC Coordinator or the CDE.

California Educator Reporting System (CERS)

ETS will consult with the CDE on the expansion of reports listed in Table 29 to support additional summative, interim, and formative reporting needs. Currently, the AIR ORS will report test results only for the Smarter Balanced Summative Assessments, CAAs, CAST, and CSA. During the terms of this contract, ETS will work with the CDE and, at CDE direction, with Smarter Balanced to transition online reporting to the new CERS once operational. ETS understands that the CERS will be developed and hosted by Smarter Balanced for the CDE through an interagency Agreement that is outside of this contract. ETS assumes that the CERS will have the capacity to report the CAASPP and Summative ELPAC and Alternate Summative ELPAC results for educator use. Reports for the interim assessments will continue to occur through the CERS (formerly referred to as the Smarter Balanced Data Warehouse). As the CDE develops it future technology plans for the online assessments, ETS will assist the CDE in exploring options available to continue the evolution of the California Assessment System.

Requirements for Reporting to LEAs

ETS will follow the reporting requirements as outlined in *EC* Section 60643. ETS's system for reporting results to LEAs will include the following features:

- integration of student demographic data from CALPADS with student test results from the assessments

- online completion reports for students taking the computer-based summative assessments, with completion reports available at the school and LEA level

- online student rosters with test results by grade level for each school and LEA, where the LEA may print or download student rosters locally through the CERS

- online individual student results for all CAASPP, ELPAC, and Alternate ELPAC CBA assessments that each LEA may print or download locally

- provide additional student results for the Smarter Balanced Summative Assessments, including scores for the claims, target, and writing extended response (WER) dimensions, in ORS and, when available, in the CERS

- provide additional student results for Summative ELPAC, including scale scores, performance levels for the oral and written languages, and performance levels for all domains

- provide additional student results for Initial ELPAC, including performance levels for the oral and written languages

- provide an online report for each LEA of high school students who took the science test in prior years; this report may include the tested location, tested date, assessed grade, and any parent guardian exemption

- provide an online report of English learners who meet the exemption criteria for the Smarter Balanced ELA and CAA ELA assessments and by domain exemptions for ELPAC CBA (Initial and Summative) and Alternate ELPAC CBA (Initial and Summative), which will provide test coordinators more specific information on the tests that their students may need to take

Table 30 describes the test results provided to LEAs by type of report, test, timeframe, and mode of delivery for each of the assessments. For clarity, the operational summative assessments to be delivered within the terms of this contract include Smarter Balanced Summative Assessments for ELA and mathematics, Summative ELPAC, CAA for ELA and mathematics, CAST, CAA for Science, CSA, and Summative Alternate ELPAC CBA. The timeframes provided in Table 31, Table 32, and Table 33 will be in effect after ETS receives the CDE approval to release reports.

Table 30. CAASPP and ELPAC Test Results Provided to LEAs

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
CAASPP	All CAASPP online assessments	Electronic Student Score Reports	Within three weeks after the student has completed all components of the assessment for the last content area	Parent and guardians, students	Via an application programming interface (API) to LEAs or their authorized vendors. API interface accepts filtering criteria that provides SSRs of specific type, language or a particular administration year. The LEA will determine additional local access through their local student information system (SIS).
CAASPP	Paper tests (Smarter Balanced Summative ELA and mathematics, CAST)	Electronic Student Score Reports	Within six weeks after the student has completed all components of the assessment for the last content area	Parent and guardians, students	Via an application programming interface (API) to LEAs or their authorized vendors. API interface accepts filtering criteria that provides SSRs of specific type, language or a particular administration year. The LEA will determine additional local access through their local student information system (SIS).

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Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
CAASPP	All assessments	LEA Student Data (Download-able) File	Determined by the CDE and ETS after the end of the statewide testing window and prior to the statewide release of test results in the Public Web Reporting site.	LEA and site coordinators	TOMS
CAASPP	All assessments	Secure LEA-created roster-based aggregate reports, based on the data available and as the CDE allows	Aggregate results for a school or LEA will be available once individual student test results are posted. Authorized users have ability to create rosters to view aggregate results based on data available.	LEA and site coordinators, educators	California Educator Reporting System (Note: Test results will be available in the AIR Online Reporting System until Smarter Balanced implements the California Educator Reporting System.)
CAASPP	All online assessments	Student Score Reports (PDFs)	Within three weeks after the student has completed all components of the assessment for the last content area	Parent and guardians, students	LEA and Site Coordinators have access through TOMS. May be printed locally by the school or LEA. Translated versions of SSRs will be electronically available in TOMS.

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
CAASPP	Paper tests (Smarter Balanced Summative ELA and mathematics, CAST)	Student Score Reports (PDFs)	Within six weeks after the student has completed all components of the assessment for the last content area	Parent and guardians, students	LEA and Site Coordinators have access through TOMS. May be printed locally by the school or LEA. Translated versions of SSRs will be electronically available in TOMS.
CAASPP	All CAASPP assessments	Aggregate results, including Smarter Balanced target scores, by student demographic groups	Aggregate results for a school or LEA will be available once individual test results are posted after validation. Aggregate calculations will be refreshed nightly. This includes target aggregate reports for online summative Smarter Balanced ELA and mathematics assessments only.	LEA and site coordinators, educators	California Educator Reporting System

(Note: Test results will be available in the AIR Online Reporting System until Smarter Balanced implements the California Educator Reporting System.) |

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Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
CAASPP	All CAASPP online assessments	Individual student results by content area for each test taken	Two to three weeks after the student has completed all components of the assessment for that content area and scores are merged	LEA and site coordinators, educators	California Educator Reporting System (Note: Test results will be available in the AIR Online Reporting System until Smarter Balanced implements the California Educator Reporting System.)
CAASPP	Paper-pencil tests (Smarter Balanced Summative ELA, Smarter Balanced Summative mathematics, CAST)	Individual student results by content area for each test taken	Within six weeks after the scoring center receives a complete, clean set of answer documents for processing and scoring and after receipt of the Smarter Balanced score keys and conversion tables	LEA and site coordinators, educators	California Educator Reporting System (Note: Test results will be available in the AIR Online Reporting System until Smarter Balanced implements the California Educator Reporting System.)

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
CAASPP	Smarter Balanced Summative ELA	Writing Extended Response (WER) dimension scores for operational and embedded field test questions administered in the administration	As approved by the CDE	Users authorized by the LEA coordinator	California Educator Reporting System (Note: Test results will be available in the AIR Online Reporting System until Smarter Balanced implements the California Educator Reporting System.)
ELPAC	All assessments	Secure LEA-created roster-based aggregate reports, based on the data available and as the CDE allows	Aggregate results for a school or LEA will be available once individual student test results are posted. Authorized users have ability to create rosters to view aggregate results based on data available.	LEA and site coordinators, educators	California Educator Reporting System

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
ELPAC	Initial ELPAC (CBA and PPT), Initial Alternate ELPAC CBA	Electronic Student Score Reports	Near real-time after scoring of all domains has completed for CBA	Parent and guardians, students	Via an application programming interface (API) to LEAs or their authorized vendors. API interface accepts filtering criteria that provides SSRs of specific type, language or a particular administration year. The LEA will determine additional local access through their local student information system.
ELPAC	Initial ELPAC (CBA and PPT), Initial Alternate ELPAC CBA	LEA Student Data (Download-able) File	Determined by the CDE and ETS after the end of the statewide testing window and prior to the statewide release of test results in the Public Web Reporting site.	LEA and site coordinators	TOMS

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
ELPAC	Initial ELPAC (CBA and PPT), Initial Alternate ELPAC CBA	Student Score Reports (PDFs)	For the Initial ELPAC PPT, same day after the authorized LST users enters and locks score in LST

For Initial ELPAC CBA and Initial Alternate ELPAC CBA, near real-time after scoring for all domains has completed. | Parent and guardians, students | LEA and Site Coordinators have access through TOMS. May be printed locally by the school or LEA. Translated versions of SSRs will be electronically available in TOMS. |
ELPAC	Initial ELPAC PPT	Individual student results	After the authorized LST user enters and locks score in LST.	LEA and Site Coordinators, educators	TOMS
ELPAC	Summative Alternate ELPAC CBA (2020–21 only)	Individual student results	Following approval of score thresholds in summer/fall 2021	LEA and site coordinators, educators	To be determined based on the Smarter Balanced implementation timeline for the California Educator Reporting System
ELPAC	Summative Alternate ELPAC CBA (2021–22)	Individual student results	Within four after the student has completed all domains/component of the assessment	LEA and site coordinators, educators	To be determined based on the Smarter Balanced implementation timeline for the California Educator Reporting System

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
ELPAC	Summative ELPAC (CBA and PPT), Summative Alternate ELPAC CBA	Electronic Student Score Reports	For the CBA, within four weeks after the student has completed all domains/component For the Summative ELPAC PPT only, within six to eight weeks after the scoring center receives a complete, clean set of answer documents for processing and scoring for PPT	Parent and guardians, students	Via an application programming interface (API) to LEAs or their authorized vendors. API interface accepts filtering criteria that provides SSRs of specific type, language or a particular administration year. The LEA will determine additional local access through their local student information system.

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
ELPAC	Summative ELPAC (CBA and PPT), Summative Alternate ELPAC CBA	Student Score Reports (PDFs)	For the CBA, within four weeks after the student has completed all domains/component For the Summative ELPAC PPT only, within six to eight weeks after the scoring center receives a complete, clean set of answer documents for processing and scoring for PPT	Parent and guardians, students	LEA and Site Coordinators have access through TOMS. May be printed locally by the school or LEA. Translated versions of SSRs will be electronically available in TOMS.
ELPAC	Summative ELPAC CBA	Individual student results	Beginning with the 2019–20 administration, within four weeks after the student has completed all domains/components of the assessment and scores are merged	LEA and site coordinators, educators	TOMS California Educator Reporting System when implemented by Smarter Balanced

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for the 2018–19 through 2021–22 Administrations

Program	Tests Included	Report Type	Reporting Timeframe	Primary Audience	Location or Delivery Method to the LEA
ELPAC	Summative ELPAC PPT	Individual student results	Within six to eight weeks after the scoring center receives a complete, clean set of answer documents for processing and scoring	LEA and site coordinators, educators	TOMS California Educator Reporting System when implemented by Smarter Balanced

Individual Student Score Reports (SSR) Delivered to LEAs

Beginning with the 2018–19 administration, all SSRs will be delivered to LEAs in electronic formats, and in a printed format if requested by an LEA. SSRs are only available in PDF format and can be downloaded from TOMS or have an on-demand availability via an application programming interface (API) to the parent portal and SIS LEA system. An LEA or their authorized student information system vendor can use the on-demand API to provide the SSR information directly into their local student information system. The LEAs would have responsibility for providing their students' parents/guardians with access to the SSRs as required by the *Education Code* for CAASPP and ELPAC, respectively.

As an ancillary (fee-based) service, ETS will offer LEAs the ability to request paper SSRs once per administration post scoring and reporting activities. The cost for printing and shipping the paper SSRs will be at each LEA's expense. For each new ancillary service identified, ETS will submit a proposed plan and proposed fees to the CDE for review and approval. ETS will use the review and approval process described in Task 1.9.

During the 2018–19 administration only, ETS will supply paper CAASPP and ELPAC SSRs to LEAs that provide a documented need for assistance, based on CDE-provided criteria, in transitioning to paperless reporting of the SSRs. ETS will use the ancillary printing service described previously to fulfill an LEA's request. ETS will support the printing, packing, and shipping of 300,000 total paper SSRs across CAASPP and ELPAC. ETS will print the paper SSRs for the students selected by the LEA through TOMS to receive a paper SSR. As part of the ancillary fee-based service, LEAs can request a different language version of the SSR and specify the needed number of copies. Beginning with the 2019–20 administration, ETS will continue to support the production of paper CAASPP and ELPAC SSRs for emergency assistance to LEAs and will produce up to 150,000 total paper SSRs per administration year across CAASPP and ELPAC.

With the transition to paperless reporting in the 2018–19 administration, California will have the flexibility to produce a longer SSR that can include information beyond test results. For example, the SSR may include more personalized information about a student's progress over time or a list of recommended resources for additional instructional focus. On the grade eleven SSRs, the additional information may include a list of California state universities to which the student may be eligible to apply.

ETS will work collaboratively with the CDE to design the look and content of the new SSRs. The design process will incorporate feedback from parents/guardians obtained as part of the formal focus groups to be conducted under Task 2.3. The design process also will incorporate feedback from stakeholders identified by the CDE. ETS will propose a schedule for the development and approval of the new SSRs, and this schedule will include the SBE providing approval of the SSR templates by November

2018. ETS will confirm that the new design will be in a consumable format that is consistent with responsive design and will accommodate local printing by LEAs.

In addition, ETS included the following assumptions for CAASPP:

- o The SSR will include test results of all operational CAASPP assessments that a student took. A student's historical scores for a rolling three years will be provided, where applicable. ETS will produce the following separate SSRs:

  - an SSR that includes the Smarter Balanced Summative Assessments for ELA and mathematics and CAST;
  - an SSR that includes all content areas for the CAAs; and
  - an SSR that includes only the CSA.

- o The student's SSR will include operational test results from all assessments on a single multi-page SSR. For the grade eleven SSR, ETS assumes that the multi-page SSR includes both the CAASPP and EAP information.
- o ETS will provide an option for an SSR for the non-CSA assessments to be reproduced in Spanish, Chinese (either Traditional or Simplified), Vietnamese, and Filipino if an LEA marks in TOMS that the student comes from a home that speaks one of these four languages. The translated version and English SSRs will be provided in the electronic downloadable format in TOMS.
- o ETS will provide the CSA SSR in both English and Spanish versions.
- o In the 2019–20 administration, ETS will work with the CDE to add two additional languages of translated SSRs, excluding the CSA SSR.

Administration Year	SSR Languages Available for CAASPP SSRs, excluding CSA
2018–19	English, Spanish, Chinese (either Traditional or Simplified), Vietnamese and Filipino
2019–20	English, Spanish, Chinese (either Traditional or Simplified), Vietnamese, Filipino, Arabic, and Cantonese

- o ETS will work with the CDE to reassess the design of the SSRs annually.

ETS included the following assumptions for ELPAC:

- o The SSR will include test results of the operational ELPAC assessment that a student took. ETS will produce separate SSRs for the Summative, Initial, and Alternate ELPAC CBA.
- o Summative ELPAC SSRs will contain a student's historical scores for up to a rolling two years, where applicable.
- o ETS will provide an option for an SSR for ELPAC to be reproduced in Spanish, Chinese (either Traditional or Simplified), Vietnamese, and Filipino if an LEA marks in TOMS that the student comes from a home that speaks one of these four languages. The translated version and English SSRs will be provided in the electronic downloadable format in TOMS.
- o In the 2019–20 and 2020–21 administrations, ETS will work with the CDE to add additional languages in an agreed timeline of translated SSRs to the Summative ELPAC.

Administration Year	SSR Languages Available for ELPAC SSRs
2018–19	English, Spanish, Chinese (either Traditional or Simplified), Vietnamese and Filipino
2019–20	English, Spanish, Chinese (either Traditional or Simplified), Vietnamese, Filipino, Arabic, and Cantonese

- o ETS will work collaboratively with the CDE to reassess the design of the SSRs annually.

LEAs will log into the reporting system through the California Assessment Delivery System, which employs a single sign-on solution.

ETS will identify other methods to present test result information to parents/guardians, such as a video format of the SSRs. ETS will conduct one to two pilot tests of approximately 30,000 students each of the other methods identified and will provide recommendations to the CDE on the effectiveness of each method.

Score Labels Delivered to LEAs

In the 2018–19 administration only and as an ancillary (fee-based) service, ETS will offer LEAs the ability to print and ship score labels along with the requested paper SSRs. The cost for printing and shipping the paper SSRs and score labels will be at each LEA's expense. For each new ancillary service identified, ETS will submit a proposed plan and proposed fees to the CDE for review and approval. ETS will use the review and approval process described in Task 1.9.

Online Reporting for Educators

Since 2015, the CDE has made available multiple secure reporting systems for educator use. For example, during the 2017–18 administration of CAASPP, educators could use the AIR Online Reporting System (AIR ORS) to access student and aggregate results for the Smarter Balanced Summative Assessments and CAA for ELA and mathematics, and they could use the Smarter Balanced Interim Assessment Reporting System. During the term, or before the end, of the contract, ETS will work with the CDE to transition the various educator online reporting systems to a single online reporting system—the California Educator Reporting System (CERS)—which is developed and hosted by Smarter Balanced.

Continued LEA Access to the AIR Online Reporting System (AIR ORS)

ETS will continue to support and use AIR ORS and its current existing functionality until the full transition to the California educator system has been completed. During the transition, which will begin during the 2018–19 administration, ETS will suspend development of new features or accessibility improvements to AIR ORS.

Similar to the security protocol for TOMS and the test delivery system components, LEAs will access the reporting features based on the level of authorized access of their roles. The hierarchy operates so that a user has access to reports for his or her corresponding role level and all levels below.

- CDE-assigned staff can view the test result reports within the state, if approved by the CDE contract monitor.

- An LEA user can view test result reports within his or her LEA drill-downs to school- and student-level reports.

- Authorized users (e.g., school administrators, educators) can view test result reports within their school.

California users will have access to ORS 24 hours a day, seven days a week, except during CDE-approved system downtime as described in Task 3 and after the transition to the Educator Reporting System, as described in the next section. After completing scoring procedures for the assessments, ETS's system will provide data for static and dynamic reports in the timeframe described in Table 30.

Transition LEA Access to the California Educator Reporting System (CERS)

Based on a mutually agreed-upon schedule, ETS will work with the CDE and, at CDE direction, Smarter Balanced to transition the CAASPP and ELPAC results to the CERS. ETS will make available the CAASPP and ELPAC results in the proposed high-level tentative timelines:

Table 31. ELPAC Data Transition Schedule

Assessment	Admin Year	Agree to Data File Layout (CDE, UCSC, and ETS)	Transfer Pilot Data to UCSC (ETS)	Validate Pilot Data (UCSC)	Pilot Dates (UCSC)	Transfer Production Data to UCSC (ETS)	Move Results into Production (UCSC)
Summative ELPAC (batch upload)	2017–18 2018–19 2019–20	Sept 2019	Mar–Apr 2020	May 2020	May–Jun 2020	Aug 2020	Aug–Oct 2020
Summative ELPAC (nightly feed)	2020–21 2021–22	Sept 2020	n/a	n/a	n/a	Feb 2021 Feb 2022	Feb 2021 Feb 2022
Summative Alternate ELPAC (nightly feed)	2021–22	Sept 2021	n/a	n/a	n/a	Feb 2022	Feb 2022

Proposed ORS Sunset Date is June 30, 2021.

Interagency Agreement End Date is June 30, 2022.

Recommendation: CAASPP should be in production (Nov/Dec 2019) before moving ELPAC to CERS.

Table 32. CAASPP Non-Smarter Balanced Data Transition Schedule

Assessment	Admin Year	Agree to Data File Layout (CDE, UCSC, and ETS)	Transfer Pilot Data to UCSC (ETS)	Validate Pilot Data (UCSC)	Pilot Dates (UCSC)	Transfer Production Data to UCSC (ETS)	Move Results into Production (UCSC)
CAST (batch upload)	2018–19	Jan 2019	June 2019	July 2019	Aug–Sept 2019	Oct 2019	Nov–Dec 2019
CAST (batch upload)	2019–20	Jan 2020				Oct 2020	Nov–Dec 2020
CAST (nightly feed)	2020–21 2021–22	Jan 2020				Jan 2021 Jan 2022	March 2021 March 2022
CAA for ELA & Math (batch upload)	2015–16 2016–17 2017–18	Jan 2019	June 2019	July 2019	Aug–Sept 2019	Oct 2019	Nov–Dec 2019
CAA for ELA & Math (batch upload)	2019–20	Jan 2020				Oct 2020	Nov–Dec 2020
CAA for ELA & Math (nightly feed)	2020–21 2021–22	Jan 2020				Jan 2021 Jan 2022	Jan 2021 Jan 2022
CSA (batch upload)	2018–19	Jan 2019	June 2019	July 2019	Aug–Sept 2019	Oct 2019	Nov–Dec 2019

Assessment	Admin Year	Agree to Data File Layout (CDE, UCSC, and ETS)	Transfer Pilot Data to UCSC (ETS)	Validate Pilot Data (UCSC)	Pilot Dates (UCSC)	Transfer Production Data to UCSC (ETS)	Move Results into Production (UCSC)
CSA (batch upload)	2019–20	Jan 2020				Oct 2020	Nov–Dec 2020
CSA (daily feed)	2020–21 2021–22	Jan 2020				Jan 2021 Jan 2022	Jan 2021 Jan 2022
CAA for Science (batch upload)	2019–20	Jan 2020	June 2020	July 2020	Aug–Oct 2020	Oct 2020	Nov–Dec 2020
CAA for Science (nightly feed)	2020–21 2021–22	Jan 2020				Jan 2021 Jan 2022	Jan 2021 Jan 2022

Proposed ORS Sunset Date is June 30, 2021.

Interagency Agreement End Date is June 30, 2022.

ETS recommends that layouts are confirmed several months prior to pilot testing.

Notes:

No CAST data for 2018–19 (standard setting year). Assume that ETS will post operational scores Oct/Nov 2019.

For the CAST 2020–21 and 2021–22 admin years, ETS will not have scores until March, after analysis and QC processes are completed.

No CSA data for 2018–19 (standard setting year). Assume that ETS will post operational scores Oct/Nov 2019.

Table 33. Smarter Balanced Data Transition Schedule

Assessment	Admin Year	Agree to Data File Layout (CDE, UCSC, and ETS)	Transfer Pilot Data to UCSC (ETS)	Validate Pilot Data (UCSC)	Pilot Dates (UCSC)	Transfer Production Data to UCSC (ETS)	Move Results into Production (UCSC)
Summative Smarter Balanced Assessment for ELA and Math (batch upload)	2014–15 2015–16 2016–17 2017–18 2018–19	Jan 2019	June 2019	July 2019	Aug–Sept 2019	Oct 2019	Nov–Dec 2019
Summative Smarter Balanced Assessment for ELA and Math (batch upload)	2019–20	May 2020	n/a	n/a	n/a	Oct 2020	Nov–Dec 2020
Summative Smarter Balanced Assessment for ELA and Math (nightly feed)	2020–21 2021–22	May 2020	n/a	n/a	n/a	Jan 2021 Jan 2022	Jan 2021 Jan 2022

Proposed ORS Sunset Date is June 30, 2021.
Interagency Agreement End Date is June 30, 2022.

Similar to the security protocol for TOMS and the test delivery system components, LEAs will access the reporting features based on the authorized level of access of their roles. ETS will provide support to Smarter Balanced to confirm that the CERS is integrated with California dedicated identity management system which will provide a seamless user experience while navigating between various assessment delivery system modules. ETS will work with Smarter Balanced to confirm that the reporting system can receive and use the user role and hierarchy assignment from the California identity management system. The hierarchy operates so that a user has access to reports for his or her role level as well as access to reports at all levels lower in the hierarchy to their assigned role.

ETS also assumes that Smarter Balanced will maintain and make available the CERS to the users 24 hours a day, seven days a week. ETS assumes that Smarter Balanced will provide a point of contact to ETS to resolve any issues related to the CERS performance and technical issues. ETS will utilize the applications, tools, and websites that Smarter Balanced provides to conduct user acceptance testing of the CERS.

Student Scores

Report Types

Based on the reporting requirements, the summative reports will contain information outlining student knowledge and skills as well as achievement/performance levels aligned to the assessment-specific claims or domains as adopted and adapted by the California State Board of Education (SBE). These reports define and present test scores for users in multiple ways. The online reports offer drill-down functionality—from the overall claim to the content claim or domain—at the LEA, school, and student levels.

For the non-Smarter Balanced computer-based assessments that will be operational during this contract period (i.e., alternate assessments for ELA, mathematics and science, CAST, CSA, ELPAC, and Alternate ELPAC CBA), the summative reports will contain information outlining student knowledge and skills as well as SBE-adopted achievement/performance levels. The CERS will be expanded to include new CAASPP and ELPAC computer-based assessments as they are implemented.

AIR ORS will produce customized reports showing preliminary individual and group-level results for online assessments. These reports are real-time and cumulative, and provide student listings with relevant score measures. The CERS is expected to provide similar functionality as AIR ORS.

AIR ORS provides static reports. Static reports include average scale score, percentage in each achievement/performance level, percent at each claim achievement or domain category, and performance on each assessment target (for Smarter Balanced Summative assessments only) based on user permissions. The CERS is expected to provide similar functionality as AIR ORS.

By default, the filtering variables in AIR ORS will align with CDE provided student demographic variables while taking into account the Smarter Balanced requirements. ETS will provide recommendations to the CDE to continue to configure AIR ORS for CAASPP. Configurable features include access rules, features that can be turned off or on or modified, availability of data fields, and customized labeling of elements of the online reports. ETS will share with Smarter Balanced the rules and knowledge related to the demographic data snapshot and reporting to help inform the CERS development.

Additional Information about Report Distribution

Electronic Test Results

The results for the Smarter Balanced Summative Assessments, CAA for ELA and Mathematics, when available, for CAST, CAA for Science, CSA, and the Summative ELPAC CBA and Summative Alternate ELPAC CBA, once operational, will be provided as electronic data files in TOMS.

All Interim reports will continue to be available via the CERS. ETS will post the results to Smarter Balanced so that the results are included in the CERS. ETS will support the data delivery to Smarter Balanced in real-time. The interim assessment data files will be provided in a CDE-approved format and will include the item- and student-level response information for each student who took an interim assessment. This information will be used to display the student responses to California educators. The interim assessment data files will also include student demographic information as approved by the CDE and student-level achievement results. Authorized users will be able to access the CERS for interim assessment results using their California login credentials once the CERS is federated with the dedicated California Identity Management System.

ETS will deliver California's Smarter Balanced Summative Assessment data to the Smarter Balanced Data Warehouse on a schedule agreed upon by the CDE and ETS. The data will follow TRT specification as published by Smarter Balanced. Any changes related to format or new data elements requests will have to be agreed upon by the CDE, ETS, and Smarter Balanced.

Monitoring Score Reporting Activities

ETS will provide a dashboard summary to the CDE that monitors ETS's adherence to the reporting requirements described in Table 30.

The dashboard summary will include the following information:

- Number and percent of test results reported on time

- Number of test results in progress for reporting

- Number and percent of test results reported late

ETS will provide the dashboard summary beginning with the first time that test results are released in the CERS for each administration. ETS will provide the dashboard summary to the CDE weekly during the reporting cycle and will provide the summary more frequently during peak reporting periods.

Correcting SSR Errors Due to Changes to the Data

A number of factors may cause data to change and require SSRs to be regenerated. Examples of factors include, but are not limited to, the following:

- An operational item was identified to be excluded from scoring after reporting occurred.

- SSIDs were corrected for students who tested using the incorrect SSIDs provided by the test administrator. The SSID issue was reported after the tests results were reported.

- An appeal was completed after the SSR was generated.

- A student whose incomplete tests were processed because his or her original LEA's test window closed and the student moved to an LEA where the test window was still open.

As part of the reporting specifications, ETS will work with the CDE to develop the business rules, deadlines, triggers (e.g., timing, LEA errors, triggers to rescore) to handle corrections to SSRs. If the cause of the change is due to LEA error, ETS will offer ancillary fee-based services paid by the LEA for the printing of revised SSRs.

In any such event, ETS staff will take the following steps:

- initially analyze the situation

- inform the CDE immediately

- further analyze the impact of the error

- discuss solution options with the CDE and with Smarter Balanced for the Smarter Balanced tests as needed

- deliver an expedient resolution that best mitigates program risk

The revised reports will be clearly identified with the appropriate revision date.

Correcting Demographic and Special Testing Conditions Data

Since CALPADS is the source of record for student demographic data, LEAs will be instructed to make demographic data corrections in CALPADS. The corrected demographic data will be available in TOMS and the Test Delivery System. The CERS

receives demographics data as part of test results. ETS will share the knowledge and experience related to demographics reporting rules with Smarter Balanced. Any solution changes related to sending demographics data through a separate data feed would need to be mutually agreed upon by the CDE, ETS and Smarter Balanced.

LEAs will be instructed to use TOMS to make corrections to special testing conditions information and other test-specific data that may be correctable, such as parent exemptions or accommodations used by the student.

All corrections should be submitted by the LEA on or before the end of its test administration window. There will be no cost to LEAs for making either demographic data corrections or changes to other testing condition information that may be correctable. If the LEA makes corrections in CALPADS after the end of its test administration window, the corrections will not be reflected in the LEA's aggregate data in the public web reporting site and student reports. Currently, any CALPADS data changes occurring after testing will not be reflected in AIR ORS or the CERS.

Rescore Requests for Responses That Were Hand Scored

ETS will establish a process by which an LEA may request that a student's test be rescored as a fee-based ancillary service paid by the LEA. ETS will provide a price list for ancillary services to the CDE for review and approval. Rescore requests will be restricted to responses to Smarter Balanced Summative Assessments, CAST, and Summative ELPAC that were hand scored. Rescoring will not be available for the CAAs, since the student responses are entered by the examiner; or for the CSA, since these tests do not include items that are hand scored.

Rescores will not be available for Initial ELPAC or for Alternate ELPAC CBA assessments, since the student scores are entered by the test examiners.

ETS scoring leaders will review each original student response in question along with the original score assigned. For responses that were hand scored by human raters, the original score assigned to the student response will be reviewed in close comparison to the original anchor papers used in training. If ETS's scoring experts determine that the original score assigned was incorrect, a new score will be issued.

For CAASPP and ELPAC, LEA CAASPP, or ELPAC coordinators must call CalTAC/CSC to request rescores by the last Friday of the month of July annually after the completion of the test administration year; this will allow enough time to process the request and to complete rescoring in time for the release of student and aggregate data files to the CDE. ETS will work with the CDE to establish any additional criteria by which LEAs may request rescoring and to determine the fee for rescore requests.

9.2. Reporting to the CDE—Public Reporting Website

ETS will design and develop, utilizing responsive web design techniques so that the layouts of the web page are optimized for the width of the requesting device, an updated CAASPP and ELPAC results reporting suite of websites that the CDE can host. Development that builds upon the existing web-based solution will follow ETS software development standards, as described in Task 3, while also adhering to the CDE Web Application Development Standards and the CDE Web Standards. ETS's design staff will consult with the CDE to document detailed specifications for aggregation of the data per *EC* Section 60641, as well as display of the data in the web reporting suite. ETS will supply installation documentation, functional requirements, and a change log to the CDE. Table 34 shows the results that will appear within this web suite.

Table 34. CAASPP and ELPAC Test Results Provided to the Public

Type of Report	Tests	Content	When
CAASPP website hosted by the CDE	Smarter Balanced Summative, CAST, CAA ELA/Mathematics/ Science, CSA	Aggregate results at school, grade, LEA, county, and state levels and will allow for selection of further breakdowns as may be required by state and federal law based on the required demographic data (e.g. race, English language proficiency, gender, ethnicity) identified by the CDE. The application will also allow for comparison of multiple schools or LEAs and will incorporate a data-visualization design approach.	Beginning in the 2018–19 administration, late summer annually, to be determined by CDE
ELPAC website hosted by the CDE	ELPAC Summative, ELPAC Initial, and Alternate ELPAC CBA	Aggregate results at school, grade, LEA, county, and state levels; will allow for selection of further breakdowns as may be required by state and federal law based on the required demographic data (e.g., race, English language proficiency, gender, ethnicity) identified by the CDE.	Beginning in the 2018–19 administration, early fall annually, to be determined by the CDE. Alternate ELPAC CBA results will be available beginning in fall 2021.

Type of Report	Tests	Content	When
State-level cross tabulations	Smarter Balanced Summative, CAST, CAA ELA/Mathematics/ Science, CSA, Summative ELPAC, Alternate ELPAC CBA	Cross-tabulations of the statewide test results, as determined by the CDE.	Beginning in the 2018–19 administration, late summer annually, to be determined by the CDE
Accessibility usage summary report at the state, district, and school levels	Smarter Balanced Summative, CAST, CAA ELA/Mathematics/ Science, CSA, ELPAC CBA, and Alternate ELPAC CBA	Counts of accessibilities assigned to students for testing of the online assessments. Counts of certain accessibilities used as identified by the CDE based on analysis.	Beginning in the 2018–19 administration, late summer annually, to be determined by the CDE

ETS will develop the public websites, with CDE approval, in a way that establishes that all pages maintain a consistent look, feel, and parity of features and functionality for all CAASPP and ELPAC assessments.

ETS will develop a data delivery schedule with the CDE. The data delivery schedule will confirm that the CDE can meet its federal and state accountability reporting timelines.

ETS will protect the platform or application itself by user authentication during the "LEA preview period" prior to being publicly available.

ETS will put in place quality controls of the application and the data displayed. Also, ETS will test software developed by ETS for quality and performance, and the CDE will also have user acceptance signoff. ETS, in collaboration with the CDE will review aggregate data files for accuracy. Reviews of the aggregate data files will include the use cases identified from previous reporting cycles. With CDE approval, ETS will also work with selected LEAs during the data review process to obtain direct input from the LEAs about their data. The LEAs would be selected from the existing group of LEAs that agreed to provide ongoing input to the CAASPP and ELPAC technology services and test administration processes. This group of LEAs was determined by the CDE and if desired by the CDE, ETS is willing to rotate these LEAs annually. Additionally, ETS will install data files into ETS's user acceptance testing environment to confirm that ETS completes the data load without error. ETS will turn over data files and application code to the CDE per an agreed-upon schedule.

To protect student privacy, the web reporting suite will implement the CDE-required suppression rules. ETS will use an asterisk or similar mark to suppress data where someone could ascertain a student's identity. For example, if a grade includes 10 or fewer students with valid test scores, an asterisk or similar notation will appear in the reporting rows to indicate that the data were suppressed. Additional suppression rules will be applied at the subgroup level to prevent a user of the public web reporting suite from gathering ethnicity, gender, disability, or other reporting subgroup data for any group of 10 or fewer students.

To speed up delivery of web pages during times of peak demand or when the site is performing suboptimally, ETS will support static versions of all the web pages. Since the web reporting site will reside on the CDE servers, the CDE will monitor website performance. ETS will provide technical support to the CDE Technology Services Division as needed to optimize the web reporting site.

Requirements for the Reporting Web Suite

ETS will work with the CDE and the SBE on the timeline for the delivery of the Reporting website. For planning purposes, ETS will assume that the CDE will publicly release statewide test results in late summer for CAASPP and early fall for ELPAC. As the ELPAC CBA is implemented, ETS will monitor the availability of all ELPAC test results that may allow for an earlier production of the ELPAC end-of-year data file and transfer to the CDE.

ETS will work with the CDE to comply with or exceed the CDE's most current web standards for each administration. For example, ETS will provide reports and text that will support WCAG 2.0 compliance and will confirm that the reports and text are compatible with the current CDE web standards. ETS assumes that the CDE will continue to host the reporting web suite.

The design of the reporting web suite will be data driven so the user can efficiently select particular parameters to see the desired reporting of results. The design will be scalable to accommodate additional servers. While there are many combinations of summary reports that will be accessible, the summary data will be pre-calculated. While this may limit the dynamic nature of the site, it will prevent inappropriate summaries that could lead to inappropriate interpretation of results by users.

The software application supporting the CAASPP Reporting website will allow the site administrator to load new iterations of data into the database and to generate new research files based on the refreshed data. As the data are refreshed, notes added by the CDE from the previous iteration will be preserved. In order to maintain consistency of features between the CAASPP and ELPAC Reporting websites, ETS will collaborate with the CDE to evaluate what administrator functionality is appropriate for the ELPAC Reporting website and whether the administration tool used for CAASPP is also appropriate and can be adapted for ELPAC. Summaries by counties, LEAs, schools,

and the state will be provided. The site will support all operational CAASPP and ELPAC assessments.

Student Privacy

ETS will deliver the Reporting website in accordance with these requirements:

- use of an asterisk to suppress data where a student's identity could be ascertained

- reporting of all performance levels and a combined achievement/performance level that totals the sum of the achievement/performance levels as determined by the CDE

- allowance for the selective inclusion of either all available achievement/performance levels or the combined achievement/performance level on web pages

Delivery of Aggregate Summary Data Files That Are Synchronous with the Delivery of the Student Data Files

The web suite will provide for aggregate summary data files that are synchronous with the delivery of the statewide student data files. These aggregate summary data files include aggregations by schools, LEAs, counties, and the state. Direct funded charters are represented as separate LEAs within a county. The summaries will also be compiled by individual assessment and by grade within each assessment. They will include statistical data for the various assessments reflecting achievement/performance levels. These data will include the number of test takers, the average scale score, and derived scores as appropriate. ETS will document the aggregation rules and submit the aggregation rules to the CDE for review and approval according to the process described in Task 1.9.

Requirements for the Aggregate Summary Data

ETS will deliver report pages and research files that include aggregate summary data. The summary data and the website will be based on the agreed upon reporting specifications annually.

Summary Data

ETS will work with the CDE annually to determine the subgroup categories to be supported by the Reporting website.

ETS will include the ethnicity by economic status data in the Summary Data submitted to the CDE for web reporting purposes. For web reporting purposes, the ethnicity subgroups will include: African American or Black, American Indian or Alaskan Native, Asian, Filipino, Hispanic or Latino, Pacific Islander, White, and two or more races. Economic Status analysis will include Economically Disadvantaged and Not

Economically Disadvantaged. ETS will work with the CDE to incorporate changes annually to the required subgroup reporting categories.

Research Files

The web reporting application supports the following research file requirements:

- state-level research file that contains all county, LEA, and school results for all demographic subgroups

- the "all students" demographic subgroup

- limited research files that contain all data for selected counties, LEAs, and schools

- suppression of results where the reported group totals 10 or fewer students or where the number of student reports in any individual cell may allow identification of an individual student

- compressed (zipped) research files formatted as fixed-length ASCII and caret-delimited (including column names) files

- an Access 2003 (or a more recent version of Access) database shell that can be used to import caret-delimited research files along with all instructions for use of the database shell

- a load utility that will facilitate the easy importation of caret-delimited research files into the database shell

- a change log that reflects business rule changes from year to year

Administrative Functionality

For CAASPP and ELPAC, ETS will incorporate extensive administrative functionality into the Internet design to include:

- **Notes.** These allow for the inclusion of "notes" that may be dynamically added to any selected report page. For example, notes may be added to one or all schools in an LEA and to one or all of the subgroups. Notes must be capable of being retained when report data are updated.

- **Embargo Reports.** These allow for the selected exclusion of Internet report pages. For example, all reporting claim reports may be excluded, or a report page may be embargoed for subgroup reports at the school level while the combined proficiency report is accessible. In addition, all state reports are embargoed until the site is opened to the public.

- **Research File Generation.** This allows for the generation of new research files when new aggregate data are loaded to the site. Which files are generated and the sequence of that generation must be part of the research-file generation function.

CDE Web Delivery Requirements

The key to successful deliveries of the web reporting application and data files is to plan for preliminary iterations. This strategy allows the CDE data management staff to be involved in early review of the site and the data. By delivering early, issues are identified and remedied earlier, before the critical public deadlines. Prior to the statewide preview period for all LEAs, ETS, in collaboration with the CDE, will work with a small group of LEAs to review the preliminary iterations of their aggregate data files. ETS will investigate and resolve any issues identified in this LEA review and will deliver revised data files as necessary. During the statewide preview period of the web reporting site available to all LEAs, ETS will respond to LEA and the CDE requests for clarification on the LEA's aggregation summaries. If resolution of an issue requires revised data files or revisions to the web reporting application, ETS will work with the CDE to agree on the steps for resolving the issue, timeline to deliver the revised data files or application, and communications to the LEAs.

Annually, ETS will propose a timeline for site development and data deliverables for the CDE approval. The proposed timeline will include contingency plans if additional time is needed to resolve data issues and re-generate data files or revise the web application.

9.3. Data Files

ETS will maintain a student database to house all student demographic data and assessment results. This database will accommodate millions of records of the size and scope of the California Assessment System. Information associated with each student has a database relationship to the LEA, school, and grade codes as data are collected during the operational chain of events. Integral to this database is the maintenance of a student identification system, which confirms that each student is uniquely identified within the test delivery system so all assessment information can easily be associated with that student. ETS assumes that the CDE-issued SSID number provided in CALPADS will serve as the unique student identifier. ETS will maintain the SSID for all records produced throughout the life of the incumbent contract.

ETS recognizes that CALPADS is the state database of record for managing and maintaining the longitudinal student data. The scoring capabilities and procedures described in Task 8 outline ETS's robust process for both paper-pencil answer documents and assessments delivered online. ETS's scoring process will utilize the SSID number to provide the linkage information that maps directly to the database. Whether a student uses a pre-ID label or hand grids an answer document, receives a unique login user ID and password, or takes multiple modes of assessments—each of

the delivery modes will direct the resulting data for that student to a central repository for scoring and reporting.

ETS will deliver LEA student data files, CDE student state data files, and corresponding aggregate files separately for CAASPP and ELPAC on the delivery schedule agreed upon with the CDE. ETS recognizes that delivery dates will be dependent on the requirements for the state and federal accountability programs.

ETS assumes that the Board will approve one of the three growth model simulations to be presented by the CDE in early 2018. The growth model simulations will use the California test results from the Smarter Balanced ELA and mathematics assessments. ETS will perform the calculations for the Board-approved growth model, as described in Task 8.2, and will include the results in the data files provided to the CDE. ETS will provide a growth model analysis file separately from the student data file deliveries to the CDE. The growth model analysis files will be delivered annually as determined by the CDE and using the analysis specifications and data files that are mutually agreed to by the CDE and ETS.

ETS will prepare the data in a format that the CDE can access. Due to the large numbers of records produced for CAASPP and ELPAC annually, ETS will deliver fixed record-length data files. ETS will consult with the CDE to determine if data delivery in a different format (e.g., XML file or delimited file) is necessary.

ETS will deliver item response data files for all non-Smarter tests (i.e., CAST, CSA, CAA, Summative ELPAC, and Summative Alternate ELPAC CBA). ETS will also deliver de-identified student files to Smarter Balanced for the summative assessments. ETS will provide the files according to the Test Results Transmission (TRT) specification published by Smarter Balanced for online and paper test results. The files will be delivered annually on a mutually agreed-upon schedule upon written approval of the CDE. A copy of the files provided to Smarter Balanced will be posted for the CDE. ETS's systems will maintain two types of files for CAASPP and ELPAC: a complete student response file for each CAASPP and ELPAC test administration, and a history file for all students who have participated in CAASPP and ELPAC testing. ETS will maintain a cumulative repository of individual test results for all students who have participated in CAASPP and ELPAC testing. The history file will include CDE-specified student identification and performance data, as well as other information necessary for merging with files of any other test administration in which the student participated. The CAASPP and ELPAC history will allow the tracking of previous test administrations for individual students. The history file will maintain compatibility with files developed under previous contracts and with files developed by other CDE contractors of new CAASPP content areas awarded contracts under the terms of this SOW.

Separately from the student data file described previously, ETS will deliver a student-level data file of CAASPP and ELPAC CBA test settings assigned and used by the

student. ETS will deliver this report by September 30th annually after the completion of the test administration year.

9.4. Secure File Transfer System

Due to the confidential nature of test results, ETS uses secure file transfer protocol (SFTP) and encryption for all student data files. SFTP offers an efficient mechanism for transferring large-scale data. In addition, ETS uses ZIP archive file format technology to reduce the disk space requirements on all files. This method applies to all data file transfers.

ETS supports most secure transfer protocols, including web-service-based technologies, to exchange data with clients and file-based transfers using Tumbleweed® Communications Corp., a provider of security solutions. This enables ETS to effectively manage and protect business-critical Internet communications. These processes allow simplified data exchanges with secure and easy-to-use architecture, which provides management of files and large documents over the Internet. One standard, easy-to-use mechanism is an SFTP.

As a part of implementation, ETS will establish an SFTP service that will manage SFTP transfers to a directory structure between ETS and the CDE. Gatekeepers, generally one in California and one at ETS, will determine access privileges. The ETS gatekeeper will be responsible for approving all users for access.

ETS will provide all interfaces with the most stringent security considerations in mind, including interfaces for data encryption at rest and in transit for databases that store test items and student data. Encryption at rest primarily applies to any data files that reside on a server that uses the SFTP waiting to be retrieved. ETS integrates best security practices, including system-to-system authentication and authorization, in ETS's solution design. These practices meet the FIPS PUB 140-2 issued by the NIST. All CAASPP and ELPAC data will remain within the continental United States, as the CDE requires.

9.5. Technical Report

ETS will consult with the CDE and recommend suggestions in organization, style, and specificity that would improve the readability and overall usefulness of technical reports. Furthermore, ETS will consult with the CDE to determine what standard elements of the technical report overlap with the elements supplied by Smarter Balanced and need not be a part of the reports for CAASPP, Initial ELPAC, Summative ELPAC, and Alternate ELPAC CBA. ETS will confirm that generated reports include what is necessary for the CDE and the corresponding Technical Advisory Committees in producing the final versions of the technical reports.

ETS will produce a technical report for each administered assessment, including pilot or field test assessments. Table 35 lists the planned technical reports for each administration.

Table 35. Planned CAASPP, ELPAC, and Alternate ELPAC CBA Technical Report for Assessments by Administration

Assessment	2018–19 Administration	2019–20 Administration	2020–21 Administration	2021–22 Administration
Smarter Balanced for ELA and Mathematics (Summative)	Yes	Yes	Yes	Yes
CAA for ELA and Mathematics	Yes	Yes	Yes	Yes
CAST	Yes	Yes	Yes	Yes
CAA for Science	Not Applicable for the Field Test	Yes	Yes	Yes
CSA	Yes	Yes	Yes	Yes
Initial ELPAC PPT	Yes	Yes	Not applicable	Not applicable
Summative ELPAC Summative PPT	Yes	Not applicable	Not applicable	Not applicable
Initial ELPAC CBA	Not applicable	Not applicable	Yes	Yes
Summative ELPAC CBA	Not applicable	Yes	Yes	Yes
Alternate ELPAC CBA	Not applicable	Not applicable	Yes	Yes

For the Smarter Balanced technical report, unless critically important to the narrative, ETS will not duplicate analysis or information produced by the Smarter Balanced Assessment Consortium on behalf of its member states.

ETS will deliver drafts of the technical manuals annually by November 1st or within the schedule mutually agreed to by the CDE and ETS that takes into account the availability of the data for each administration. The following bullets outline the proposed

organization of the technical reports. ETS will work with the CDE to determine any additional chapters or analyses as needed.

- **Executive Summary.** This summary section can stand alone for public distribution, and ETS will write it for an informed lay audience (e.g., school principals). It will highlight key findings from each chapter of the technical report.

- **Chapter 1. Introduction.** This chapter provides an introduction to the technical manual, gives the purposes of the assessment, and describes the uses of the assessment information.

- **Chapter 2. Overview of the Assessment.** This chapter describes the item formats and item specifications, as well as test assembly, test administration, scoring, and an equating overview.

- **Chapter 3. Item Development.** This chapter describes the procedures followed during item development. For the Smarter Balanced assessments, only a very brief overview of the process will be included, as ETS expects that the Smarter Balanced consortium will include a thorough discussion in its report.

- **Chapter 4. Test Assembly.** This chapter provides a description of the content being measured and detailed descriptions of how the content is being measured (i.e., test blueprints). This chapter provides a rationale for how blueprints were constructed and the construct being measured. For the Smarter Balanced assessments, only a very brief overview of the process will be included.

- **Chapter 5. Test Administration.** This chapter details the processes involved in the actual administration with emphasis on efforts made to confirm standardization of the tests. It also details procedures to confirm test security.

- **Chapter 6. Performance Standards.** This section will overview the cutpoint validation and the standard-setting methodologies and describe the process conducted to establish cut scores for the assessments based on their first operational administration. For the Smarter Balanced assessments, this section will link to the report supplied by the Smarter Balanced consortium.

- **Chapter 7. Scoring.** This chapter provides information on the scoring processes and describes the types of scores and score reports produced at the end of each administration. The section will include scale score distribution tables and demographic summaries, as well as summary reports of how the automated scoring systems performed.

- **Chapter 8. Psychometric Analyses.** This chapter provides detailed information on the psychometric analyses of the operational test data. It presents and describes the results of the item and test analyses, differential item functioning results, calibration and scaling process, linking and equating methods, and

deriving scale scores. It includes explanations for all statistical procedures implemented during the psychometric analyses; interpretations of the data and the analyses; and IRT analyses, standard errors of measurement, and reliability estimates (including for subgroups). For the Smarter Balanced assessments, ETS will base the statistics only on students from California.

- **Chapter 9. Quality Control Procedures.** This chapter describes quality control procedures of various aspects of the testing process—from control of item development, to scoring procedures and psychometric processes, to score reporting. Specifically for ELPAC CBA, samples of the audio recordings for Speaking responses will be scored at ETS. Scores obtained from ETS scorers will be compared to the locally produced Speaking scores in the rater agreement analyses. The chapter also describes areas of continuous improvement that have been implemented during the current operational year.

- **Chapter 10. Historical Results.** This chapter provides yearly results for each assessment, at both the item and test levels. ETS will maintain longitudinal results in this chapter.

ETS will provide the CDE sufficient time to review each technical report and verify the accuracy of analyses. ETS will provide at least twenty business days for the CDE to review the first drafts and ten business days for the CDE to review the revised draft. ETS scheduled five business days for the CDE review of the final draft.

ETS will deliver five bound copies of each final technical report. In addition, ETS will deliver electronic formats of each technical report—in Microsoft Word, PDF, and HTML—that will meet the CDE's web accessibility requirements, and ETS will deliver the tables included in the technical reports as Microsoft Excel files.

9.6. Other Analyses or Reports

ETS will partner with the CDE and SBE staff/liaisons to identify and expand on research questions and develop instruments for the CDE's approval. ETS will make recommendations for all data collection instruments, such as interview protocols, observation protocols, surveys, and cognitive labs. ETS will then deliver the instruments within the test delivery system in order to link responses to student performance and student demographic data from CALPADS.

Studies to be considered include, but are not limited to:

- analyses to inform improvements to the state accountability dashboard that may provide LEAs with tools to evaluate and close the achievement gap (proposed 2019–20);

- evaluate the impact of implementation of ELPAC domain exemptions on student score distributions (proposed 2019–20);

- impact of student motivation for CAST, including a literature review (proposed 2018–19);

- investigations related to the new peer review requirements for ELPAC CBA and Alternate ELPAC CBA (proposed 2019–20);

- CAST AI study to investigate increasing automated scoring of constructed-response items (2019–20);

- additional information that could be provided to parents and educators by using the CSA and Smarter Balanced ELA scores together, which could be provided with only one of those scores (i.e., not a correspondence study) (proposed 2018-19);

- investigations regarding the feasibility of using AI to score ELPAC CBA responses (proposed 2020–2021); and

- other studies as approved by the CDE that help inform item and test design plans.

ETS estimated the completion of five to seven special studies annually as approved by the CDE.

Once each year during the term of the contract with the CDE, ETS will propose additional studies and analyses to support the validity of the California Assessment System, evaluate new initiatives, or address relevant policy issues. ETS will recommend additional studies either proactively or upon request. ETS will work with the CDE to support the technical quality of the California Assessment System, which includes validity, reliability, fairness and accessibility, and comparability.

A global view of the process would be that ETS and the CDE and SBE staff and liaisons would meet at least once a year to discuss special studies. Should the CDE request any special studies, ETS will meet with researchers who have specific expertise in the study area requested. ETS would present the research study plans, along with a statement of cost, to the CDE. Together, the CDE, SBE staff and liaisons, and ETS staff would discuss the specific plans and make necessary modifications before agreeing on final costs. All special studies and research will adhere to the requirements outlined in Appendix B—Reporting Expectations for Special Studies and Research Projects.

Appendix A—Sample Program Schedule

The program schedule is a living document. The program schedule included in this appendix is a sample for planning purposes only. ETS will present a proposed schedule at each Semi-annual Planning Meeting. At a minimum, the agreed-upon schedule will be reviewed with the CDE during the Weekly Management Meetings, and more often as determined by the needs of the program.

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
0	0	CAASPP Amendment 6 Schedule	1792 days	NA	NA	1/4/16	12/30/22	ETS
1	1	Project Start	1 day	NA	65, 66, 361, 395	7/5/17	7/5/17	ETS
2	2	2018-19 Administration Year	1038 days	NA	NA	1/4/16	2/10/20	ETS
3	2.1	Project Administration	440 days	NA	NA	10/2/17	6/28/19	ETS
4	2.1.1	Project Management	440 days	NA	NA	10/2/17	6/28/19	ETS
5	2.1.1.1	Project Management Begins	0 days	NA	34, 35, 36, 38FS+30d, 40, 41, 24, 11FS+134d, 7, 50, 115, 51FS+147d, 48, 9, 19, 21, 22, 28, 26, 49	10/2/17	10/2/17	ETS
6	2.1.1.2	Project Management Plan (PMP) & subplans	440 days	NA	NA	10/2/17	6/28/19	ETS
7	2.1.1.2.1	Update project management plan and subplans as appropriate for process improvements	440 days	5	NA	10/2/17	6/28/19	ETS
8	2.1.1.3	Risk & Issue Tracking	440 days	NA	NA	10/2/17	6/28/19	ETS
9	2.1.1.3.1	Conduct Monthly Risk Review Meeting with CDE (Twice Monthly)	440 days	5	NA	10/2/17	6/28/19	ETS
10	2.1.1.4	Schedule Management	306 days	NA	NA	4/17/18	6/28/19	ETS
11	2.1.1.4.1	Complete annual update to Work Breakdown Structure	10 days	5FS+134d	13	4/17/18	4/30/18	ETS
12	2.1.1.4.2	2018-19 Schedule of Deliverables (SoD)	296 days	NA	NA	5/1/18	6/28/19	ETS
13	2.1.1.4.2.1	Prepare 2018-19 SoD	100 days	11	14	5/1/18	9/20/18	ETS
14	2.1.1.4.2.2	Review and provide feedback on 2018-19 SoD	20 days	13	15	9/21/18	10/18/18	CDE
15	2.1.1.4.2.3	Review and approve 2018-19 SoD and Deliverables crosswalk	20 days	14	16	10/19/18	11/15/18	CDE
16	2.1.1.4.2.4	Lock baseline dates in 2018-19 SoD	1 day	15	17	11/16/18	11/16/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
17	2.1.1.4.2.5	Conduct project schedule execution and SoD Variance Summary reporting	155 days	16	NA	11/19/18	6/28/19	ETS
18	2.1.1.5	Change Management	440 days	NA	NA	10/2/17	6/28/19	ETS
19	2.1.1.5.1	Conduct Monthly Change Control Meeting with CDE (Twice Monthly)	440 days	5	NA	10/2/17	6/28/19	ETS
20	2.1.1.6	Status Reporting	440 days	NA	NA	10/2/17	6/28/19	ETS
21	2.1.1.6.1	Submit Monthly Invoice and Accomplishments Report to CDE	440 days	5	NA	10/2/17	6/28/19	ETS
22	2.1.1.6.2	Submit Weekly Status Report to CDE	440 days	5	NA	10/2/17	6/28/19	ETS
23	2.1.1.7	Monthly Progress Reports	440 days	NA	NA	10/2/17	6/28/19	ETS
24	2.1.1.7.1	Deliver monthly progress reports to CDE	440 days	5	NA	10/2/17	6/28/19	ETS
25	2.1.1.8	Continuous Improvement Plan	440 days	NA	NA	10/2/17	6/28/19	ETS
26	2.1.1.8.1	ETS works with the CDE to enhance a continuous improvement plan for the extension	440 days	5	NA	10/2/17	6/28/19	ETS, CDE
27	2.1.2	Program Meetings	440 days	NA	NA	10/2/17	6/28/19	ETS
28	2.1.2.1	Conduct internal ETS planning meeting	2 days	5	29FS+30d	4/19/18	4/20/18	ETS
29	2.1.2.2	Conduct Annual Planning Meeting	2 days	28FS+30d	30	6/5/18	6/6/18	ETS
30	2.1.2.3	Conduct Reporting Specifications Intake meeting	1 day	29	33, 31	6/7/18	6/7/18	ETS
31	2.1.2.4	Prepare meeting minutes/participant list and deliver to CDE	5 days	30	32	6/8/18	6/14/18	ETS
32	2.1.2.5	Submit final Program Improvements Plan	1 day	31	NA	6/15/18	6/15/18	ETS
33	2.1.2.6	Conduct manuals and context-sensitive help intake meeting	2 days	30	NA	6/8/18	6/11/18	ETS
34	2.1.2.7	Conduct weekly internal status meetings	440 days	5	NA	10/2/17	6/28/19	ETS
35	2.1.2.8	Conduct weekly CDE management meetings	440 days	5	NA	10/2/17	6/28/19	ETS
36	2.1.2.9	Conduct additional meetings as needed	440 days	5	NA	10/2/17	6/28/19	ETS
37	2.1.2.10	State Board Meetings	410 days	NA	NA	11/13/17	6/28/19	ETS
38	2.1.2.10.1	Attend State Board meetings	410 days	5FS+30d	NA	11/13/17	6/28/19	ETS, CDE
39	2.1.2.11	Technical Advisory Group (TAG) Meetings	440 days	NA	NA	10/2/17	6/28/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
40	2.1.2.11.1	Work with the CDE to develop TAG agendas	440 days	5	NA	10/2/17	6/28/19	ETS, CDE
41	2.1.2.11.2	Attend TAG meetings	440 days	5	NA	10/2/17	6/28/19	ETS, CDE
42	2.1.2.12	Network Coordination Meetings	190 days	NA	NA	3/30/18	12/31/18	ETS
43	2.1.2.12.1	Q1 Network Coordination Meeting	1 day	NA	44	3/30/18	3/30/18	ETS
44	2.1.2.12.2	Q2 Network Coordination Meeting	1 day	43	45	6/29/18	6/29/18	ETS
45	2.1.2.12.3	Q3 Network Coordination Meeting	1 day	44	46	9/28/18	9/28/18	ETS
46	2.1.2.12.4	Q4 Network Coordination Meeting	1 day	45	NA	12/31/18	12/31/18	ETS
47	2.1.3	Test Security	294 days	NA	NA	10/2/17	12/3/18	ETS
48	2.1.3.1	Update and deliver the Test Security Plan for the 2019 administration	30 days	5	NA	5/14/18	6/25/18	ETS
49	2.1.3.2	Communication from ETS to LEAS requesting yet to be submitted designations forms and security agreements	75 days	5	NA	8/15/18	11/30/18	ETS
50	2.1.3.3	Monitor social media sites for test security breaches	252 days	5	NA	10/2/17	10/2/18	ETS
51	2.1.3.4	Perform on-site security audit visits	125 days	5FS+147d	52SS	5/4/18	10/30/18	ETS
52	2.1.3.5	Investigate test security breaches as needed	147 days	51SS	53SS+5d	5/4/18	12/3/18	ETS
53	2.1.3.6	Deliver audit reports to CDE	125 days	52SS+5d	NA	5/11/18	11/6/18	ETS
54	2.2	Program Support	501 days	NA	NA	7/6/17	6/28/19	ETS
55	2.2.1	LEA Management and Communications	151 days	NA	NA	5/1/18	12/4/18	ETS
56	2.2.1.1	Communication from ETS to LEAS requesting school hierarchy information	1 day	NA	NA	5/1/18	5/1/18	ETS
57	2.2.1.2	Collect LEA CAASPP coordinator designation forms and security agreements	50 days	NA	58FS-30d	9/4/18	11/12/18	ETS
58	2.2.1.3	Input updates into the LEA CAASPP coordinator database	43 days	57FS-30d	59	10/2/18	12/3/18	ETS
59	2.2.1.4	Provide CDE access to the CAASPP coordinator database	1 day	58	NA	12/4/18	12/4/18	ETS
60	2.2.1.5	LEA Technology Readiness	61 days	NA	NA	9/1/18	11/29/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
61	2.2.1.5.1	Collect technology readiness information from LEAs	40 days	NA	62	9/1/18	10/29/18	ETS
62	2.2.1.5.2	Conduct outreach campaign to non-responsive LEAs	20 days	61	63	10/30/18	11/28/18	ETS
63	2.2.1.5.3	Present readiness results to CDE	1 day	62	NA	11/29/18	11/29/18	ETS
64	2.2.2	Digital Library	501 days	NA	NA	7/6/17	6/28/19	ETS
65	2.2.2.1	Provide access to and customer support for Digital Library	501 days	1	NA	7/6/17	6/28/19	ETS
66	2.2.2.2	Marketing Efforts	501 days	1	NA	7/6/17	6/28/19	ETS
67	2.2.3	LEA Training	244 days	NA	NA	6/29/18	6/14/19	ETS
68	2.2.3.1	LEA Training	241 days	NA	NA	7/5/18	6/14/19	ETS
69	2.2.3.1.1	CAASPP Workshops, Webcasts, and Online Videos	241 days	NA	NA	7/5/18	6/14/19	ETS
70	2.2.3.1.1.1	In-Person Workshops	241 days	NA	NA	7/5/18	6/14/19	ETS
71	2.2.3.1.1.1.1	July-August 2018 (Summer Scoring Institutes)	30 days	NA	NA	7/5/18	8/15/18	ETS
72	2.2.3.1.1.1.1.1	Summer Scoring Workshop (North, Central and South)	30 days	NA	74FS+12d, 75FS+12d	7/5/18	8/15/18	ETS
73	2.2.3.1.1.1.2	September - October 2018 (Interim Hand Scoring Workshops)	35 days	NA	NA	9/4/18	10/22/18	ETS
74	2.2.3.1.1.1.2.1	Interim Assessment Hand Scoring Workshop (North, Central and South)	35 days	72FS+12d	NA	9/4/18	10/22/18	ETS
75	2.2.3.1.1.1.2.2	Digital Library & Interim Assessment Clinics (North, Central and South)	35 days	72FS+12d	77FS+20d	9/4/18	10/22/18	ETS
76	2.2.3.1.1.1.3	January - February 2019 (Pretest Workshops)	30 days	NA	NA	1/7/19	2/15/19	ETS
77	2.2.3.1.1.1.3.1	Present Pretest Workshops throughout the state	30 days	75FS+20d	79FS+10d	1/7/19	2/15/19	ETS
78	2.2.3.1.1.1.4	May - June 2019 (Post-Test Workshops)	25 days	NA	NA	5/13/19	6/14/19	ETS
79	2.2.3.1.1.1.4.1	Present Post-Test Workshops throughout the state	25 days	77FS+10d	NA	5/13/19	6/14/19	ETS
80	2.2.3.1.1.2	Webcast Only	1 day	NA	NA	5/13/19	5/13/19	ETS
81	2.2.3.1.1.2.1	Pretest Workshop - 2 hours (2018 - 2019)	1 day	NA	NA	5/13/19	5/13/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
82	2.2.3.1.1.3	Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/18	11/28/18	ETS
83	2.2.3.1.1.3.1	Present Short Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/18	11/28/18	ETS
84	2.2.3.2	Manuals	189 days	NA	NA	6/29/18	3/29/19	ETS
85	2.2.3.2.1	2018-19 Manuals begin	0 days	NA	88FS-1d, 90FS-1d, 92FS-1d, 94FS-1d, 96FS-1d, 99FS+69d, 101FS+69d, 104FS+128d, 106FS+128d, 108FS+128d	7/2/18	7/2/18	ETS
86	2.2.3.2.2	Manuals needed for Phase 1	76 days	NA	NA	6/29/18	10/16/18	ETS
87	2.2.3.2.2.1	TOMS Pre-Administration Guide for CAASPP Testing	45 days	NA	NA	6/29/18	8/31/18	ETS
88	2.2.3.2.2.1.1	Revise TOMS Pre-Administration Guide for CAASPP Testing	45 days	85FS-1d	NA	6/29/18	8/31/18	ETS
89	2.2.3.2.2.2	Technical Specifications and Configuration Guide for CAASPP Testing	45 days	NA	NA	6/29/18	8/31/18	ETS
90	2.2.3.2.2.2.1	Revise Technical Specifications and Configuration Guide for CAASPP Testing	45 days	85FS-1d	NA	6/29/18	8/31/18	ETS
91	2.2.3.2.2.3	Interim Assessment User's Guide	45 days	NA	NA	6/29/18	8/31/18	ETS
92	2.2.3.2.2.3.1	Revise IA User Guide refresh	45 days	85FS-1d	NA	6/29/18	8/31/18	ETS
93	2.2.3.2.2.4	Guide to CAASPP Completion Status and Roster Management	45 days	NA	NA	6/29/18	8/31/18	ETS

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ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
94	2.2.3.2.2.4.1	Revise Guide to CAASPP Completion Status and Roster Management	45 days	85FS-1d	NA	6/29/18	8/31/18	ETS
95	2.2.3.2.2.5	Accessibility Guide for CAASPP Testing	76 days	NA	NA	6/29/18	10/16/18	ETS
96	2.2.3.2.2.5.1	Revise Accessibility Guide for CAASPP Testing	76 days	85FS-1d	NA	6/29/18	10/16/18	ETS
97	2.2.3.2.3	Manuals needed for Phase 2	60 days	NA	NA	10/9/18	1/7/19	ETS
98	2.2.3.2.3.1	Online Test Administration Manual for CAASPP Testing	60 days	NA	NA	10/9/18	1/7/19	ETS
99	2.2.3.2.3.1.1	Revise Online TAM	60 days	85FS+69d	NA	10/9/18	1/7/19	ETS
100	2.2.3.2.3.2	Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	60 days	NA	NA	10/9/18	1/7/19	ETS
101	2.2.3.2.3.2.1	Revise Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	60 days	85FS+69d	NA	10/9/18	1/7/19	ETS
102	2.2.3.2.4	Manuals needed for Phase 3	60 days	NA	NA	1/7/19	3/29/19	ETS
103	2.2.3.2.4.1	Online Reporting System User Guide for California	60 days	NA	NA	1/7/19	3/29/19	ETS
104	2.2.3.2.4.1.1	Revise Online Reporting System User Guide for California	60 days	85FS+128d	NA	1/7/19	3/29/19	ETS
105	2.2.3.2.4.2	CAASPP Security Incidents and Appeals Procedure Guide	60 days	NA	NA	1/7/19	3/29/19	ETS
106	2.2.3.2.4.2.1	Revise Security and Test Administration Procedure Guide	60 days	85FS+128d	NA	1/7/19	3/29/19	ETS
107	2.2.3.2.4.3	CAASPP Post-Test Guide	60 days	NA	NA	1/7/19	3/29/19	ETS
108	2.2.3.2.4.3.1	Revise CAASPP Post-Test Guide	60 days	85FS+128d	NA	1/7/19	3/29/19	ETS
109	2.2.4	CalTAC Support	253 days	NA	NA	7/2/18	6/28/19	ETS
110	2.2.4.1	Train CalTAC staff on the CAASPP program	10 days	NA	111SS	7/2/18	7/16/18	ETS
111	2.2.4.2	Establish help desk technical phone, web chat and email support	10 days	110SS	112	7/2/18	7/16/18	ETS
112	2.2.4.3	Perform technology support site visits as needed	243 days	111	NA	7/17/18	6/28/19	ETS
113	2.2.5	Data Driven Improvement	236 days	NA	NA	5/1/18	4/5/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
114	2.2.5.1	Post-Test Focus Groups for Administrators	82 days	NA	NA	5/1/18	8/24/18	ETS
115	2.2.5.1.1	Prepare materials for Post-Test Focus Groups	25 days	5	116	5/1/18	6/5/18	ETS
116	2.2.5.1.2	Review and approve materials for post-test focus groups	10 days	115	117	6/6/18	6/19/18	CDE
117	2.2.5.1.3	Conduct Sacramento focus group	2 days	116	118FS+3d	6/20/18	6/21/18	ETS
118	2.2.5.1.4	Conduct Southern CA focus group	2 days	117FS+3d	119	6/27/18	6/28/18	ETS
119	2.2.5.1.5	Compile results and recommended program improvements to CDE	40 days	118	NA	6/29/18	8/24/18	ETS
120	2.2.5.2	Test Coordinator Advisory Group	162 days	NA	NA	8/15/18	4/5/19	ETS
121	2.2.5.2.1	Prepare materials for Test Coordinator Advisory Group 1	20 days	NA	122	8/15/18	9/12/18	ETS
122	2.2.5.2.2	Conduct September Advisory Group 1	1 day	121	123, 124FS+80d	9/13/18	9/13/18	ETS
123	2.2.5.2.3	Compile results and recommended program improvements to CDE	40 days	122	NA	9/14/18	11/8/18	ETS
124	2.2.5.2.4	Prepare materials for Test Coordinator Advisory Group 2	20 days	122FS+80d	125	1/11/19	2/7/19	ETS
125	2.2.5.2.5	Conduct February Advisory Group 2	1 day	124	126	2/8/19	2/8/19	ETS
126	2.2.5.2.6	Compile results and recommended program improvements to CDE	40 days	125	NA	2/11/19	4/5/19	ETS
127	2.2.5.3	Focus Group Meetings	100 days	NA	NA	10/1/18	2/22/19	ETS
128	2.2.5.3.1	Prepare materials for caaspp.org Focus Groups	20 days	NA	129	10/1/18	10/26/18	ETS
129	2.2.5.3.2	Conduct additional Focus Groups as requested	40 days	128	130	10/29/18	12/27/18	ETS
130	2.2.5.3.3	Compile results and recommended program improvements to CDE	40 days	129	NA	12/28/18	2/22/19	ETS
131	2.2.5.4	ETS provides updated draft of concurrent usage monitoring plan to CDE	0 days	NA	NA	10/1/18	10/1/18	ETS
132	2.3	CAASPP Assessment System Releases	371 days	NA	NA	2/5/18	7/19/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
133	2.3.1	Operational Test Administration Begins	0 days	NA	466FS+40d, 205, 206, 207, 208, 476FS+100d, 488FS+180d, 203, 212FS+64d, 213FS+64d, 214FS+64d	7/1/18	7/1/18	ETS
134	2.3.2	Testing Systems	292 days	NA	NA	2/5/18	4/1/19	ETS
135	2.3.2.1	Assessment Delivery System Releases	292 days	NA	NA	2/5/18	4/1/19	ETS
136	2.3.2.1.1	Phase 1 Release (Administration roll over and Interim Assessment launch)	149 days	NA	NA	2/5/18	9/5/18	ETS
137	2.3.2.1.1.1	Preparation	30 days	NA	NA	2/5/18	3/19/18	ETS
138	2.3.2.1.1.1.1	Meet with CDE to review requirements	20 days	NA	139FS-10d	2/5/18	3/5/18	ETS
139	2.3.2.1.1.1.2	Work with CDE to schedule and communicate system downtimes	20 days	138FS-10d	141	2/20/18	3/19/18	ETS
140	2.3.2.1.1.2	Functional Requirements	40 days	NA	NA	3/20/18	5/14/18	ETS
141	2.3.2.1.1.2.1	Create functional requirements and submit to CDE for review	25 days	139	142	3/20/18	4/23/18	ETS
142	2.3.2.1.1.2.2	CDE reviews functional requirements	10 days	141	143	4/24/18	5/7/18	ETS
143	2.3.2.1.1.2.3	Work with CDE to finalize functional requirements	5 days	142	145, 160	5/8/18	5/14/18	ETS
144	2.3.2.1.1.3	Development and Testing	50 days	NA	NA	5/15/18	7/25/18	ETS
145	2.3.2.1.1.3.1	System development	40 days	143	146FS-20d	5/15/18	7/11/18	ETS
146	2.3.2.1.1.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	145FS-20d	148	6/13/18	7/25/18	ETS
147	2.3.2.1.1.4	User Acceptance Testing	25 days	NA	NA	7/26/18	8/29/18	ETS
148	2.3.2.1.1.4.1	Internal ETS/AIR UAT	5 days	146, 392	149	7/26/18	8/1/18	ETS
149	2.3.2.1.1.4.2	Internal fix cycle	5 days	148	150	8/2/18	8/8/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
150	2.3.2.1.1.4.3	CDE initial UAT	5 days	149	151	8/9/18	8/15/18	CDE
151	2.3.2.1.1.4.4	Fix cycle	5 days	150	152	8/16/18	8/22/18	ETS
152	2.3.2.1.1.4.5	CDE final UAT	5 days	151	154	8/23/18	8/29/18	CDE
153	2.3.2.1.1.5	Phase 1 Go-Live	4 days	NA	NA	8/30/18	9/5/18	ETS
154	2.3.2.1.1.5.1	Conduct release review call with CDE	1 day	152	155	8/30/18	8/30/18	ETS
155	2.3.2.1.1.5.2	CDE approves release	0 days	154	156	8/30/18	8/30/18	CDE
156	2.3.2.1.1.5.3	Software launch	3 days	155	157	8/31/18	9/5/18	ETS
157	2.3.2.1.1.5.4	Software go-live	0 days	156	NA	9/5/18	9/5/18	ETS
158	2.3.2.1.2	Phase 2 Release (Summative Assessment launch)	163 days	NA	NA	5/15/18	1/8/19	ETS
159	2.3.2.1.2.1	Preparation	30 days	NA	NA	5/15/18	6/26/18	ETS
160	2.3.2.1.2.1.1	Meet with CDE to review requirements	20 days	143	161FS-10d	5/15/18	6/12/18	ETS
161	2.3.2.1.2.1.2	Work with CDE to schedule and communicate system downtimes	20 days	160FS-10d	163	5/30/18	6/26/18	ETS
162	2.3.2.1.2.2	Functional Requirements	54 days	NA	NA	6/27/18	9/12/18	ETS
163	2.3.2.1.2.2.1	Create functional requirements and submit to CDE for review	39 days	161	164	6/27/18	8/21/18	ETS
164	2.3.2.1.2.2.2	CDE reviews functional requirements	10 days	163	165	8/22/18	9/5/18	ETS
165	2.3.2.1.2.2.3	Work with CDE to finalize functional requirements	5 days	164	167, 182	9/6/18	9/12/18	ETS
166	2.3.2.1.2.3	Development and Testing	50 days	NA	NA	9/13/18	11/21/18	ETS
167	2.3.2.1.2.3.1	System development	40 days	165	168FS-20d	9/13/18	11/7/18	ETS
168	2.3.2.1.2.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	167FS-20d	170	10/11/18	11/21/18	ETS
169	2.3.2.1.2.4	User Acceptance Testing	25 days	NA	NA	11/26/18	1/2/19	ETS
170	2.3.2.1.2.4.1	Internal ETS/AIR UAT	5 days	NA#	171	11/26/18	11/30/18	ETS
171	2.3.2.1.2.4.2	Internal fix cycle	5 days	170	172	12/3/18	12/7/18	ETS
172	2.3.2.1.2.4.3	CDE initial UAT	5 days	171	173	12/10/18	12/14/18	CDE
173	2.3.2.1.2.4.4	Fix cycle	5 days	172	174	12/17/18	12/21/18	ETS
174	2.3.2.1.2.4.5	CDE final UAT	5 days	173	176	12/26/18	1/2/19	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
175	2.3.2.1.2.5	Phase 2 Go-Live	4 days	NA	NA	1/3/19	1/8/19	ETS
176	2.3.2.1.2.5.1	Conduct release review call with CDE	1 day	174	177	1/3/19	1/3/19	ETS
177	2.3.2.1.2.5.2	CDE approves release	0 days	176	178	1/3/19	1/3/19	CDE
178	2.3.2.1.2.5.3	Software launch	3 days	177	179	1/4/19	1/8/19	ETS
179	2.3.2.1.2.5.4	Software go-live	0 days	178	217FS-1d, 222, 400	1/8/19	1/8/19	ETS
180	2.3.2.1.3	Phase 3 Release (Reporting System)	138 days	NA	NA	9/13/18	4/1/19	ETS
181	2.3.2.1.3.1	Preparation	30 days	NA	NA	9/13/18	10/24/18	ETS
182	2.3.2.1.3.1.1	Meet with CDE to review requirements	20 days	165	183FS-10d	9/13/18	10/10/18	ETS
183	2.3.2.1.3.1.2	Work with CDE to schedule and communicate system downtimes	20 days	182FS-10d	185	9/27/18	10/24/18	ETS
184	2.3.2.1.3.2	Functional Requirements	40 days	NA	NA	10/25/18	12/21/18	ETS
185	2.3.2.1.3.2.1	Create functional requirements and submit to CDE for review	25 days	183	186	10/25/18	11/30/18	ETS
186	2.3.2.1.3.2.2	CDE reviews functional requirements	10 days	185	187	12/3/18	12/14/18	ETS
187	2.3.2.1.3.2.3	Work with CDE to finalize functional requirements	5 days	186	189	12/17/18	12/21/18	ETS
188	2.3.2.1.3.3	Development and Testing	39 days	NA	NA	12/26/18	2/19/19	ETS
189	2.3.2.1.3.3.1	System development	34 days	187	190FS-20d	12/26/18	2/12/19	ETS
190	2.3.2.1.3.3.2	Software and performance testing (provide performance testing results to CDE)	25 days	189FS-20d	192	1/16/19	2/19/19	ETS
191	2.3.2.1.3.4	User Acceptance Testing	25 days	NA	NA	2/20/19	3/26/19	ETS
192	2.3.2.1.3.4.1	Internal ETS/AIR UAT	5 days	190	193	2/20/19	2/26/19	ETS
193	2.3.2.1.3.4.2	Internal fix cycle	5 days	192	194	2/27/19	3/5/19	ETS
194	2.3.2.1.3.4.3	CDE initial UAT	5 days	193	195	3/6/19	3/12/19	CDE
195	2.3.2.1.3.4.4	Fix cycle	5 days	194	196	3/13/19	3/19/19	ETS
196	2.3.2.1.3.4.5	CDE final UAT	5 days	195	198	3/20/19	3/26/19	CDE
197	2.3.2.1.3.5	Phase 3 Go-Live	4 days	NA	NA	3/27/19	4/1/19	ETS
198	2.3.2.1.3.5.1	Conduct release review call with CDE	1 day	196	199	3/27/19	3/27/19	ETS
199	2.3.2.1.3.5.2	CDE approves release	0 days	198	200	3/27/19	3/27/19	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
200	2.3.2.1.3.5.3	Software launch	3 days	199	201	3/28/19	4/1/19	ETS
201	2.3.2.1.3.5.4	Software go-live	0 days	200	459	4/1/19	4/1/19	ETS
202	2.3.3	Interim Assessment Registration, Test Content and Ancillaries	47 days	NA	NA	7/1/18	9/6/18	ETS
203	2.3.3.1	New enhanced test packages available from Smarter Balanced	0 days	133	204	7/1/18	7/1/18	ETS
204	2.3.3.2	Process new test packages	20 days	203	209, 210	7/2/18	7/30/18	ETS
205	2.3.3.3	Configure Smarter Balanced System User Guide for CA	40 days	133	NA	7/2/18	8/27/18	ETS
206	2.3.3.4	Configure Smarter Balanced Scoring Guide for CA	40 days	133	NA	7/2/18	8/27/18	ETS
207	2.3.3.5	Configure Smarter Balanced System Infrastructure Guide for CA	40 days	133	NA	7/2/18	8/27/18	ETS
208	2.3.3.6	Configure Smarter Balanced System Training Workbook for CA	40 days	133	NA	7/2/18	8/27/18	ETS
209	2.3.3.7	Updated Interim Comprehensive Assessment (summative clone) (ICA) launched	1 day	204, 157	NA	9/6/18	9/6/18	ETS
210	2.3.3.8	Updated Interim Assessment Blocks (IAB) launched	1 day	204, 157	NA	9/6/18	9/6/18	ETS
211	2.3.4	Summative Computer Based Assessments	200 days	NA	NA	10/1/18	7/15/19	ETS
212	2.3.4.1	Summative content packages available for CAT	0 days	133FS+64d	215, 219	10/1/18	10/1/18	ETS
213	2.3.4.2	Summative content packages available for PT	0 days	133FS+64d	215	10/1/18	10/1/18	ETS
214	2.3.4.3	Summative test packages available for CAT and PT	0 days	133FS+64d	215	10/1/18	10/1/18	ETS
215	2.3.4.4	Import and QC test packages	20 days	212, 213, 214	217	10/2/18	10/29/18	ETS
216	2.3.4.5	Update enrollment/test administration information	20 days	217SS-40d	NA	11/6/18	12/5/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
217	2.3.4.6	Administer summative assessments (Smarter Balanced ELA/Math, ELA/Math Alternate)	135 days	215, 179FS-1d	216SS-40d, 458SS+20d, 224SS+5d, 441FS-45d, 437SS+5d, 449SS+5d	1/8/19	7/15/19	ETS
218	2.3.5	Summative Paper/Pencil Testing	204 days	NA	NA	10/2/18	7/19/19	ETS
219	2.3.5.1	Receive paper-based tests from Smarter Balanced	1 day	212	228, 220	10/2/18	10/2/18	ETS
220	2.3.5.2	Add covers	10 days	219	221	10/3/18	10/16/18	ETS
221	2.3.5.3	Print all summative operational paper tests	30 days	220	223	10/17/18	11/29/18	ETS
222	2.3.5.4	Receive material orders	133 days	179	223SS+1d, 229SS+1d	1/9/19	7/12/19	ETS
223	2.3.5.5	Distribute paper tests as needed	133 days	222SS+1d, 221	NA	1/10/19	7/15/19	ETS
224	2.3.5.6	Receive paper tests	133 days	217SS+5d	225SS	1/15/19	7/18/19	ETS
225	2.3.5.7	Scan paper tests	133 days	224SS	226SS+1d	1/15/19	7/18/19	ETS
226	2.3.5.8	Conduct resolutions on paper tests	133 days	225SS+1d	437SS+5d, 449SS+5d	1/16/19	7/19/19	ETS
227	2.3.5.9	Special Versions	199 days	NA	NA	10/3/18	7/15/19	ETS
228	2.3.5.9.1	Produce large print & Braille	40 days	219	229	10/3/18	11/29/18	ETS
229	2.3.5.9.2	Deliver large print and Braille as requested	133 days	228, 222SS+1d	NA	1/10/19	7/15/19	ETS
230	2.4	CAASPP Expansion Assessments	1038 days	NA	NA	1/4/16	2/10/20	ETS
231	2.4.1	CSA	560 days	NA	NA	11/30/17	2/10/20	ETS
232	2.4.1.1	2018-19 Fall Field Test	219 days	NA	NA	11/30/17	10/12/18	ETS
233	2.4.1.1.1	Field Test forms development	104 days	NA	NA	11/30/17	5/1/18	ETS
234	2.4.1.1.2	Develop CSA content specific Achievement Level Descriptors (ALDs)	97 days	NA	NA	3/5/18	7/19/18	ETS
235	2.4.1.1.3	2019–20 Field Test Admin	20 days	NA	240	9/17/18	10/12/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
236	2.4.1.2	2018-19 Field Test Post-Admin Activities	190 days	NA	NA	7/9/18	4/8/19	ETS
237	2.4.1.2.1	Develop, administer and analyze post-test survey	64 days	NA	239, 244	7/9/18	10/5/18	ETS, CDE
238	2.4.1.2.2	Field Test Technical Report development	115 days	NA	244FS-6d	10/23/18	4/8/19	ETS
239	2.4.1.2.3	Field test data review meeting	25 days	237	NA	10/8/18	11/9/18	ETS
240	2.4.1.2.4	Field test item analysis	50 days	235	241	10/15/18	12/27/18	ETS
241	2.4.1.2.5	Standards Setting	40 days	240	NA	12/28/18	2/22/19	ETS
242	2.4.1.3	2018-19 Spring Operational Administration	412 days	NA	NA	7/5/18	2/10/20	ETS
243	2.4.1.3.1	Prepare and conduct operational rangefinding meeting	100 days	NA	NA	7/5/18	11/26/18	ETS
244	2.4.1.3.2	First Operational Administration (No CRs)	76 days	238FS-6d, 237	246FS+10d, 245SS+2d, 249FS-5d	4/1/19	7/15/19	ETS
245	2.4.1.3.3	Operational scoring	93 days	244SS+2d	NA	4/3/19	8/9/19	ETS
246	2.4.1.3.4	2019 Operational Test Data Review Meeting (with Educators)	20 days	244FS+10d	247, 248	7/30/19	8/26/19	ETS, CDE
247	2.4.1.3.5	Develop and deliver Operational Test Analysis Report 2019	30 days	246	250	8/27/19	10/7/19	ETS
248	2.4.1.3.6	Develop and distribute Operational Test Post-Test Survey 2019	30 days	246	NA	8/27/19	10/7/19	ETS
249	2.4.1.3.7	Prepare and conduct Standard Setting	20 days	244FS-5d	NA	7/9/19	8/5/19	ETS
250	2.4.1.3.8	2018-19 Technical Report	90 days	247	NA	10/8/19	2/10/20	ETS
251	2.4.2	CAA Science	1033 days	NA	NA	1/4/16	2/3/20	ETS
252	2.4.2.1	Start	0 days	NA	256FS+425d, 265FS+452d, 277FS+531d, 278FS+290d, 279FS+310d, 280FS+310d	1/4/16	1/4/16	ETS
253	2.4.2.2	Test Design Team meeting	1 day	NA	NA	6/1/18	6/1/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
254	2.4.2.3	Field Test Planning & Item Development	426 days	NA	NA	3/3/17	11/8/18	ETS
255	2.4.2.3.1	Item Development Plan & Item and Content Specifications	58 days	NA	NA	9/14/17	12/6/17	ETS
256	2.4.2.3.1.1	Draft IDP & Item and Content Specs	20 days	252FS+425d	257	9/14/17	10/11/17	ETS
257	2.4.2.3.1.2	CDE Review of IDP & Item and Content Specs	20 days	256	258	10/12/17	11/8/17	CDE
258	2.4.2.3.1.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	18 days	257	259	11/9/17	12/6/17	ETS
259	2.4.2.3.1.4	Complete IDP & Item and Content Specs	0 days	258	269, 282	12/6/17	12/6/17	ETS
260	2.4.2.3.2	Item Writer Workshop	70 days	NA	NA	9/7/17	12/15/17	ETS
261	2.4.2.3.2.1	Develop and finalize item writer workshop plan	15 days	NA	NA	9/7/17	9/27/17	ETS
262	2.4.2.3.2.2	Develop and finalize item writer workshop materials	37 days	NA	NA	10/5/17	11/28/17	ETS
263	2.4.2.3.2.3	Conduct Item Writer Workshop	2 days	NA	269	12/14/17	12/15/17	ETS
264	2.4.2.3.3	Deliver Field Test Plan	60 days	NA	NA	10/23/17	1/22/18	ETS
265	2.4.2.3.3.1	Draft Field Test Plan	20 days	252FS+452d	266	10/23/17	11/17/17	ETS
266	2.4.2.3.3.2	Work with CDE to Finalize Field Test Plan	40 days	265	282	11/20/17	1/22/18	ETS
267	2.4.2.3.4	CDE approval on new Online Format of embedded PTs	0 days	NA	298FS+45d	11/20/17	11/20/17	CDE
268	2.4.2.3.5	Item Development	112 days	NA	NA	12/18/17	5/30/18	ETS
269	2.4.2.3.5.1	Draft embedded PTs	80 days	259, 263	270	12/18/17	4/13/18	ETS
270	2.4.2.3.5.2	Author embedded PT questions in IBIS	10 days	269	271	4/16/18	4/27/18	ETS
271	2.4.2.3.5.3	Review Pilot 2 observations and report to AD necessary adjustments to drafted PTs	5 days	270	272	4/30/18	5/4/18	ETS
272	2.4.2.3.5.4	Prepare materials for Item Review meeting	10 days	271	273	5/7/18	5/18/18	ETS
273	2.4.2.3.5.5	Finalize materials	2 days	272	274	5/21/18	5/22/18	ETS
274	2.4.2.3.5.6	CDE receives Performance Tasks for preview	0 days	273	275, 282	5/22/18	5/22/18	CDE
275	2.4.2.3.5.7	Apply final changes to Embedded PTs pre-IRC based on feedback from CDE Previews	5 days	274	282	5/23/18	5/30/18	ETS
276	2.4.2.3.6	CAA Item Review Committee meeting	328 days	NA	NA	3/3/17	6/21/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
277	2.4.2.3.6.1	Develop and finalize with CDE the Plan document for CAA Science Item Review	50 days	252FS+531d	282, 281FS-30d	2/20/18	4/30/18	ETS
278	2.4.2.3.6.2	Develop Meeting Specs (participant count, meeting date, venue confirmation, etc.)	48 days	252FS+290d	282	3/3/17	5/9/17	ETS
279	2.4.2.3.6.3	Construct Invitee list for CAA Item Review	8 days	252FS+310d	NA	3/31/17	4/11/17	ETS
280	2.4.2.3.6.4	Develop Invitation letters for CAA Item Review	39 days	252FS+310d	282	3/31/17	5/24/17	ETS
281	2.4.2.3.6.5	Work with CDE to Develop Meeting Materials	65 days	277FS-30d	282	3/20/18	6/19/18	ETS, CDE
282	2.4.2.3.6.6	CAA Science Item Review	2 days	NA#	284, 286, 299FS-30d, 300FS-30d, 301FS+23d, 302FS+30d	6/20/18	6/21/18	ETS
283	2.4.2.3.7	Item Finalization (Post-IRC)	98 days	NA	NA	6/22/18	11/8/18	ETS
284	2.4.2.3.7.1	Embedded PT Scaffolding Activities	76 days	282	285FS-15d	6/22/18	10/9/18	ETS
285	2.4.2.3.7.2	508 tagging	37 days	284FS-15d	305, 304	9/19/18	11/8/18	ETS
286	2.4.2.3.7.3	Update Embedded PTs in IBIS (includes questions, response fields, and survey)	76 days	282	289	6/22/18	10/9/18	ETS
287	2.4.2.4	AIR TDS Production	61 days	NA	NA	10/9/18	1/9/19	ETS
288	2.4.2.4.1	Construct TDS items for AIR	61 days	NA	NA	10/9/18	1/9/19	ETS
289	2.4.2.4.1.1	IBIS items Locked	0 days	286	290	10/9/18	10/9/18	ETS
290	2.4.2.4.1.2	Prepare IBIS items for export	5 days	289	291	10/10/18	10/16/18	ETS
291	2.4.2.4.1.3	Submit IBIS items to AIR	0 days	290	292	10/16/18	10/16/18	ETS
292	2.4.2.4.1.4	AIR returns ITS IDs for items	3 days	291	293	10/17/18	10/19/18	ETS
293	2.4.2.4.1.5	Provide sequence IDs and return to AIR	1 day	292	294	10/22/18	10/22/18	ETS
294	2.4.2.4.1.6	Confirm sequences at AIR	1 day	293	295	10/23/18	10/23/18	ETS
295	2.4.2.4.1.7	Content Lockdown	0 days	294	296	10/23/18	10/23/18	ETS
296	2.4.2.4.1.8	Embedded PTs available in TDS to LEAs (January 2019 Phase 2 IT Release)	0 days	295, 301FS+1d, 302	305FS-100d	1/9/19	1/9/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
297	2.4.2.5	Administration Support Materials	237 days	NA	NA	1/30/18	1/8/19	ETS
298	2.4.2.5.1	Develop Training Test	161 days	267FS+45d	305	1/30/18	9/17/18	ETS
299	2.4.2.5.2	Develop Pre-Administration Support Video	96 days	282FS-30d	305	5/10/18	9/25/18	ETS
300	2.4.2.5.3	Develop Pre-Administration Test Examiner Online Training Module	96 days	282FS-30d	305	5/10/18	9/25/18	ETS
301	2.4.2.5.4	Develop TE TDS Guide (for OTAM)	113 days	282FS+23d	296FS+1d	7/26/18	1/8/19	ETS
302	2.4.2.5.5	Develop TE TDS Video	96 days	282FS+30d	296	8/6/18	12/20/18	ETS
303	2.4.2.6	Field Test Administration	185 days	NA	NA	11/8/18	8/1/19	ETS
304	2.4.2.6.1	Non-secure standard, topic, and activity information available to LEAs	0 days	285	NA	11/8/18	11/8/18	ETS
305	2.4.2.6.2	Secure test content available to LEA	0 days	285, 296FS-100d, 298, 299, 300	306FS+147d, 308FS+40d, 313FS+40d	1/9/19	1/9/19	ETS
306	2.4.2.6.3	Pilot administration ends (mid-July)	0 days	305FS+147d	NA	8/1/19	8/1/19	ETS
307	2.4.2.7	Results	239 days	NA	NA	3/6/19	2/3/20	ETS
308	2.4.2.7.1	Develop and Release Test Examiner Survey	47 days	305FS+40d	310	3/6/19	5/9/19	ETS
309	2.4.2.7.2	Pilot Observations	127 days	NA	NA	3/6/19	8/29/19	ETS
310	2.4.2.7.2.1	Contact and determine schools for observation	10 days	308	311	5/10/19	5/23/19	ETS
311	2.4.2.7.2.2	Identify observer pool	2 days	310	312	5/24/19	5/27/19	ETS
312	2.4.2.7.2.3	Secure training logistics	10 days	311	314	5/28/19	6/10/19	ETS
313	2.4.2.7.2.4	Develop Training Protocols	56 days	305FS+40d	314	3/6/19	5/22/19	ETS
314	2.4.2.7.2.5	Observer Training	3 days	312, 313	315	6/11/19	6/13/19	ETS
315	2.4.2.7.2.6	Conduct Pilot Observations	20 days	314	317	6/14/19	7/11/19	ETS
316	2.4.2.7.2.7	Observation Results	35 days	NA	NA	7/12/19	8/29/19	ETS
317	2.4.2.7.2.7.1	Analysis of Results	10 days	315	318, 322	7/12/19	7/25/19	ETS
318	2.4.2.7.2.7.2	Draft memo of Observation Results	20 days	317	319	7/26/19	8/22/19	ETS
319	2.4.2.7.2.7.3	Finalize memo of Observation Results	5 days	318	320	8/23/19	8/29/19	ETS
320	2.4.2.7.2.7.4	Submit memo of Observation Results to CDE	0 days	319	NA	8/29/19	8/29/19	ETS
321	2.4.2.7.3	Data Review	2 days	NA	NA	7/26/19	7/29/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
322	2.4.2.7.3.1	Conduct Field Test Data Review meeting	2 days	317	NA	7/26/19	7/29/19	ETS
323	2.4.2.7.4	Technical Report	110 days	NA	NA	9/3/19	2/3/20	ETS
324	2.4.2.7.4.1	Draft Technical Report using P2 data and CDE feedback on table of contents	50 days	NA	325	9/3/19	11/11/19	ETS
325	2.4.2.7.4.2	Editorial Review of the Technical Report	5 days	324	326	11/12/19	11/18/19	ETS
326	2.4.2.7.4.3	CDE Review of Technical Report	40 days	325	327	11/19/19	1/13/20	CDE
327	2.4.2.7.4.4	Apply changes to Technical Report based on CDE feedback and submit to CDE	15 days	326	328	1/14/20	2/3/20	ETS
328	2.4.2.7.4.5	CAA for Science Technical Report completed	0 days	327	NA	2/3/20	2/3/20	ETS
329	2.4.3	CAA ELA/Math	463 days	NA	NA	8/11/17	6/12/19	ETS
330	2.4.3.1	2018-19 CAA ELA/Math	463 days	NA	NA	8/11/17	6/12/19	ETS
331	2.4.3.1.1	Item Development Plan	35 days	NA	NA	8/11/17	9/29/17	ETS
332	2.4.3.1.1.1	Update annual Item Development Plan	20 days	NA	333	8/11/17	9/8/17	ETS
333	2.4.3.1.1.2	CDE reviews and approves Item Development Plan	15 days	332	NA	9/11/17	9/29/17	CDE
334	2.4.3.1.2	Item Writing Workshop	46 days	NA	NA	10/2/17	12/6/17	ETS
335	2.4.3.1.2.1	Update Item Writing Workshop Plan	20 days	NA	336	10/2/17	10/27/17	ETS
336	2.4.3.1.2.2	CDE reviews and approves Item Writing Workshop Plan	15 days	335	337	10/30/17	11/17/17	CDE
337	2.4.3.1.2.3	Prepare for Item Writing Workshop	10 days	336	338	11/20/17	12/5/17	ETS
338	2.4.3.1.2.4	Conduct Item Writing Workshop	1 day	337	340	12/6/17	12/6/17	ETS
339	2.4.3.1.3	New Embedded Field Test Item Development	146 days	NA	NA	12/7/17	7/9/18	ETS
340	2.4.3.1.3.1	Develop and review Alternate Assessment ELA/Math Assessment items	112 days	338	341	12/7/17	5/18/18	ETS
341	2.4.3.1.3.2	CDE reviews new Alternate Assessment ELA/Math items	10 days	340	342	5/21/18	6/4/18	CDE
342	2.4.3.1.3.3	External committee item review meetings	4 days	341	343	6/5/18	6/8/18	ETS
343	2.4.3.1.3.4	ETS reviews and approves new items	20 days	342	346	6/11/18	7/9/18	CDE
344	2.4.3.1.4	Test Design Team meeting	1 day	NA	NA	6/1/18	6/1/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
345	2.4.3.1.5	Forms Development	86 days	NA	NA	7/10/18	11/7/18	ETS
346	2.4.3.1.5.1	Develop CAA ELA/Math test forms and DFAs	35 days	343	348, 347	7/10/18	8/27/18	ETS
347	2.4.3.1.5.2	CDE reviews CAA ELA/Math test forms and DFAs	10 days	346	NA	8/28/18	9/11/18	CDE
348	2.4.3.1.5.3	Develop adaptive routing score thresholds	20 days	346	349	8/28/18	9/25/18	ETS
349	2.4.3.1.5.4	Deliver routing thresholds to AIR for configuration	1 day	348	350, 352	9/26/18	9/26/18	ETS
350	2.4.3.1.5.5	AIR TDS configuration	30 days	349	170	9/27/18	11/7/18	ETS
351	2.4.3.1.6	Training Test and DFA Content Refresh	36 days	NA	NA	9/27/18	11/15/18	ETS
352	2.4.3.1.6.1	Propose training test edits/replacements to CDE	1 day	349	353	9/27/18	9/27/18	ETS
353	2.4.3.1.6.2	Edit and update training tests and DFAs	15 days	352	354	9/28/18	10/18/18	ETS
354	2.4.3.1.6.3	CDE reviews training test and DFAs	10 days	353	355	10/19/18	11/1/18	CDE
355	2.4.3.1.6.4	TDS configuration for updated training tests and DFAs	10 days	354	170	11/2/18	11/15/18	ETS
356	2.4.3.1.7	Data Review	2 days	NA	NA	6/11/19	6/12/19	ETS
357	2.4.3.1.7.1	Conduct Data Review Meeting	2 days	NA	NA	6/11/19	6/12/19	ETS
358	2.4.4	CAST	622 days	NA	NA	7/6/17	12/16/19	ETS
359	2.4.4.1	Item Development	279 days	NA	NA	7/6/17	8/14/18	ETS
360	2.4.4.1.1	Item and content specifications	279 days	NA	NA	7/6/17	8/14/18	ETS
361	2.4.4.1.1.1	Create item specifications by PE; flow to CDE for review	5 mons	1	362SS+10d, 370SS+30d	7/6/17	11/27/17	ETS
362	2.4.4.1.1.2	Review and approve item specifications by PE	5 mons	361SS+10d	363	7/20/17	12/11/17	CDE
363	2.4.4.1.1.3	Review and update the item specifications	10 days	362	NA	8/1/18	8/14/18	ETS
364	2.4.4.1.2	Item Development Plan	58 days	NA	NA	8/1/17	10/20/17	ETS
365	2.4.4.1.2.1	Draft IDP & Item and Content Specs	20 days	NA	366	8/1/17	8/28/17	ETS
366	2.4.4.1.2.2	CDE Review of IDP & Item and Content Specs	20 days	365	367	8/29/17	9/26/17	CDE
367	2.4.4.1.2.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	18 days	366	368	9/27/17	10/20/17	ETS
368	2.4.4.1.2.4	Complete IDP & Item and Content Specs	0 days	367	NA	10/20/17	10/20/17	ETS
369	2.4.4.1.3	Item Writer Training	48 days	NA	NA	8/17/17	10/24/17	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
370	2.4.4.1.3.1	Update Item Writer training materials	15 days	361SS+30d	371SS+5d, 373	8/17/17	9/7/17	ETS
371	2.4.4.1.3.2	Identify stakeholders and draft email invitation for Item Writer training	10 days	370SS+5d	372	8/24/17	9/7/17	ETS
372	2.4.4.1.3.3	CDE reviews and approves stakeholders and email invitation to apply for Item Writer training	10 days	371	374	9/8/17	9/21/17	CDE
373	2.4.4.1.3.4	CDE reviews and approves Item Writer training materials	10 days	370	375	9/8/17	9/21/17	CDE
374	2.4.4.1.3.5	ETS recruits item writer training participants	15 days	372	375FS+5d	9/22/17	10/12/17	ETS
375	2.4.4.1.3.6	ETS conducts Item Writer training	3 days	374FS+5d, 373	377FS-35d	10/20/17	10/24/17	ETS
376	2.4.4.1.4	Operational Test Items	135 days	NA	NA	9/6/17	3/22/18	ETS
377	2.4.4.1.4.1	Develop items and flow to CDE for review	100 days	375FS-35d	378SS+20d	9/6/17	1/31/18	ETS
378	2.4.4.1.4.2	Review items as received (review for information only)	90 days	377SS+20d	379FS+2w	10/4/17	2/14/18	CDE
379	2.4.4.1.4.3	Item content and bias committee review	5 days	378FS+2w	380	3/2/18	3/8/18	ETS, CDE
380	2.4.4.1.4.4	Perform post-committee review reconciliation	10 days	379	382	3/9/18	3/22/18	ETS, CDE
381	2.4.4.2	Test Construction	133 days	NA	NA	3/23/18	10/1/18	ETS
382	2.4.4.2.1	Create item blocks for operational forms, practice test forms, and training test	5 days	380	388	3/23/18	3/29/18	ETS
383	2.4.4.2.2	Finalize test forms for Practice Test and Training Test; perform summative reviews; release content to AIR	20 days	389	384, 385	6/4/18	6/29/18	ETS
384	2.4.4.2.3	AIR content lockdown for Practice Test and Training Test	0 days	383	392	7/1/18	7/1/18	ETS
385	2.4.4.2.4	Finalize test forms for Summative Operational Test; perform summative reviews; release content to AIR	30 days	383	386	7/2/18	8/13/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
386	2.4.4.2.5	AIR content lockdown for Practice Test and Training Test	0 days	385	393	10/1/18	10/1/18	ETS
387	2.4.4.3	Accessibility Content	45 days	NA	NA	3/30/18	6/1/18	ETS
388	2.4.4.3.1	Create and source accessibility content (Braille, ASL videos, translations, glossaries, etc)	45 days	382	389SS+35d	3/30/18	6/1/18	ETS
389	2.4.4.3.2	Review and approve accessibility content	10 days	388SS+35d	383	5/18/18	6/1/18	CDE
390	2.4.4.4	Test Design Team meeting	1 day	NA	NA	6/1/18	6/1/18	ETS
391	2.4.4.5	Integrate Test and Test Delivery System	91 days	NA	NA	7/2/18	11/7/18	ETS
392	2.4.4.5.1	Integrate Practice and Training Test forms with Test Delivery System; release for internal UAT	17 days	384	148	7/2/18	7/25/18	ETS
393	2.4.4.5.2	Integrate Summative Operational test forms with Test Delivery System; release for internal UAT	28 days	386	170	10/1/18	11/7/18	ETS
394	2.4.4.6	Content-level Achievement Level Descriptors (ALDs)	39 days	NA	NA	6/18/18	8/10/18	ETS
395	2.4.4.6.1	Educator panel meetings to write ALDs	3 days	1	396FS+2w	6/18/18	6/20/18	ETS
396	2.4.4.6.2	Review and approve content ALDs for submission to State Board of Education (SBE)	10 days	395FS+2w	397	7/6/18	7/19/18	CDE
397	2.4.4.6.3	Final refinements and any supporting materials needed for SBE	15 days	396	398	7/20/18	8/9/18	ETS
398	2.4.4.6.4	Submit content ALDs for November SBE meeting	1 day	397	NA	8/10/18	8/10/18	CDE
399	2.4.4.7	Training and Practice Tests available to schools	0 days	157	NA	9/5/18	9/5/18	ETS
400	2.4.4.8	Summative Operational Test Administration	133 days	179	402SS+60d	1/9/19	7/12/19	ETS
401	2.4.4.9	Human CR scoring	86 days	NA	NA	4/3/19	7/31/19	ETS
402	2.4.4.9.1	Prepare Rangefinding materials and provide to CDE	10 days	400SS+60d	403	4/3/19	4/16/19	ETS
403	2.4.4.9.2	Review and approve Rangefinding materials	10 days	402	404FS+5d	4/17/19	4/30/19	CDE
404	2.4.4.9.3	Conduct Rangefinding meeting	1 day	403FS+5d	405	5/8/19	5/8/19	ETS
405	2.4.4.9.4	Configure scoring system with CAST materials	10 days	404	406	5/9/19	5/22/19	ETS
406	2.4.4.9.5	Human scoring of CRs	50 days	405	408SS+7d	5/23/19	7/31/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
407	2.4.4.10	Post-admin statistical analysis	13 days	NA	NA	6/3/19	6/19/19	ETS
408	2.4.4.10.1	Item and DIF analyses	8 days	406SS+7d	409, 415	6/3/19	6/12/19	ETS
409	2.4.4.10.2	Equating and score scale	5 days	408	411, 415	6/13/19	6/19/19	ETS
410	2.4.4.11	Standard Setting	19 days	NA	NA	6/20/19	7/16/19	ETS
411	2.4.4.11.1	Create standard setting materials	10 days	409	412FS+5d	6/20/19	7/3/19	ETS
412	2.4.4.11.2	Conduct standard setting	3 days	411FS+5d	413, 415	7/11/19	7/15/19	ETS
413	2.4.4.11.3	Prepare score cut tables for upload to scoring system	1 day	412	NA	7/16/19	7/16/19	ETS
414	2.4.4.12	Technical Report	110 days	NA	NA	7/16/19	12/16/19	ETS
415	2.4.4.12.1	Create technical report and submit to CDE for review	90 days	408, 409, 412	416	7/16/19	11/18/19	ETS
416	2.4.4.12.2	Review and approve technical report	10 days	415	417	11/19/19	12/2/19	CDE
417	2.4.4.12.3	Finalize and post technical report	10 days	416	NA	12/3/19	12/16/19	ETS
418	2.5	ELPAC Development and Administration	373 days	NA	NA	7/2/18	12/13/19	ETS
419	2.5.1	ELPAC CBA Development and Administration	223 days	NA	NA	8/13/18	6/27/19	ETS
420	2.5.1.1	Develop Usability Pilot and Cog Labs Plan/Design Document	75 days	NA	421SS	8/13/18	11/28/18	ETS
421	2.5.1.2	Convert PPT items for Usability Study	30 days	420SS	422, 425	8/13/18	9/24/18	ETS
422	2.5.1.3	Build Usability Pilot Forms	35 days	421	423	11/5/18	12/27/18	ETS
423	2.5.1.4	Administer CBA Usability Pilot and Cog Labs	8 days	422	424	4/4/19	4/15/19	ETS
424	2.5.1.5	Conduct Usability Pilot Analysis	39 days	423	NA	5/6/19	6/27/19	ETS
425	2.5.1.6	Develop and finalize items for 2020 embedded field testing	130 days	421	NA	10/8/18	4/12/19	ETS
426	2.5.2	ELPAC Paper Development and Administration	253 days	NA	NA	7/2/18	6/28/19	ETS
427	2.5.2.1	SA Paper Administration	86 days	NA	NA	2/1/19	5/31/19	ETS
428	2.5.2.2	IA Paper Administration	253 days	NA	NA	7/2/18	6/28/19	ETS
429	2.5.3	ELPAC ALT CBA Development	235 days	NA	NA	1/21/19	12/13/19	ETS
430	2.5.3.1	Develop pilot items and forms	120 days	NA	431	1/21/19	7/5/19	ETS
431	2.5.3.2	CDE review and UAT	40 days	430	432FS+40d	7/8/19	8/30/19	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
432	2.5.3.3	Administer ALT CBA Pilot	20 days	431FS+40d	434, 433SS	11/4/19	11/29/19	ETS
433	2.5.3.4	Conduct ALT Cog Labs	20 days	432SS	NA	11/4/19	11/29/19	ETS
434	2.5.3.5	Analyze ALT CBA Pilot results	10 days	432	NA	12/2/19	12/13/19	ETS
435	2.6	CAASPP Scoring	200 days	NA	NA	10/8/18	7/19/19	ETS
436	2.6.1	Summative Computer Based Assessments	124 days	NA	NA	1/23/19	7/15/19	ETS
437	2.6.1.1	Hand and AI scoring occurs	124 days	217SS+5d, 226SS+5d	438SS, 439SS	1/23/19	7/15/19	ETS
438	2.6.1.2	Perform scoring QC	124 days	437SS	NA	1/23/19	7/15/19	ETS
439	2.6.1.3	Final scoring occurs	124 days	437SS	484SS	1/23/19	7/15/19	ETS
440	2.6.2	Psychometric Analysis	18 days	NA	NA	5/14/19	6/6/19	ETS
441	2.6.2.1	Conduct Item Analysis of CAASPP Summative assessments	16 days	217FS-45d	442	5/14/19	6/4/19	ETS
442	2.6.2.2	Item Analysis Files delivered to CDE	1 day	441	443, 491	6/5/19	6/5/19	ETS
443	2.6.2.3	Facilitate Alternate Assessment Data Review meeting	1 day	442	NA	6/6/19	6/6/19	ETS
444	2.6.3	Appeals	200 days	NA	NA	10/8/18	7/19/19	ETS
445	2.6.3.1	Monitor appeals	200 days	NA	NA	10/8/18	7/19/19	ETS
446	2.7	CAASPP Reporting	343 days	NA	NA	8/28/18	12/27/19	ETS
447	2.7.1	Summative Assessment	323 days	NA	NA	8/28/18	11/29/19	ETS
448	2.7.1.1	Delivery of Data Files to CDE	223 days	NA	NA	1/23/19	11/29/19	ETS
449	2.7.1.1.1	Prepare student data files	110 days	217SS+5d, 226SS+5d	NA	1/23/19	6/25/19	ETS
450	2.7.1.1.2	Post initial student data files (P1) to SFTP site for CDE	1 day	NA	451FS+43d	7/1/19	7/1/19	ETS
451	2.7.1.1.3	Post final data files (P2) to SFTP site for CDE	1 day	450FS+43d	491, 452FS+20d	8/30/19	8/30/19	ETS
452	2.7.1.1.4	ETS delivers student-level data file of test settings assigned and used by the student	1 day	451FS+20d	453FS+43d	9/30/19	9/30/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
453	2.7.1.1.5	ETS delivers a student-level data file of test settings assigned and used by the student and P3	1 day	452FS+43d	NA	11/29/19	11/29/19	ETS
454	2.7.1.2	Online Reporting Systems	199 days	NA	NA	8/28/18	6/10/19	ETS
455	2.7.1.2.1	Online Reporting Systems Setup	1 day	NA	NA	1/31/19	1/31/19	ETS
456	2.7.1.2.1.1	Deploy online reporting system	1 day	NA	459FS+60d	1/31/19	1/31/19	ETS
457	2.7.1.2.2	Student Level Reporting	90 days	NA	NA	2/5/19	6/10/19	ETS
458	2.7.1.2.2.1	Provide final individual scores within 4 weeks of student online test completion	90 days	217SS+20d	NA	2/5/19	6/10/19	ETS
459	2.7.1.2.2.2	Launch ISR availability within online reporting system	1 day	201, 456FS+60d	461FS+10d	4/26/19	4/26/19	ETS
460	2.7.1.2.3	School Level Reporting	1 day	NA	NA	5/13/19	5/13/19	ETS
461	2.7.1.2.3.1	Launch school level reporting functionality	1 day	459FS+10d	463FS+10d	5/13/19	5/13/19	ETS
462	2.7.1.2.4	LEA Level Reporting	1 day	NA	NA	5/28/19	5/28/19	ETS
463	2.7.1.2.4.1	Launch LEA level reporting functionality	1 day	461FS+10d	NA	5/28/19	5/28/19	ETS
464	2.7.1.2.5	State Level Reporting	112 days	NA	NA	8/28/18	2/7/19	ETS
465	2.7.1.2.5.1	State Aggregate Reporting Website	112 days	NA	NA	8/28/18	2/7/19	ETS
466	2.7.1.2.5.1.1	Develop business requirements	45 days	133FS+40d	467	8/28/18	10/30/18	ETS
467	2.7.1.2.5.1.2	CDE provides text for site	1 day	466	468	10/31/18	10/31/18	CDE
468	2.7.1.2.5.1.3	Construct web reporting site	30 days	467	469	11/1/18	12/14/18	ETS
469	2.7.1.2.5.1.4	CDE UAT of Web Reporting Site	10 days	468	470	12/17/18	1/2/19	CDE
470	2.7.1.2.5.1.5	CDE provides feedback on changes needed	10 days	469	471	1/3/19	1/16/19	CDE
471	2.7.1.2.5.1.6	Apply changes	5 days	470	472	1/17/19	1/23/19	ETS
472	2.7.1.2.5.1.7	CDE second UAT	5 days	471	473	1/24/19	1/30/19	CDE
473	2.7.1.2.5.1.8	Finalize site with CDE updates	5 days	472	474	1/31/19	2/6/19	ETS
474	2.7.1.2.5.1.9	Deploy State level reporting website	1 day	473	NA	2/7/19	2/7/19	ETS
475	2.7.1.3	Individual Student Report	167 days	NA	NA	11/21/18	7/18/19	ETS
476	2.7.1.3.1	Develop individual student report	40 days	133FS+100d	477	11/21/18	1/22/19	ETS
477	2.7.1.3.2	CDE reviews individual student report	10 days	476	478	1/23/19	2/5/19	CDE
478	2.7.1.3.3	Update individual student report	3 days	477	479	2/6/19	2/8/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
479	2.7.1.3.4	CDE 2nd review of individual student report	5 days	478	480	2/11/19	2/15/19	CDE
480	2.7.1.3.5	Apply updates & submit to CDE for approval	3 days	479	481FS+50d	2/18/19	2/20/19	ETS
481	2.7.1.3.6	Conduct SSR Pilot Review meeting	1 day	480FS+50d	482	5/2/19	5/2/19	ETS
482	2.7.1.3.7	Post Student Score Reports (SSR) for LEAs	55 days	481	NA	5/3/19	7/18/19	ETS
483	2.7.1.4	Rescore Process	130 days	NA	NA	1/23/19	7/23/19	ETS
484	2.7.1.4.1	LEAs request rescores	120 days	439SS	485SS+30d	1/23/19	7/9/19	LEAs
485	2.7.1.4.2	Provide rescore results	100 days	484SS+30d	486SS+5d	3/6/19	7/23/19	ETS
486	2.7.1.4.3	Invoicing for rescores occurs	10 days	485SS+5d	NA	3/13/19	3/26/19	ETS
487	2.7.2	Understanding SSRs Guides	31 days	NA	NA	3/20/19	5/1/19	ETS
488	2.7.2.1	Produce Understanding SSRs guides in 5 languages	30 days	133FS+180d	489	3/20/19	4/30/19	ETS
489	2.7.2.2	Post Understanding SSRs guides in 5 languages	1 day	488	NA	5/1/19	5/1/19	ETS
490	2.7.3	Technical Reports	85 days	NA	NA	9/2/19	12/27/19	ETS
491	2.7.3.1	Develop Technical Reports	40 days	442, 451	492	9/2/19	10/25/19	ETS
492	2.7.3.2	CDE reviews Technical Reports and returns edits to ETS	20 days	491	493	10/28/19	11/22/19	CDE
493	2.7.3.3	ETS applies edits and delivers final Technical Reports to CDE	10 days	492	494	11/25/19	12/6/19	ETS
494	2.7.3.4	CDE 2nd review of Technical Reports	10 days	493	495	12/9/19	12/20/19	CDE
495	2.7.3.5	Apply updates and deliver Technical Reports to CDE for approval	5 days	494	NA	12/23/19	12/27/19	ETS
496	3	2019–20 Administration Year	1007 days	NA	NA	7/5/17	6/4/21	ETS
497	3.1	Project Administration	390 days	NA	NA	1/2/19	6/30/20	ETS
498	3.1.1	Project Management	368 days	NA	NA	2/1/19	6/30/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
499	3.1.1.1	Project Management Begins	0 days	NA	518, 505FS+53d, 503, 513, 515, 516, 520, 522, 528, 529, 531, 535, 536, 543, 546FS+154d, 606	2/1/19	2/1/19	ETS
500	3.1.1.2	Project Management Plan (PMP) & subplans	262 days	NA	NA	7/1/19	6/30/20	ETS
501	3.1.1.2.1	Update project management plan and subplans as appropriate for process improvements	262 days	7	NA	7/1/19	6/30/20	ETS
502	3.1.1.3	Risk & Issue Tracking	262 days	NA	NA	7/1/19	6/30/20	ETS
503	3.1.1.3.1	Conduct Monthly Risk Review Meeting with CDE (Twice Monthly)	262 days	499	NA	7/1/19	6/30/20	ETS
504	3.1.1.4	Schedule Management	315 days	NA	NA	4/17/19	6/30/20	ETS
505	3.1.1.4.1	Complete annual update to Work Breakdown Structure	10 days	499FS+53d	507	4/17/19	4/30/19	ETS
506	3.1.1.4.2	2019–20 Schedule of Deliverables (SoD)	305 days	NA	NA	5/1/19	6/30/20	ETS
507	3.1.1.4.2.1	Prepare 2019–20 SoD	100 days	505	508	5/1/19	9/17/19	ETS
508	3.1.1.4.2.2	Review and provide feedback on 2019–20 SoD Cycle 1	20 days	507	509	9/18/19	10/15/19	CDE
509	3.1.1.4.2.3	Review and approve 2019–20 SoD and Deliverables crosswalk	20 days	508	510	10/16/19	11/12/19	CDE
510	3.1.1.4.2.4	Lock baseline dates in 2019–20 SoD	1 day	509	511	11/13/19	11/13/19	ETS
511	3.1.1.4.2.5	Conduct project schedule execution and SoD Variance Summary reporting	164 days	510	NA	11/14/19	6/30/20	ETS
512	3.1.1.5	Change Management	262 days	NA	NA	7/1/19	6/30/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
513	3.1.1.5.1	Conduct Monthly Change Control Meeting with CDE (Twice Monthly)	262 days	499	NA	7/1/19	6/30/20	ETS
514	3.1.1.6	Status Reporting	262 days	NA	NA	7/1/19	6/30/20	ETS
515	3.1.1.6.1	Submit Monthly Invoice and Accomplishments Report to CDE	262 days	499	NA	7/1/19	6/30/20	ETS
516	3.1.1.6.2	Submit Weekly Status Report to CDE	262 days	499	NA	7/1/19	6/30/20	ETS
517	3.1.1.7	Monthly Progress Reports	262 days	NA	NA	7/1/19	6/30/20	ETS
518	3.1.1.7.1	Deliver monthly progress reports to CDE	262 days	499	NA	7/1/19	6/30/20	ETS
519	3.1.1.8	Continuous Improvement Plan	262 days	NA	NA	7/1/19	6/30/20	ETS
520	3.1.1.8.1	ETS works with the CDE to enhance a continuous improvement plan	262 days	499	NA	7/1/19	6/30/20	ETS, CDE
521	3.1.2	Program Meetings	390 days	NA	NA	1/2/19	6/30/20	ETS
522	3.1.2.1	Conduct internal ETS planning meeting	2 days	499	523FS+31d	4/18/19	4/19/19	ETS
523	3.1.2.2	Conduct annual planning meeting	2 days	522FS+31d	524, 525, 526FS+15d, 543SS	6/4/19	6/5/19	ETS, CDE
524	3.1.2.3	Conduct Reporting Specifications Intake meeting	1 day	523	527	6/6/19	6/6/19	ETS
525	3.1.2.4	Prepare meeting minutes/participant list and deliver to CDE	5 days	523	NA	6/6/19	6/12/19	ETS
526	3.1.2.5	Submit final Program Improvements Plan	1 day	523FS+15d	NA	6/27/19	6/27/19	ETS
527	3.1.2.6	Conduct manuals and context-sensitive help intake meeting	2 days	524	NA	6/7/19	6/10/19	ETS
528	3.1.2.7	Conduct weekly internal status meetings	262 days	499	NA	7/1/19	6/30/20	ETS
529	3.1.2.8	Conduct weekly CDE management meetings	262 days	499	NA	7/1/19	6/30/20	ETS
530	3.1.2.9	Conduct bi-weekly coordination with the CDE Outreach and Technical Contractor	390 days	NA	NA	1/2/19	6/30/20	ETS
531	3.1.2.10	Conduct additional meetings as needed	262 days	499	NA	7/1/19	6/30/20	ETS
532	3.1.2.11	State Board Meetings	262 days	NA	NA	7/1/19	6/30/20	ETS
533	3.1.2.11.1	Attend State Board meetings	262 days	38	NA	7/1/19	6/30/20	ETS, CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
534	3.1.2.12	Technical Advisory Group (TAG) Meetings	262 days	NA	NA	7/1/19	6/30/20	ETS
535	3.1.2.12.1	Work with the CDE to develop TAG agendas	262 days	499	NA	7/1/19	6/30/20	ETS, CDE
536	3.1.2.12.2	Attend TAG meetings	262 days	499	NA	7/1/19	6/30/20	ETS, CDE
537	3.1.2.13	Network Coordination Meetings	198 days	NA	NA	3/29/19	12/31/19	ETS
538	3.1.2.13.1	Q1 Network Coordination Meeting	1 day	NA	539	3/29/19	3/29/19	ETS
539	3.1.2.13.2	Q2 Network Coordination Meeting	1 day	538	540	6/28/19	6/28/19	ETS
540	3.1.2.13.3	Q3 Network Coordination Meeting	1 day	539	541	9/30/19	9/30/19	ETS
541	3.1.2.13.4	Q4 Network Coordination Meeting	1 day	540	NA	12/31/19	12/31/19	ETS
542	3.1.3	Test Security	281 days	NA	NA	6/4/19	6/30/20	ETS
543	3.1.3.1	Update and deliver the Test Security Plan for the 2020 administration	30 days	499, 523SS	NA	6/4/19	7/15/19	ETS
544	3.1.3.2	Communication from ETS to LEAS requesting yet to be submitted designations forms and security agreements	77 days	NA	NA	8/15/19	11/29/19	ETS
545	3.1.3.3	Monitor social media sites for test security breaches	262 days	NA	NA	7/1/19	6/30/20	ETS
546	3.1.3.4	Perform on-site security audit visits	214 days	499FS+154d	547SS	9/5/19	6/30/20	ETS
547	3.1.3.5	Investigate test security breaches as needed	214 days	546SS	548SS+5d	9/5/19	6/30/20	ETS
548	3.1.3.6	Deliver audit reports to CDE	209 days	547SS+5d	NA	9/12/19	6/30/20	ETS
549	3.2	Program Support	387 days	NA	NA	1/7/19	6/30/20	ETS
550	3.2.1	LEA Management and Communications	152 days	NA	NA	5/1/19	11/28/19	ETS
551	3.2.1.1	Communication from ETS to LEAS requesting school hierarchy information	1 day	NA	NA	5/1/19	5/1/19	ETS
552	3.2.1.2	Collect LEA CAASPP coordinator designation forms and security agreements	50 days	NA	553FS-30d	9/2/19	11/8/19	ETS
553	3.2.1.3	Input updates into the LEA CAASPP coordinator database	43 days	552FS-30d	554	9/30/19	11/27/19	ETS
554	3.2.1.4	Provide CDE access to the CAASPP coordinator database	1 day	553	NA	11/28/19	11/28/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
555	3.2.2	Digital Library	263 days	NA	NA	6/28/19	6/30/20	ETS
556	3.2.2.1	Provide access to and customer support for Digital Library	263 days	NA	NA	6/28/19	6/30/20	ETS
557	3.2.2.2	Marketing Efforts	263 days	NA	NA	6/28/19	6/30/20	ETS
558	3.2.3	LEA Training	380 days	NA	NA	1/7/19	6/19/20	ETS
559	3.2.3.1	CAASPP Workshops, Webcasts, and Online Videos	380 days	NA	NA	1/7/19	6/19/20	ETS
560	3.2.3.1.1	In-Person Workshops	380 days	NA	NA	1/7/19	6/19/20	ETS
561	3.2.3.1.1.1	July-August 2019 (Summer Scoring Institutes)	35 days	NA	NA	7/5/19	8/22/19	ETS
562	3.2.3.1.1.1.1	Summer Scoring Workshop (North, Central and South)	35 days	NA	NA	7/5/19	8/22/19	ETS
563	3.2.3.1.1.2	September - October 2019 (Interim Hand Scoring Workshops)	35 days	NA	NA	9/4/19	10/22/19	ETS
564	3.2.3.1.1.2.1	Interim Assessment Hand Scoring Workshop (North, Central and South)	35 days	NA	NA	9/4/19	10/22/19	ETS
565	3.2.3.1.1.2.2	Digital Library & Interim Assessment Clinics (North, Central and South)	35 days	NA	NA	9/4/19	10/22/19	ETS
566	3.2.3.1.1.3	January - February 2020 (Pretest Workshops)	30 days	NA	NA	1/7/19	2/15/19	ETS
567	3.2.3.1.1.3.1	Present Pretest Workshops throughout the state	30 days	NA	NA	1/7/19	2/15/19	ETS
568	3.2.3.1.1.4	May - June 2020 (Post-Test Workshops)	25 days	NA	NA	5/18/20	6/19/20	ETS
569	3.2.3.1.1.4.1	Present Post-Test Workshops throughout the state	25 days	NA	NA	5/18/20	6/19/20	ETS
570	3.2.3.1.2	Webcast Only	1 day	NA	NA	5/13/20	5/13/20	ETS
571	3.2.3.1.2.1	Pretest Workshop - 2 hours (2019 - 2020)	1 day	NA	NA	5/13/20	5/13/20	ETS
572	3.2.3.1.3	Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/19	11/26/19	ETS
573	3.2.3.1.3.1	Present Short Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/19	11/26/19	ETS
574	3.2.3.2	Manuals	220 days	NA	NA	7/1/19	5/1/20	ETS
575	3.2.3.2.1	2019–20 Manuals	220 days	NA	NA	7/1/19	5/1/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
576	3.2.3.2.1.1	2019–20 Manuals begin	0 days	NA	579FS-1d, 581FS-1d, 583FS-1d, 585FS-1d, 587FS+1d, 590FS+69d, 592FS+69d, 595FS+155d, 597FS+155d, 599FS+155d	7/2/19	7/2/19	ETS
577	3.2.3.2.1.2	Manuals needed for Phase 1	78 days	NA	NA	7/1/19	10/16/19	ETS
578	3.2.3.2.1.2.1	TOMS Pre-Administration Guide for CAASPP Testing	45 days	NA	NA	7/1/19	8/30/19	ETS
579	3.2.3.2.1.2.1.1	Revise TOMS Pre-Administration Guide for CAASPP Testing	45 days	576FS-1d	NA	7/1/19	8/30/19	ETS
580	3.2.3.2.1.2.2	Technical Specifications and Configuration Guide for CAASPP Testing	45 days	NA	NA	7/1/19	8/30/19	ETS
581	3.2.3.2.1.2.2.1	Revise Technical Specifications and Configuration Guide for CAASPP Testing	45 days	576FS-1d	NA	7/1/19	8/30/19	ETS
582	3.2.3.2.1.2.3	Interim Assessment User's Guide	45 days	NA	NA	7/1/19	8/30/19	ETS
583	3.2.3.2.1.2.3.1	Revise IA User Guide refresh	45 days	576FS-1d	NA	7/1/19	8/30/19	ETS
584	3.2.3.2.1.2.4	Guide to CAASPP Completion Status and Roster Management	45 days	NA	NA	7/1/19	8/30/19	ETS
585	3.2.3.2.1.2.4.1	Revise Guide to CAASPP Completion Status and Roster Management	45 days	576FS-1d	NA	7/1/19	8/30/19	ETS
586	3.2.3.2.1.2.5	Accessibility Guide for CAASPP Testing	76 days	NA	NA	7/3/19	10/16/19	ETS
587	3.2.3.2.1.2.5.1	Revise Accessibility Guide for CAASPP Testing	76 days	576FS+1d	NA	7/3/19	10/16/19	ETS
588	3.2.3.2.1.3	Manuals needed for Phase 2	65 days	NA	NA	10/7/19	1/3/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
589	3.2.3.2.1.3.1	Online Test Administration Manual for CAASPP Testing	65 days	NA	NA	10/7/19	1/3/20	ETS
590	3.2.3.2.1.3.1.1	Revise Online TAM	65 days	576FS+69d	NA	10/7/19	1/3/20	ETS
591	3.2.3.2.1.3.2	Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	NA	NA	10/7/19	1/3/20	ETS
592	3.2.3.2.1.3.2.1	Revise Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	576FS+69d	NA	10/7/19	1/3/20	ETS
593	3.2.3.2.1.4	Manuals needed for Phase 3	64 days	NA	NA	2/4/20	5/1/20	ETS
594	3.2.3.2.1.4.1	Online Reporting System User Guide for California	64 days	NA	NA	2/4/20	5/1/20	ETS
595	3.2.3.2.1.4.1.1	Revise Online Reporting System User Guide for California	64 days	576FS+155d, 592	NA	2/4/20	5/1/20	ETS
596	3.2.3.2.1.4.2	CAASPP Security Incidents and Appeals Procedure Guide	64 days	NA	NA	2/4/20	5/1/20	ETS
597	3.2.3.2.1.4.2.1	Revise Security and Test Administration Procedure Guide	64 days	576FS+155d, 592	NA	2/4/20	5/1/20	ETS
598	3.2.3.2.1.4.3	CAASPP Post-Test Guide	64 days	NA	NA	2/4/20	5/1/20	ETS
599	3.2.3.2.1.4.3.1	Revise CAASPP Post-Test Guide	64 days	576FS+155d, 592	NA	2/4/20	5/1/20	ETS
600	3.2.4	CalTAC Support	262 days	NA	NA	7/1/19	6/30/20	ETS
601	3.2.4.1	Train CalTAC staff on the CAASPP program	10 days	NA	602SS	7/1/19	7/12/19	ETS
602	3.2.4.2	Establish help desk technical phone, web chat and email support	10 days	601SS	603	7/1/19	7/12/19	ETS
603	3.2.4.3	Perform technology support site visits as needed	252 days	602	NA	7/15/19	6/30/20	ETS
604	3.2.5	Data Driven Improvement	238 days	NA	NA	5/1/19	3/27/20	ETS
605	3.2.5.1	Post-Test Focus Groups for Administrators	82 days	NA	NA	5/1/19	8/22/19	ETS
606	3.2.5.1.1	Prepare materials for Post-Test Focus Groups	25 days	499	607	5/1/19	6/4/19	ETS
607	3.2.5.1.2	Review and approve materials for post-test focus groups	10 days	606	608	6/5/19	6/18/19	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
608	3.2.5.1.3	Conduct Sacramento focus group	2 days	607	609FS+3d	6/19/19	6/20/19	ETS
609	3.2.5.1.4	Conduct Southern CA focus group	2 days	608FS+3d	610	6/26/19	6/27/19	ETS
610	3.2.5.1.5	Compile results and recommended program improvements to CDE	40 days	609	NA	6/28/19	8/22/19	ETS
611	3.2.5.2	Test Coordinator Advisory Group	162 days	NA	NA	8/15/19	3/27/20	ETS
612	3.2.5.2.1	Prepare materials for Test Coordinator Advisory Group 1	20 days	NA	613	8/15/19	9/11/19	ETS
613	3.2.5.2.2	Conduct September Advisory Group 1	1 day	612	614, 615FS+80d	9/12/19	9/12/19	ETS
614	3.2.5.2.3	Compile results and recommended program improvements to CDE	40 days	613	NA	9/13/19	11/7/19	ETS
615	3.2.5.2.4	Prepare materials for Test Coordinator Advisory Group 2	20 days	613FS+80d	616	1/3/20	1/30/20	ETS
616	3.2.5.2.5	Conduct February Advisory Group 2	1 day	615	617	1/31/20	1/31/20	ETS
617	3.2.5.2.6	Compile results and recommended program improvements to CDE	40 days	616	NA	2/3/20	3/27/20	ETS
618	3.2.5.3	Focus Group Meetings	100 days	NA	NA	10/1/19	2/17/20	ETS
619	3.2.5.3.1	Prepare materials for caaspp.org Focus Groups	20 days	NA	620	10/1/19	10/28/19	ETS
620	3.2.5.3.2	Conduct additional Focus Groups as requested	40 days	619	621	10/29/19	12/23/19	ETS
621	3.2.5.3.3	Compile results and recommended program improvements to CDE	40 days	620	NA	12/24/19	2/17/20	ETS
622	3.2.5.4	ETS provides updated draft of concurrent usage monitoring plan to CDE	0 days	NA	NA	10/1/19	10/1/19	ETS
623	3.3	CAASPP Assessment System Releases	394 days	NA	NA	2/6/19	8/10/20	ETS
624	3.3.1	Operational Test Administration Begins	0 days	NA	943FS+80d, 953FS+50d, 965FS+150d, 703, 704, 705, 710	9/30/19	9/30/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
625	3.3.2	Testing Systems	299 days	NA	NA	2/6/19	3/30/20	ETS
626	3.3.2.1	Assessment Delivery System Releases	299 days	NA	NA	2/6/19	3/30/20	ETS
627	3.3.2.1.1	Phase 1 Release (Administration roll over and Interim Assessment launch)	150 days	NA	NA	2/6/19	9/3/19	ETS
628	3.3.2.1.1.1	Preparation	30 days	NA	NA	2/6/19	3/19/19	ETS
629	3.3.2.1.1.1.1	Meet with CDE to review requirements	20 days	NA	630FS-10d	2/6/19	3/5/19	ETS
630	3.3.2.1.1.1.2	Work with CDE to schedule and communicate system downtimes	20 days	629FS-10d	632	2/20/19	3/19/19	ETS
631	3.3.2.1.1.2	Functional Requirements	40 days	NA	NA	3/20/19	5/14/19	ETS
632	3.3.2.1.1.2.1	Create functional requirements and submit to CDE for review	25 days	630	633	3/20/19	4/23/19	ETS
633	3.3.2.1.1.2.2	CDE reviews functional requirements	10 days	632	634	4/24/19	5/7/19	ETS
634	3.3.2.1.1.2.3	Work with CDE to finalize functional requirements	5 days	633	636, 651FS+7d	5/8/19	5/14/19	ETS
635	3.3.2.1.1.3	Development and Testing	50 days	NA	NA	5/15/19	7/23/19	ETS
636	3.3.2.1.1.3.1	System development	40 days	634	637FS-20d	5/15/19	7/9/19	ETS
637	3.3.2.1.1.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	636FS-20d	639	6/12/19	7/23/19	ETS
638	3.3.2.1.1.4	User Acceptance Testing	25 days	NA	NA	7/25/19	8/28/19	ETS
639	3.3.2.1.1.4.1	Internal ETS/AIR UAT	5 days	637, 881	640	7/25/19	7/31/19	ETS
640	3.3.2.1.1.4.2	Internal fix cycle	5 days	639	641	8/1/19	8/7/19	ETS
641	3.3.2.1.1.4.3	CDE initial UAT	5 days	640	642	8/8/19	8/14/19	CDE
642	3.3.2.1.1.4.4	Fix cycle	5 days	641	643	8/15/19	8/21/19	ETS
643	3.3.2.1.1.4.5	CDE final UAT	5 days	642	645	8/22/19	8/28/19	CDE
644	3.3.2.1.1.5	Phase 1 Go-Live	4 days	NA	NA	8/29/19	9/3/19	ETS
645	3.3.2.1.1.5.1	Conduct release review call with CDE	1 day	643	646	8/29/19	8/29/19	ETS
646	3.3.2.1.1.5.2	CDE approves release	0 days	645	647	8/29/19	8/29/19	CDE
647	3.3.2.1.1.5.3	Software launch	3 days	646	648	8/30/19	9/3/19	ETS
648	3.3.2.1.1.5.4	Software go-live	0 days	647	883	9/3/19	9/3/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
649	3.3.2.1.2	Phase 2 Release (Summative Assessment launch)	163 days	NA	NA	5/24/19	1/7/20	ETS
650	3.3.2.1.2.1	Preparation	30 days	NA	NA	5/24/19	7/4/19	ETS
651	3.3.2.1.2.1.1	Meet with CDE to review requirements	20 days	634FS+7d	652FS-10d	5/24/19	6/20/19	ETS
652	3.3.2.1.2.1.2	Work with CDE to schedule and communicate system downtimes	20 days	651FS-10d	654	6/7/19	7/4/19	ETS
653	3.3.2.1.2.2	Functional Requirements	54 days	NA	NA	7/5/19	9/18/19	ETS
654	3.3.2.1.2.2.1	Create functional requirements and submit to CDE for review	39 days	652	655	7/5/19	8/28/19	ETS
655	3.3.2.1.2.2.2	CDE reviews functional requirements	10 days	654	656	8/29/19	9/11/19	ETS
656	3.3.2.1.2.2.3	Work with CDE to finalize functional requirements	5 days	655	658, 673FS+5d	9/12/19	9/18/19	ETS
657	3.3.2.1.2.3	Development and Testing	50 days	NA	NA	9/19/19	11/27/19	ETS
658	3.3.2.1.2.3.1	System development	40 days	656	659FS-20d	9/19/19	11/13/19	ETS
659	3.3.2.1.2.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	658FS-20d	661	10/17/19	11/27/19	ETS
660	3.3.2.1.2.4	User Acceptance Testing	25 days	NA	NA	11/28/19	1/1/20	ETS
661	3.3.2.1.2.4.1	Internal ETS/AIR UAT	5 days	659, 882	662	11/28/19	12/4/19	ETS
662	3.3.2.1.2.4.2	Internal fix cycle	5 days	661	663	12/5/19	12/11/19	ETS
663	3.3.2.1.2.4.3	CDE initial UAT	5 days	662	664	12/12/19	12/18/19	CDE
664	3.3.2.1.2.4.4	Fix cycle	5 days	663	665	12/19/19	12/25/19	ETS
665	3.3.2.1.2.4.5	CDE final UAT	5 days	664	667	12/26/19	1/1/20	CDE
666	3.3.2.1.2.5	Phase 2 Go-Live	4 days	NA	NA	1/2/20	1/7/20	ETS
667	3.3.2.1.2.5.1	Conduct release review call with CDE	1 day	665	668	1/2/20	1/2/20	ETS
668	3.3.2.1.2.5.2	CDE approves release	0 days	667	669	1/2/20	1/2/20	CDE
669	3.3.2.1.2.5.3	Software launch	3 days	668	670	1/3/20	1/7/20	ETS
670	3.3.2.1.2.5.4	Software go-live	0 days	669	884FS-1d	1/7/20	1/7/20	ETS
671	3.3.2.1.3	Phase 3 Release (Reporting System)	133 days	NA	NA	9/26/19	3/30/20	ETS
672	3.3.2.1.3.1	Preparation	25 days	NA	NA	9/26/19	10/30/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
673	3.3.2.1.3.1.1	Meet with CDE to review requirements	20 days	656FS+5d	674FS-10d	9/26/19	10/23/19	ETS
674	3.3.2.1.3.1.2	Work with CDE to schedule and communicate system downtimes	15 days	673FS-10d	676	10/10/19	10/30/19	ETS
675	3.3.2.1.3.2	Functional Requirements	40 days	NA	NA	10/31/19	12/25/19	ETS
676	3.3.2.1.3.2.1	Create functional requirements and submit to CDE for review	25 days	674	677	10/31/19	12/4/19	ETS
677	3.3.2.1.3.2.2	CDE reviews functional requirements	10 days	676	678	12/5/19	12/18/19	ETS
678	3.3.2.1.3.2.3	Work with CDE to finalize functional requirements	5 days	677	680	12/19/19	12/25/19	ETS
679	3.3.2.1.3.3	Development and Testing	39 days	NA	NA	12/26/19	2/18/20	ETS
680	3.3.2.1.3.3.1	System development	34 days	678	681FS-20d	12/26/19	2/11/20	ETS
681	3.3.2.1.3.3.2	Software and performance testing (provide performance testing results to CDE)	25 days	680FS-20d	683	1/15/20	2/18/20	ETS
682	3.3.2.1.3.4	User Acceptance Testing	25 days	NA	NA	2/19/20	3/24/20	ETS
683	3.3.2.1.3.4.1	Internal ETS/AIR UAT	5 days	681	684	2/19/20	2/25/20	ETS
684	3.3.2.1.3.4.2	Internal fix cycle	5 days	683	685	2/26/20	3/3/20	ETS
685	3.3.2.1.3.4.3	CDE initial UAT	5 days	684	686	3/4/20	3/10/20	CDE
686	3.3.2.1.3.4.4	Fix cycle	5 days	685	687	3/11/20	3/17/20	ETS
687	3.3.2.1.3.4.5	CDE final UAT	5 days	686	689	3/18/20	3/24/20	CDE
688	3.3.2.1.3.5	Phase 3 Go-Live	4 days	NA	NA	3/25/20	3/30/20	ETS
689	3.3.2.1.3.5.1	Conduct release review call with CDE	1 day	687	690	3/25/20	3/25/20	ETS
690	3.3.2.1.3.5.2	CDE approves release	0 days	689	691	3/25/20	3/25/20	CDE
691	3.3.2.1.3.5.3	Software launch	3 days	690	692	3/26/20	3/30/20	ETS
692	3.3.2.1.3.5.4	Software go-live	0 days	691	NA	3/30/20	3/30/20	ETS
693	3.3.3	Interim Assessment Registration, Test Content and Ancillaries	40 days	NA	NA	7/1/19	8/23/19	ETS
694	3.3.3.1	New enhanced test packages available from Smarter Balanced	0 days	NA	695	7/1/19	7/1/19	ETS
695	3.3.3.2	Process new test packages	20 days	694	696, 697	7/1/19	7/26/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
696	3.3.3.3	Updated Interim Comprehensive Assessment (summative clone) (ICA) launched	1 day	695	NA	7/29/19	7/29/19	ETS
697	3.3.3.4	Updated Interim Assessment Blocks (IAB) launched	1 day	695	NA	7/29/19	7/29/19	ETS
698	3.3.3.5	Configure Smarter Balanced System User Guide for CA	40 days	NA	699SS	7/1/19	8/23/19	ETS
699	3.3.3.6	Configure Smarter Balanced Scoring Guide for CA	40 days	698SS	700SS	7/1/19	8/23/19	ETS
700	3.3.3.7	Configure Smarter Balanced System Infrastructure Guide for CA	40 days	699SS	701SS	7/1/19	8/23/19	ETS
701	3.3.3.8	Configure Smarter Balanced System Training Workbook for CA	40 days	700SS	NA	7/1/19	8/23/19	ETS
702	3.3.4	Summative Computer Based Assessments	226 days	NA	NA	9/30/19	8/10/20	ETS
703	3.3.4.1	Summative content packages available for CAT	0 days	624	706	9/30/19	9/30/19	ETS
704	3.3.4.2	Summative content packages available for PT	0 days	624	706	9/30/19	9/30/19	ETS
705	3.3.4.3	Summative test packages available for CAT and PT	0 days	624	706	9/30/19	9/30/19	ETS
706	3.3.4.4	Import and QC test packages	20 days	703, 704, 705	708FS+25d	9/30/19	10/25/19	ETS
707	3.3.4.5	Update enrollment/test administration information	20 days	708SS-40d	714	11/19/19	12/16/19	ETS
708	3.3.4.6	Administer summative assessments (Smarter Balanced ELA/Math, ELA/Math Alternate)	150 days	706FS+25d	707SS-40d, 935SS+20d, 715SS+5d, 920FS-40d, 916SS+5d, 928SS+5d, 713SS	1/14/20	8/10/20	ETS
709	3.3.5	Summative Paper/Pencil Testing	211 days	NA	NA	9/30/19	7/20/20	ETS
710	3.3.5.1	Receive paper-based tests from Smarter Balanced	1 day	624	719, 711	9/30/19	9/30/19	ETS
711	3.3.5.2	Add covers	10 days	710	712	10/1/19	10/14/19	ETS
712	3.3.5.3	Print all summative operational paper tests	30 days	711	714FS+10d	10/15/19	11/25/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
713	3.3.5.4	Receive material orders	129 days	708SS	714SS+1d	1/14/20	7/10/20	ETS
714	3.3.5.5	Distribute paper tests as needed	129 days	707, 712FS+10d, 713SS+1d	720SS+1d	1/15/20	7/13/20	ETS
715	3.3.5.6	Receive paper tests	129 days	708SS+5d	716SS	1/21/20	7/17/20	ETS
716	3.3.5.7	Scan paper tests	129 days	715SS	717SS+1d	1/21/20	7/17/20	ETS
717	3.3.5.8	Conduct resolutions on paper tests	129 days	716SS+1d	916SS+5d, 928SS+5d	1/22/20	7/20/20	ETS
718	3.3.5.9	Special Versions	205 days	NA	NA	10/1/19	7/13/20	ETS
719	3.3.5.9.1	Produce large print & Braille	40 days	710	720FS+10d	10/1/19	11/25/19	ETS
720	3.3.5.9.2	Deliver large print and Braille as requested	128 days	714SS+1d, 719FS+10d	NA	1/16/20	7/13/20	ETS
721	3.4	CAASPP Expansion Assessments	896 days	NA	NA	7/5/17	12/31/20	ETS
722	3.4.1	CSA	393 days	NA	NA	7/2/19	12/31/20	ETS
723	3.4.1.1	2019–20 Operational Test Development	139 days	NA	NA	7/2/19	1/10/20	ETS
724	3.4.1.1.1	Operational Test Passage/Item Development	60 days	NA	725FS-80d	7/30/19	10/21/19	ETS
725	3.4.1.1.2	Operational Test Forms Development	100 days	724FS-80d	726SS	7/2/19	11/18/19	ETS
726	3.4.1.1.3	CSA Operational Practice and Training Test Development	95 days	725SS	727FS-40d	8/5/19	12/13/19	ETS
727	3.4.1.1.4	Operational Rangefinding Meeting Planning and Execution	60 days	726FS-40d	NA	10/21/19	1/10/20	ETS
728	3.4.1.2	Operational Test Administration	258 days	NA	NA	1/7/20	12/31/20	ETS
729	3.4.1.2.1	Operational Test Administration	137 days	NA	732, 730FS-25d	1/7/20	7/15/20	ETS
730	3.4.1.2.2	Operational Test Final Item Analysis (FIA)	25 days	729FS-25d	731, 734	6/11/20	7/15/20	ETS
731	3.4.1.2.3	Embedded Field Test item analysis	20 days	730	NA	7/16/20	8/12/20	ETS
732	3.4.1.2.4	Operational Test Data Review Meeting (with Educators)	30 days	729	733FS-20d	7/16/20	8/26/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
733	3.4.1.2.5	Develop and deliver Operational Test Analysis Report	30 days	732FS-20d	735	7/30/20	9/9/20	ETS
734	3.4.1.2.6	Develop and distribute Operational Test Post-Test Survey	30 days	730	NA	7/16/20	8/26/20	ETS
735	3.4.1.2.7	2019–20 Technical Report	81 days	733	NA	9/10/20	12/31/20	ETS
736	3.4.2	CAA Science	885 days	NA	NA	7/5/17	12/16/20	ETS
737	3.4.2.1	Test Design Team meeting	1 day	NA	NA	6/3/19	6/3/19	ETS
738	3.4.2.2	Operational Test Planning & Item Development	524 days	NA	NA	7/5/17	7/30/19	ETS
739	3.4.2.2.1	Item Development Plan & Item and Content Specifications	60 days	NA	NA	8/22/18	11/14/18	ETS
740	3.4.2.2.1.1	Draft IDP & Item and Content Specs	20 days	NA	741	8/22/18	9/19/18	ETS
741	3.4.2.2.1.2	CDE Review of IDP & Item and Content Specs	20 days	740	742	9/20/18	10/17/18	CDE
742	3.4.2.2.1.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	20 days	741	743	10/18/18	11/14/18	ETS
743	3.4.2.2.1.4	Complete IDP & Item and Content Specs	0 days	742	768	11/14/18	11/14/18	ETS
744	3.4.2.2.2	Item Writer Workshop	75 days	NA	NA	8/29/18	12/14/18	ETS
745	3.4.2.2.2.1	Develop and finalize item writer workshop plan	20 days	NA	NA	8/29/18	9/26/18	ETS
746	3.4.2.2.2.2	Develop and finalize item writer workshop materials	37 days	NA	NA	9/27/18	11/16/18	ETS
747	3.4.2.2.2.3	Conduct Item Writer Workshop	2 days	NA	755	12/13/18	12/14/18	ETS
748	3.4.2.2.3	Operational Test Plan	60 days	NA	NA	10/22/18	1/18/19	ETS
749	3.4.2.2.3.1	Draft Operational Test Plan	20 days	NA	750	10/22/18	11/16/18	ETS
750	3.4.2.2.3.2	Work with CDE to Finalize Operational Test Plan	40 days	749	768	11/19/18	1/18/19	ETS
751	3.4.2.2.4	Test Specifications and Blueprints	60 days	NA	NA	10/22/18	1/18/19	ETS
752	3.4.2.2.4.1	Draft Test Specs and Blueprints	20 days	NA	753	10/22/18	11/16/18	ETS
753	3.4.2.2.4.2	Work with CDE to finalize Test Specs and Blueprints	40 days	752	768	11/19/18	1/18/19	ETS
754	3.4.2.2.5	Item Development	442 days	NA	NA	7/5/17	4/5/19	ETS
755	3.4.2.2.5.1	Draft embedded PTs	50 days	747	756	12/17/18	2/27/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
756	3.4.2.2.5.2	Author embedded PT questions in IBIS	10 days	755	758	2/28/19	3/13/19	ETS
757	3.4.2.2.5.3	Review Pilot 2 observations and report to AD necessary adjustments to drafted PTs	5 days	NA	758	7/5/17	7/11/17	ETS
758	3.4.2.2.5.4	Prepare materials for Item Review meeting	10 days	756, 757	759	3/14/19	3/27/19	ETS
759	3.4.2.2.5.5	Finalize materials	2 days	758	760	3/28/19	3/29/19	ETS
760	3.4.2.2.5.6	CDE receives Performance Tasks for preview	0 days	759	761	3/29/19	3/29/19	CDE
761	3.4.2.2.5.7	Apply final changes to Embedded PTs pre-IRC based on feedback from CDE Previews	5 days	760	768	4/1/19	4/5/19	ETS
762	3.4.2.2.6	CAA Item Review meeting	68 days	NA	NA	1/10/19	4/15/19	ETS
763	3.4.2.2.6.1	Develop and finalize with CDE the Plan document for CAA Science Item Review	50 days	NA	767FS-29d, 764SS+10d, 765SS-5d, 766SS+15d	1/17/19	3/27/19	ETS
764	3.4.2.2.6.2	Develop Meeting Specs (participant count, meeting date, venue confirmation, etc.)	25 days	763SS+10d	768	1/31/19	3/6/19	ETS
765	3.4.2.2.6.3	Construct Invitee list for CAA Item Review	8 days	763SS-5d	NA	1/10/19	1/21/19	ETS
766	3.4.2.2.6.4	Develop Invitation letters for CAA Item Review	14 days	763SS+15d	768	2/7/19	2/26/19	ETS
767	3.4.2.2.6.5	Work with CDE to Develop Meeting Materials	40 days	763FS-29d	768	2/15/19	4/11/19	ETS, CDE
768	3.4.2.2.6.6	CAA Science Item Review *(includes Operational Test/Practice Test Item Determinations)	2 days	NA#	770, 772, 784, 785FS-30d, 786FS-30d, 787FS+27d, 788FS+30d	4/12/19	4/15/19	ETS
769	3.4.2.2.7	Item Finalization (Post-committee)	76 days	NA	NA	4/16/19	7/30/19	ETS
770	3.4.2.2.7.1	Embedded PT Scaffolding Activities	56 days	768	771FS-20d	4/16/19	7/2/19	ETS
771	3.4.2.2.7.2	508 tagging	31 days	770FS-20d	NA	6/5/19	7/17/19	ETS
772	3.4.2.2.7.3	Update Embedded PT questions (for IBIS)	76 days	768	775	4/16/19	7/30/19	ETS
773	3.4.2.3	AIR TDS Production	63 days	NA	NA	7/30/19	10/25/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
774	3.4.2.3.1	Construct TDS items for AIR	63 days	NA	NA	7/30/19	10/25/19	ETS
775	3.4.2.3.1.1	IBIS items Locked	0 days	772	776	7/30/19	7/30/19	ETS
776	3.4.2.3.1.2	Prepare IBIS items for export	5 days	775	777	7/31/19	8/6/19	ETS
777	3.4.2.3.1.3	Submit IBIS items to AIR	0 days	776	778	8/6/19	8/6/19	ETS
778	3.4.2.3.1.4	AIR returns ITS IDs for items	3 days	777	779	8/7/19	8/9/19	ETS
779	3.4.2.3.1.5	Provide sequence IDs and return to AIR	1 day	778	780	8/12/19	8/12/19	ETS
780	3.4.2.3.1.6	Confirm sequences at AIR	1 day	779	781	8/13/19	8/13/19	ETS
781	3.4.2.3.1.7	Content Lockdown	0 days	780	782FS+53d	8/13/19	8/13/19	ETS
782	3.4.2.3.1.8	Embedded PTs available in TDS to LEAs	0 days	781FS+53d, 787, 788	791FS-80d	10/25/19	10/25/19	ETS
783	3.4.2.4	Administration Support Materials	169 days	NA	NA	3/5/19	10/25/19	ETS
784	3.4.2.4.1	Develop Practice Tests	102 days	768	791, 790	4/16/19	9/4/19	ETS
785	3.4.2.4.2	Develop Pre-Administration Support Video	105 days	768FS-30d	791, 790	3/5/19	7/29/19	ETS
786	3.4.2.4.3	Develop Pre-Administration Test Examiner Online Training Module	105 days	768FS-30d	791, 790	3/5/19	7/29/19	ETS
787	3.4.2.4.4	Develop TE TDS Guide (for OTAM)	112 days	768FS+27d	782	5/23/19	10/25/19	ETS
788	3.4.2.4.5	Develop TE TDS Video	96 days	768FS+30d	782	5/28/19	10/8/19	ETS
789	3.4.2.5	Operational Administration	225 days	NA	NA	9/5/19	7/15/20	ETS
790	3.4.2.5.1	Non-secure standard, topic, and activity information available to LEAs	0 days	784, 785, 786	NA	9/5/19	9/5/19	ETS
791	3.4.2.5.2	Secure test content available to LEA	0 days	782FS-80d, 784, 785, 786	792FS+225d, 794FS+45d, 800FS+45d	9/5/19	9/5/19	ETS
792	3.4.2.5.3	Operational administration ends (mid-July)	0 days	791FS+225d	NA	7/15/20	7/15/20	ETS
793	3.4.2.6	Results	885 days	NA	NA	7/5/17	12/16/20	ETS
794	3.4.2.6.1	Develop and Release Test Examiner Survey	47 days	791FS+45d	797	11/7/19	1/10/20	ETS
795	3.4.2.6.2	Pilot Observations	800 days	NA	NA	7/5/17	8/19/20	ETS
796	3.4.2.6.2.1	Participants and Logistics	22 days	NA	NA	7/5/17	8/3/17	ETS
797	3.4.2.6.2.2	Contact and determine schools for observation	10 days	794	798	1/13/20	1/24/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
798	3.4.2.6.2.3	Identify observer pool	2 days	797	799	1/27/20	1/28/20	ETS
799	3.4.2.6.2.4	Secure training logistics	10 days	798	801	1/29/20	2/11/20	ETS
800	3.4.2.6.2.5	Develop Training Protocols	56 days	791FS+45d	801	11/7/19	1/23/20	ETS
801	3.4.2.6.2.6	Observer Training	3 days	799, 800	802	2/12/20	2/14/20	ETS
802	3.4.2.6.2.7	Conduct Pilot Observations	20 days	801	804	2/17/20	3/13/20	ETS
803	3.4.2.6.2.8	Observation Results	35 days	NA	NA	3/16/20	5/1/20	ETS
804	3.4.2.6.2.8.1	Analysis of Results	10 days	802	805, 809FS+50d	3/16/20	3/27/20	ETS
805	3.4.2.6.2.8.2	Draft memo of Observation Results	20 days	804	806	3/30/20	4/24/20	ETS
806	3.4.2.6.2.8.3	Finalize memo of Observation Results	5 days	805	807	4/27/20	5/1/20	ETS
807	3.4.2.6.2.8.4	Submit memo of Observation Results to CDE	0 days	806	NA	5/1/20	5/1/20	ETS
808	3.4.2.6.2.9	Operational Data Review	2 days	NA	NA	6/8/20	6/9/20	ETS
809	3.4.2.6.2.9.1	Conduct Operational Data Review Meeting	2 days	804FS+50d	811	6/8/20	6/9/20	ETS
810	3.4.2.6.2.10	Standard Setting	51 days	NA	NA	6/10/20	8/19/20	ETS
811	3.4.2.6.2.10.1	Prepare for and conduct Standard Setting	50 days	809	812	6/10/20	8/18/20	ETS
812	3.4.2.6.2.10.2	Achievement Level Descriptors (ALDs) available	1 day	811	NA	8/19/20	8/19/20	ETS
813	3.4.2.6.3	Technical Report	127 days	NA	NA	6/23/20	12/16/20	ETS
814	3.4.2.6.3.1	Draft Technical Report using P2 data and CDE feedback on table of contents	100 days	NA	815	6/23/20	11/9/20	ETS
815	3.4.2.6.3.2	Editorial Review of the Technical Report	5 days	814	816	11/10/20	11/16/20	ETS
816	3.4.2.6.3.3	Submit Technical Report to CDE	0 days	815	817	11/16/20	11/16/20	ETS
817	3.4.2.6.3.4	CDE Review of Technical Report	20 days	816	818	11/17/20	12/14/20	CDE
818	3.4.2.6.3.5	Apply final changes to Technical Report based on CDE feedback	2 days	817	819	12/15/20	12/16/20	ETS
819	3.4.2.6.3.6	CAA for Science Technical Report completed	0 days	818	NA	12/16/20	12/16/20	ETS
820	3.4.3	CAA ELA/Math	478 days	NA	NA	8/10/18	6/17/20	ETS
821	3.4.3.1	Begin Test Development	0 days	NA	823	8/10/18	8/10/18	ETS
822	3.4.3.2	Item Development Plan	35 days	NA	NA	8/10/18	9/28/18	ETS
823	3.4.3.2.1	Update annual Item Development Plan	20 days	821	824	8/10/18	9/7/18	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
824	3.4.3.2.2	CDE reviews and approves Item Development Plan	15 days	823	NA	9/10/18	9/28/18	CDE
825	3.4.3.3	Item Writing Workshop	46 days	NA	NA	10/1/18	12/5/18	ETS
826	3.4.3.3.1	Update Item Writing Workshop Plan	20 days	NA	827	10/1/18	10/26/18	ETS
827	3.4.3.3.2	CDE reviews and approves Item Writing Workshop Plan	15 days	826	828	10/29/18	11/16/18	CDE
828	3.4.3.3.3	Prepare for Item Writing Workshop	10 days	827	829	11/19/18	12/4/18	ETS
829	3.4.3.3.4	Conduct Item Writing Workshop	1 day	828	831	12/5/18	12/5/18	ETS
830	3.4.3.4	New Embedded Field Test Item Development	146 days	NA	NA	12/6/18	7/2/19	ETS
831	3.4.3.4.1	Develop and review Alternate Assessment ELA/Math Assessment items	112 days	829	832	12/6/18	5/15/19	ETS
832	3.4.3.4.2	CDE reviews new Alternate Assessment ELA/Math items	10 days	831	833	5/16/19	5/29/19	CDE
833	3.4.3.4.3	External committee item review meetings	4 days	832	834	5/30/19	6/4/19	ETS
834	3.4.3.4.4	ETS reviews and approves new items	20 days	833	837	6/5/19	7/2/19	ETS
835	3.4.3.5	Test Design Team meeting	1 day	NA	NA	6/3/19	6/3/19	ETS
836	3.4.3.6	Forms Development	86 days	NA	NA	7/3/19	10/30/19	ETS
837	3.4.3.6.1	Develop CAA ELA/Math test forms and DFAs	35 days	834	839, 838	7/3/19	8/20/19	ETS
838	3.4.3.6.2	CDE reviews CAA ELA/Math test forms and DFAs	10 days	837	NA	8/21/19	9/3/19	CDE
839	3.4.3.6.3	Develop adaptive routing score thresholds	20 days	837	840	8/21/19	9/17/19	ETS
840	3.4.3.6.4	Deliver routing thresholds to AIR for configuration	1 day	839	841, 843	9/18/19	9/18/19	ETS
841	3.4.3.6.5	AIR TDS configuration	30 days	840	NA	9/19/19	10/30/19	ETS
842	3.4.3.7	Training Test and DFA Content Refresh	36 days	NA	NA	9/19/19	11/7/19	ETS
843	3.4.3.7.1	Propose training test edits/replacements to CDE	1 day	840	844	9/19/19	9/19/19	ETS
844	3.4.3.7.2	Edit and update training tests and DFAs	15 days	843	845	9/20/19	10/10/19	ETS
845	3.4.3.7.3	CDE reviews training test and DFAs	10 days	844	846	10/11/19	10/24/19	CDE
846	3.4.3.7.4	TDS configuration for updated training tests and DFAs	10 days	845	NA	10/25/19	11/7/19	ETS
847	3.4.3.8	Data Review	2 days	NA	NA	6/16/20	6/17/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
848	3.4.3.8.1	Conduct Data Review Meeting	2 days	NA	NA	6/16/20	6/17/20	ETS
849	3.4.4	CAST	614 days	NA	NA	8/1/18	12/15/20	ETS
850	3.4.4.1	Item Development	265 days	NA	NA	8/1/18	8/14/19	ETS
851	3.4.4.1.1	Item and content specifications	10 days	NA	NA	8/1/19	8/14/19	ETS
852	3.4.4.1.1.1	Review and update the item specifications	10 days	NA	NA	8/1/19	8/14/19	ETS
853	3.4.4.1.2	Item Development Plan	58 days	NA	NA	8/1/18	10/22/18	ETS
854	3.4.4.1.2.1	Draft IDP & Item and Content Specs	20 days	NA	855	8/1/18	8/28/18	ETS
855	3.4.4.1.2.2	CDE Review of IDP & Item and Content Specs	20 days	854	856	8/29/18	9/26/18	ETS
856	3.4.4.1.2.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	18 days	855	857	9/27/18	10/22/18	ETS
857	3.4.4.1.2.4	Complete IDP & Item and Content Specs	0 days	856	NA	10/22/18	10/22/18	ETS
858	3.4.4.1.3	Item Writer Training	48 days	NA	NA	8/15/18	10/22/18	ETS
859	3.4.4.1.3.1	Update Item Writer training materials	15 days	NA	860SS+5d, 862	8/15/18	9/5/18	ETS
860	3.4.4.1.3.2	Identify stakeholders and draft email invitation for Item Writer training	10 days	859SS+5d	861	8/22/18	9/5/18	ETS
861	3.4.4.1.3.3	CDE reviews and approves stakeholders and email invitation to apply for Item Writer training	10 days	860	863	9/6/18	9/19/18	CDE
862	3.4.4.1.3.4	CDE reviews and approves Item Writer training materials	10 days	859	864	9/6/18	9/19/18	CDE
863	3.4.4.1.3.5	ETS recruits item writer training participants	15 days	861	864FS+5d	9/20/18	10/10/18	ETS
864	3.4.4.1.3.6	ETS conducts Item Writer training	3 days	862, 863FS+5d	866FS-35d	10/18/18	10/22/18	ETS
865	3.4.4.1.4	Operational Test Items	140 days	NA	NA	9/4/18	3/25/19	ETS
866	3.4.4.1.4.1	Develop items and flow to CDE for review	105 days	864FS-35d	867SS+20d	9/4/18	2/4/19	ETS
867	3.4.4.1.4.2	Review items as received (review for information only)	95 days	866SS+20d	868FS+2w	10/2/18	2/18/19	CDE
868	3.4.4.1.4.3	Item content and bias committee review	5 days	867FS+2w	869	3/5/19	3/11/19	ETS, CDE
869	3.4.4.1.4.4	Perform post-committee review reconciliation	10 days	868	871	3/12/19	3/25/19	ETS, CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
870	3.4.4.2	Test Construction	100 days	NA	NA	3/26/19	8/12/19	ETS
871	3.4.4.2.1	Create item blocks for operational forms, practice test forms, and training test	5 days	869	877	3/26/19	4/1/19	ETS
872	3.4.4.2.2	Finalize test forms for Practice Test and Training Test; perform summative reviews; release content to AIR	20 days	878	873, 874	6/4/19	7/1/19	ETS
873	3.4.4.2.3	AIR content lockdown for Practice Test and Training Test	0 days	872	881	7/1/19	7/1/19	ETS
874	3.4.4.2.4	Finalize test forms for Summative Operational Test; perform summative reviews; release content to AIR	30 days	872	875	7/2/19	8/12/19	ETS
875	3.4.4.2.5	AIR content lockdown for Practice Test and Training Test	0 days	874	882	8/12/19	8/12/19	ETS
876	3.4.4.3	Accessibility Content	45 days	NA	NA	4/2/19	6/3/19	ETS
877	3.4.4.3.1	Create and source accessibility content (Braille, ASL videos, translations, glossaries, etc)	45 days	871	878SS+35d	4/2/19	6/3/19	ETS
878	3.4.4.3.2	Review and approve accessibility content	10 days	877SS+35d	872	5/21/19	6/3/19	CDE
879	3.4.4.4	Test Design Team meeting	1 day	NA	NA	6/3/19	6/3/19	ETS
880	3.4.4.5	Integrate Test and Test Delivery System	58 days	NA	NA	7/2/19	9/19/19	ETS
881	3.4.4.5.1	Integrate Practice and Training Test forms with Test Delivery System; release for internal UAT	17 days	873	639	7/2/19	7/24/19	ETS
882	3.4.4.5.2	Integrate Summative Operational test forms with Test Delivery System; release for internal UAT	28 days	875	661	8/13/19	9/19/19	ETS
883	3.4.4.6	Training and Practice Tests available to schools	0 days	648	NA	9/3/19	9/3/19	ETS
884	3.4.4.7	Summative Operational Test Administration	134 days	670FS-1d	886SS+60d	1/7/20	7/10/20	ETS
885	3.4.4.8	Human CR scoring	86 days	NA	NA	3/31/20	7/28/20	ETS
886	3.4.4.8.1	Prepare Rangefinding materials and provide to CDE	10 days	884SS+60d	887	3/31/20	4/13/20	ETS
887	3.4.4.8.2	Review and approve Rangefinding materials	10 days	886	888FS+5d	4/14/20	4/27/20	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
888	3.4.4.8.3	Conduct Rangefinding meeting	1 day	887FS+5d	889	5/5/20	5/5/20	ETS
889	3.4.4.8.4	Configure scoring system with CAST materials	10 days	888	890	5/6/20	5/19/20	ETS
890	3.4.4.8.5	Human scoring of CR's	50 days	889	892SS+7d	5/20/20	7/28/20	ETS
891	3.4.4.9	Post-admin statistical analysis	8 days	NA	NA	5/29/20	6/9/20	ETS
892	3.4.4.9.1	Item and DIF analyses	8 days	890SS+7d	894	5/29/20	6/9/20	ETS
893	3.4.4.10	Technical Report	110 days	NA	NA	7/15/20	12/15/20	ETS
894	3.4.4.10.1	Create technical report and submit to CDE for review	90 days	892	895	7/15/20	11/17/20	ETS
895	3.4.4.10.2	Review and approve technical report	10 days	894	896	11/18/20	12/1/20	CDE
896	3.4.4.10.3	Finalize and post technical report	10 days	895	NA	12/2/20	12/15/20	ETS
897	3.5	ELPAC Development and Administration	567 days	NA	NA	4/4/19	6/4/21	ETS
898	3.5.1	ELPAC CBA Development and Administration	302 days	NA	NA	4/4/19	5/29/20	ETS
899	3.5.1.1	Develop CBA Usability Pilot and Cog Labs Plan/Design Document	8 days	NA	NA	4/4/19	4/15/19	ETS
900	3.5.1.2	Convert PBT items for Field Test and Cog Labs	35 days	NA	901FS-10d	4/4/19	5/22/19	ETS
901	3.5.1.3	Build Field Test and Cog Lab Forms	30 days	900FS-10d	904	5/9/19	6/19/19	ETS
902	3.5.1.4	Administer CBA SA and IA Field Test and Cog Labs	20 days	NA	903	9/9/19	10/4/19	ETS
903	3.5.1.5	Conduct Field Test and Cog Labs Data Analysis	55 days	902	NA	10/7/19	12/20/19	ETS
904	3.5.1.6	Construct SA Operational Forms	35 days	901	NA	9/9/19	10/25/19	ETS
905	3.5.1.7	SA Online Administration	85 days	NA	NA	2/3/20	5/29/20	ETS
906	3.5.2	ELPAC Paper Development and Administration	262 days	NA	NA	7/1/19	6/30/20	ETS
907	3.5.2.1	IA Paper Administration	262 days	NA	NA	7/1/19	6/30/20	ETS
908	3.5.3	ELPAC ALT CBA Development	445 days	NA	NA	9/23/19	6/4/21	ETS
909	3.5.3.1	Develop Field Test Plan and Specifications	100 days	NA	NA	9/23/19	2/7/20	ETS
910	3.5.3.2	Develop Field Test items and forms	180 days	NA	911FS+20d	1/6/20	9/11/20	ETS
911	3.5.3.3	CDE review and UAT	40 days	910FS+20d	912FS+30d	10/12/20	12/4/20	CDE
912	3.5.3.4	Administer ALT CBA Operational Field Test	50 days	911FS+30d	913FS+30d	1/18/21	3/26/21	ETS
913	3.5.3.5	Prepare for and Conduct ALT Standard Setting	20 days	912FS+30d	NA	5/10/21	6/4/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
914	3.6	Scoring	219 days	NA	NA	10/7/19	8/6/20	ETS
915	3.6.1	Summative Computer Based Assessments	121 days	NA	NA	1/29/20	7/15/20	ETS
916	3.6.1.1	Hand and AI scoring occurs	121 days	708SS+5d, 717SS+5d	917SS, 918SS	1/29/20	7/15/20	ETS
917	3.6.1.2	Perform scoring QC	121 days	916SS	NA	1/29/20	7/15/20	ETS
918	3.6.1.3	Final scoring occurs	121 days	916SS	961SS	1/29/20	7/15/20	ETS
919	3.6.2	Psychometric Analysis	38 days	NA	NA	6/16/20	8/6/20	ETS
920	3.6.2.1	Conduct Item Analysis of CAASPP Summative assessments	16 days	708FS-40d	921	6/16/20	7/7/20	ETS
921	3.6.2.2	Item Analysis Files delivered to CDE	1 day	920	922FS+20d, 968	7/8/20	7/8/20	ETS
922	3.6.2.3	Facilitate Alternate Assessment Data Review meeting	1 day	921FS+20d	NA	8/6/20	8/6/20	ETS
923	3.6.3	Appeals	200 days	NA	NA	10/7/19	7/10/20	ETS
924	3.6.3.1	Monitor appeals	200 days	NA	NA	10/7/19	7/10/20	ETS
925	3.7	Reporting	274 days	NA	NA	12/9/19	12/24/20	ETS
926	3.7.1	Summative Assessment	192 days	NA	NA	12/9/19	9/1/20	ETS
927	3.7.1.1	Delivery of Data Files to CDE	154 days	NA	NA	1/29/20	8/31/20	ETS
928	3.7.1.1.1	Prepare student data files	90 days	708SS+5d, 717SS+5d	NA	1/29/20	6/2/20	ETS
929	3.7.1.1.2	Post initial student data files (P1) to SFTP site for CDE	1 day	NA	NA	6/30/20	6/30/20	ETS
930	3.7.1.1.3	Post final data files (P2) to SFTP site for CDE	1 day	NA	968	8/31/20	8/31/20	ETS
931	3.7.1.2	Online Reporting Systems	107 days	NA	NA	1/20/20	6/16/20	ETS
932	3.7.1.2.1	Online Reporting Systems Setup	1 day	NA	NA	1/30/20	1/30/20	ETS
933	3.7.1.2.1.1	Deploy online reporting system	1 day	NA	936	1/30/20	1/30/20	ETS
934	3.7.1.2.2	Student Level Reporting	97 days	NA	NA	1/31/20	6/15/20	ETS
935	3.7.1.2.2.1	Provide final individual scores within 4 weeks of student online test completion	90 days	708SS+20d	NA	2/11/20	6/15/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
936	3.7.1.2.2.2	Launch ISR availability within online reporting system	1 day	933	938FS+50d	1/31/20	1/31/20	ETS
937	3.7.1.2.3	School Level Reporting	1 day	NA	NA	4/13/20	4/13/20	ETS
938	3.7.1.2.3.1	Launch school level reporting functionality	1 day	936FS+50d	940FS+10d	4/13/20	4/13/20	ETS
939	3.7.1.2.4	LEA Level Reporting	1 day	NA	NA	4/28/20	4/28/20	ETS
940	3.7.1.2.4.1	Launch LEA level reporting functionality	1 day	938FS+10d	NA	4/28/20	4/28/20	ETS
941	3.7.1.2.5	State Level Reporting	107 days	NA	NA	1/20/20	6/16/20	ETS
942	3.7.1.2.5.1	State Aggregate Reporting Website	107 days	NA	NA	1/20/20	6/16/20	ETS
943	3.7.1.2.5.1.1	Develop business requirements	40 days	624FS+80d	944	1/20/20	3/13/20	ETS
944	3.7.1.2.5.1.2	CDE provides text for site	1 day	943	945	3/16/20	3/16/20	CDE
945	3.7.1.2.5.1.3	Construct web reporting site	30 days	944	946	3/17/20	4/27/20	ETS
946	3.7.1.2.5.1.4	CDE UAT of Web Reporting Site	10 days	945	947	4/28/20	5/11/20	CDE
947	3.7.1.2.5.1.5	CDE provides feedback on changes needed	10 days	946	948	5/12/20	5/25/20	CDE
948	3.7.1.2.5.1.6	Apply changes	5 days	947	949	5/26/20	6/1/20	ETS
949	3.7.1.2.5.1.7	CDE second UAT	5 days	948	950	6/2/20	6/8/20	CDE
950	3.7.1.2.5.1.8	Finalize site with CDE updates	5 days	949	951	6/9/20	6/15/20	ETS
951	3.7.1.2.5.1.9	Deploy State level reporting website	1 day	950	NA	6/16/20	6/16/20	ETS
952	3.7.1.3	Individual Student Report	162 days	NA	NA	12/9/19	7/21/20	ETS
953	3.7.1.3.1	Develop individual student report	40 days	624FS+50d	954	12/9/19	1/31/20	ETS
954	3.7.1.3.2	CDE reviews individual student report	10 days	953	955	2/3/20	2/14/20	CDE
955	3.7.1.3.3	Update individual student report	3 days	954	956	2/17/20	2/19/20	ETS
956	3.7.1.3.4	CDE 2nd review of individual student report	5 days	955	957	2/20/20	2/26/20	CDE
957	3.7.1.3.5	Apply updates & submit to CDE for approval	3 days	956	958	2/27/20	3/2/20	ETS
958	3.7.1.3.6	Conduct SSR Pilot Review meeting	1 day	957	959	5/12/20	5/12/20	ETS
959	3.7.1.3.7	Post Student Score Reports (SSR) for LEAs	50 days	958	NA	5/13/20	7/21/20	ETS
960	3.7.1.4	Rescore Process	155 days	NA	NA	1/29/20	9/1/20	ETS
961	3.7.1.4.1	LEAs request rescores	140 days	918SS	962SS+30d	1/29/20	8/11/20	ETS
962	3.7.1.4.2	Provide rescore results	120 days	961SS+30d	963SS+5d	3/11/20	8/25/20	ETS
963	3.7.1.4.3	Invoicing for rescores occurs	120 days	962SS+5d	NA	3/18/20	9/1/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
964	3.7.2	Understanding SSRs Guides	31 days	NA	NA	4/27/20	6/8/20	ETS
965	3.7.2.1	Produce Understanding SSRs guides in 5 languages	30 days	624FS+150d	966	4/27/20	6/5/20	ETS
966	3.7.2.2	Post Understanding SSRs guides in 5 languages	1 day	965	NA	6/8/20	6/8/20	ETS
967	3.7.3	Technical Report	83 days	NA	NA	9/1/20	12/24/20	ETS
968	3.7.3.1	Develop Technical Manual	40 days	921, 930	969	9/1/20	10/26/20	ETS
969	3.7.3.2	CDE reviews Technical Report and returns edits to ETS	20 days	968	970	10/27/20	11/23/20	CDE
970	3.7.3.3	ETS applies edits and delivers final Technical Report to CDE	10 days	969	971	11/24/20	12/7/20	ETS
971	3.7.3.4	CDE 2nd review of Technical Report	10 days	970	972	12/8/20	12/21/20	CDE
972	3.7.3.5	Apply updates and deliver Technical Manual to CDE for approval	3 days	971	NA	12/22/20	12/24/20	ETS
973	4	2020–21 Administration Year	632 days	NA	NA	8/1/19	12/31/21	ETS
974	4.1	Project Administration	434 days	NA	NA	3/31/20	11/26/21	ETS
975	4.1.1	Project Management	368 days	NA	NA	7/1/20	11/26/21	ETS
976	4.1.1.1	Project Management Begins	0 days	NA	995, 982FS+53d, 980, 990, 992, 993, 997, 999FS-20d, 1005, 1006, 1008, 1012, 1013, 1020, 1023FS+124d, 1083, 1007	7/1/20	7/1/20	ETS
977	4.1.1.2	Project Management Plan (PMP) & subplans	261 days	NA	NA	7/1/20	6/30/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
978	4.1.1.2.1	Update project management plan and subplans as appropriate for process improvements	261 days	7	NA	7/1/20	6/30/21	ETS
979	4.1.1.3	Risk & Issue Tracking	261 days	NA	NA	7/1/20	6/30/21	ETS
980	4.1.1.3.1	Conduct Monthly Risk Review Meeting with CDE (Twice Monthly)	261 days	976	NA	7/1/20	6/30/21	ETS
981	4.1.1.4	Schedule Management	315 days	NA	NA	9/14/20	11/26/21	ETS
982	4.1.1.4.1	Complete annual update to Work Breakdown Structure	10 days	976FS+53d	984	9/14/20	9/25/20	ETS
983	4.1.1.4.2	2020–21 Schedule of Deliverables (SoD)	305 days	NA	NA	9/28/20	11/26/21	ETS
984	4.1.1.4.2.1	Prepare 2020–21 SoD	100 days	982	985	9/28/20	2/12/21	ETS
985	4.1.1.4.2.2	Review and provide feedback on 2020–21 SoD Cycle 1	20 days	984	986	2/15/21	3/12/21	CDE
986	4.1.1.4.2.3	Review and approve 2020–21 SoD and Deliverables crosswalk	20 days	985	987	3/15/21	4/9/21	CDE
987	4.1.1.4.2.4	Lock baseline dates in 2020–21 SoD	1 day	986	988	4/12/21	4/12/21	ETS
988	4.1.1.4.2.5	Conduct project schedule execution and SoD Variance Summary reporting	164 days	987	NA	4/13/21	11/26/21	ETS
989	4.1.1.5	Change Management	261 days	NA	NA	7/1/20	6/30/21	ETS
990	4.1.1.5.1	Conduct Monthly Change Control Meeting with CDE (Twice Monthly)	261 days	976	NA	7/1/20	6/30/21	ETS
991	4.1.1.6	Status Reporting	261 days	NA	NA	7/1/20	6/30/21	ETS
992	4.1.1.6.1	Submit Monthly Invoice and Accomplishments Report to CDE	261 days	976	NA	7/1/20	6/30/21	ETS
993	4.1.1.6.2	Submit Weekly Status Report to CDE	261 days	976	NA	7/1/20	6/30/21	ETS
994	4.1.1.7	Monthly Progress Reports	261 days	NA	NA	7/1/20	6/30/21	ETS
995	4.1.1.7.1	Deliver monthly progress reports to CDE	261 days	976	NA	7/1/20	6/30/21	ETS
996	4.1.1.8	Continuous Improvement Plan	261 days	NA	NA	7/1/20	6/30/21	ETS
997	4.1.1.8.1	ETS works with the CDE to enhance a continuous improvement plan	261 days	976	NA	7/1/20	6/30/21	ETS, CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
998	4.1.2	Program Meetings	327 days	NA	NA	3/31/20	6/30/21	ETS
999	4.1.2.1	Conduct internal ETS planning meeting	2 days	976FS-20d	1000FS+31d	6/3/20	6/4/20	ETS
1000	4.1.2.2	Conduct annual planning meeting	2 days	999FS+31d	1001, 1002, 1003FS+15d, 1020SS	7/20/20	7/21/20	ETS, CDE
1001	4.1.2.3	Conduct Reporting Specifications Intake meeting	1 day	1000	1004	7/22/20	7/22/20	ETS
1002	4.1.2.4	Prepare meeting minutes/participant list and deliver to CDE	5 days	1000	NA	7/22/20	7/28/20	ETS
1003	4.1.2.5	Submit final Program Improvements Plan	1 day	1000FS+15d	NA	8/12/20	8/12/20	ETS
1004	4.1.2.6	Conduct manuals and context-sensitive help intake meeting	2 days	1001	NA	7/23/20	7/24/20	ETS
1005	4.1.2.7	Conduct weekly internal status meetings	261 days	976	NA	7/1/20	6/30/21	ETS
1006	4.1.2.8	Conduct weekly CDE management meetings	261 days	976	NA	7/1/20	6/30/21	ETS
1007	4.1.2.9	Conduct bi-weekly coordination with the CDE Outreach and Technical Contractor	261 days	976	NA	7/1/20	6/30/21	ETS
1008	4.1.2.10	Conduct additional meetings as needed	261 days	976	NA	7/1/20	6/30/21	ETS
1009	4.1.2.11	State Board Meetings	261 days	NA	NA	7/1/20	6/30/21	ETS
1010	4.1.2.11.1	Attend State Board meetings	261 days	38	NA	7/1/20	6/30/21	ETS, CDE
1011	4.1.2.12	Technical Advisory Group (TAG) Meetings	261 days	NA	NA	7/1/20	6/30/21	ETS
1012	4.1.2.12.1	Work with the CDE to develop TAG agendas	261 days	976	NA	7/1/20	6/30/21	ETS, CDE
1013	4.1.2.12.2	Attend TAG meetings	261 days	976	NA	7/1/20	6/30/21	ETS, CDE
1014	4.1.2.13	Network Coordination Meetings	198 days	NA	NA	3/31/20	12/31/20	ETS
1015	4.1.2.13.1	Q1 Network Coordination Meeting	1 day	NA	1016	3/31/20	3/31/20	ETS
1016	4.1.2.13.2	Q2 Network Coordination Meeting	1 day	1015	1017	6/30/20	6/30/20	ETS
1017	4.1.2.13.3	Q3 Network Coordination Meeting	1 day	1016	1018	9/30/20	9/30/20	ETS
1018	4.1.2.13.4	Q4 Network Coordination Meeting	1 day	1017	NA	12/31/20	12/31/20	ETS
1019	4.1.3	Test Security	338 days	NA	NA	7/1/20	10/15/21	ETS
1020	4.1.3.1	Update and deliver the Test Security Plan for the 2021 administration	30 days	976, 1000SS	NA	7/20/20	8/28/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1021	4.1.3.2	Communication from ETS to LEAS requesting yet to be submitted designations forms and security agreements	77 days	NA	NA	8/17/20	12/1/20	ETS
1022	4.1.3.3	Monitor social media sites for test security breaches	261 days	NA	NA	7/1/20	6/30/21	ETS
1023	4.1.3.4	Perform on-site security audit visits	214 days	976FS+124d	1024SS	12/22/20	10/15/21	ETS
1024	4.1.3.5	Investigate test security breaches as needed	214 days	1023SS	1025SS+5d	12/22/20	10/15/21	ETS
1025	4.1.3.6	Deliver audit reports to CDE	209 days	1024SS+5d	NA	12/29/20	10/15/21	ETS
1026	4.2	Program Support	458 days	NA	NA	10/1/19	7/1/21	ETS
1027	4.2.1	LEA Management and Communications	152 days	NA	NA	5/1/20	11/30/20	ETS
1028	4.2.1.1	Communication from ETS to LEAS requesting school hierarchy information	1 day	NA	NA	5/1/20	5/1/20	ETS
1029	4.2.1.2	Collect LEA CAASPP coordinator designation forms and security agreements	50 days	NA	1030FS-30d	9/2/20	11/10/20	ETS
1030	4.2.1.3	Input updates into the LEA CAASPP coordinator database	43 days	1029FS-30d	1031	9/30/20	11/27/20	ETS
1031	4.2.1.4	Provide CDE access to the CAASPP coordinator database	1 day	1030	NA	11/30/20	11/30/20	ETS
1032	4.2.2	Digital Library	261 days	NA	NA	7/1/20	6/30/21	ETS
1033	4.2.2.1	Provide access to and customer support for Digital Library	261 days	NA	NA	7/1/20	6/30/21	ETS
1034	4.2.2.2	Marketing Efforts	261 days	NA	NA	7/1/20	6/30/21	ETS
1035	4.2.3	LEA Training	254 days	NA	NA	7/1/20	6/21/21	ETS
1036	4.2.3.1	CAASPP Workshops, Webcasts, and Online Videos	251 days	NA	NA	7/6/20	6/21/21	ETS
1037	4.2.3.1.1	In-Person Workshops	251 days	NA	NA	7/6/20	6/21/21	ETS
1038	4.2.3.1.1.1	July-August 2020 (Summer Scoring Institutes)	35 days	NA	NA	7/6/20	8/21/20	ETS
1039	4.2.3.1.1.1.1	Summer Scoring Workshop (North, Central and South)	35 days	NA	NA	7/6/20	8/21/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1040	4.2.3.1.1.2	September - October 2020 (Interim Hand Scoring Workshops)	35 days	NA	NA	9/4/20	10/22/20	ETS
1041	4.2.3.1.1.2.1	Interim Assessment Hand Scoring Workshop (North, Central and South)	35 days	NA	NA	9/4/20	10/22/20	ETS
1042	4.2.3.1.1.2.2	Digital Library & Interim Assessment Clinics (North, Central and South)	35 days	NA	NA	9/4/20	10/22/20	ETS
1043	4.2.3.1.1.3	January - February 2021 (Pretest Workshops)	30 days	NA	NA	1/7/21	2/17/21	ETS
1044	4.2.3.1.1.3.1	Present Pretest Workshops throughout the state	30 days	NA	NA	1/7/21	2/17/21	ETS
1045	4.2.3.1.1.4	May - June 2021 (Post-Test Workshops)	25 days	NA	NA	5/18/21	6/21/21	ETS
1046	4.2.3.1.1.4.1	Present Post-Test Workshops throughout the state	25 days	NA	NA	5/18/21	6/21/21	ETS
1047	4.2.3.1.2	Webcast Only	1 day	NA	NA	5/13/21	5/13/21	ETS
1048	4.2.3.1.2.1	Pretest Workshop - 2 hours (2020 - 2021)	1 day	NA	NA	5/13/21	5/13/21	ETS
1049	4.2.3.1.3	Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/20	11/26/20	ETS
1050	4.2.3.1.3.1	Present Short Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/4/20	11/26/20	ETS
1051	4.2.3.2	Manuals	220 days	NA	NA	7/1/20	5/4/21	ETS
1052	4.2.3.2.1	2020–21 Manuals	220 days	NA	NA	7/1/20	5/4/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1053	4.2.3.2.1.1	2020–21 Manuals begin	0 days	NA	1056FS-1d, 1058FS-1d, 1060FS-1d, 1062FS-1d, 1064FS+1d, 1067FS+69d, 1069FS+69d, 1072FS+155d, 1074FS+155d, 1076FS+155d	7/2/20	7/2/20	ETS
1054	4.2.3.2.1.2	Manuals needed for Phase 1	78 days	NA	NA	7/1/20	10/16/20	ETS
1055	4.2.3.2.1.2.1	TOMS Pre-Administration Guide for CAASPP Testing	45 days	NA	NA	7/1/20	9/1/20	ETS
1056	4.2.3.2.1.2.1.1	Revise TOMS Pre-Administration Guide for CAASPP Testing	45 days	1053FS-1d	NA	7/1/20	9/1/20	ETS
1057	4.2.3.2.1.2.2	Technical Specifications and Configuration Guide for CAASPP Testing	45 days	NA	NA	7/1/20	9/1/20	ETS
1058	4.2.3.2.1.2.2.1	Revise Technical Specifications and Configuration Guide for CAASPP Testing	45 days	1053FS-1d	NA	7/1/20	9/1/20	ETS
1059	4.2.3.2.1.2.3	Interim Assessment User's Guide	45 days	NA	NA	7/1/20	9/1/20	ETS
1060	4.2.3.2.1.2.3.1	Revise IA User Guide refresh	45 days	1053FS-1d	NA	7/1/20	9/1/20	ETS
1061	4.2.3.2.1.2.4	Guide to CAASPP Completion Status and Roster Management	45 days	NA	NA	7/1/20	9/1/20	ETS
1062	4.2.3.2.1.2.4.1	Revise Guide to CAASPP Completion Status and Roster Management	45 days	1053FS-1d	NA	7/1/20	9/1/20	ETS
1063	4.2.3.2.1.2.5	Accessibility Guide for CAASPP Testing	76 days	NA	NA	7/3/20	10/16/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1064	4.2.3.2.1.2.5.1	Revise Accessibility Guide for CAASPP Testing	76 days	1053FS+1d	NA	7/3/20	10/16/20	ETS
1065	4.2.3.2.1.3	Manuals needed for Phase 2	65 days	NA	NA	10/7/20	1/5/21	ETS
1066	4.2.3.2.1.3.1	Online Test Administration Manual for CAASPP Testing	65 days	NA	NA	10/7/20	1/5/21	ETS
1067	4.2.3.2.1.3.1.1	Revise Online TAM	65 days	1053FS+69d	NA	10/7/20	1/5/21	ETS
1068	4.2.3.2.1.3.2	Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	NA	NA	10/7/20	1/5/21	ETS
1069	4.2.3.2.1.3.2.1	Revise Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	1053FS+69d	NA	10/7/20	1/5/21	ETS
1070	4.2.3.2.1.4	Manuals needed for Phase 3	64 days	NA	NA	2/4/21	5/4/21	ETS
1071	4.2.3.2.1.4.1	Online Reporting System User Guide for California	64 days	NA	NA	2/4/21	5/4/21	ETS
1072	4.2.3.2.1.4.1.1	Revise Online Reporting System User Guide for California	64 days	1053FS+155d, 1069	NA	2/4/21	5/4/21	ETS
1073	4.2.3.2.1.4.2	CAASPP Security Incidents and Appeals Procedure Guide	64 days	NA	NA	2/4/21	5/4/21	ETS
1074	4.2.3.2.1.4.2.1	Revise Security and Test Administration Procedure Guide	64 days	1053FS+155d, 1069	NA	2/4/21	5/4/21	ETS
1075	4.2.3.2.1.4.3	CAASPP Post-Test Guide	64 days	NA	NA	2/4/21	5/4/21	ETS
1076	4.2.3.2.1.4.3.1	Revise CAASPP Post-Test Guide	64 days	1053FS+155d, 1069	NA	2/4/21	5/4/21	ETS
1077	4.2.4	CalTAC Support	262 days	NA	NA	7/1/20	7/1/21	ETS
1078	4.2.4.1	Train CalTAC staff on the CAASPP program	10 days	NA	1079SS	7/1/20	7/14/20	ETS
1079	4.2.4.2	Establish help desk technical phone, web chat and email support	10 days	1078SS	1080	7/1/20	7/14/20	ETS
1080	4.2.4.3	Perform technology support site visits as needed	252 days	1079	NA	7/15/20	7/1/21	ETS
1081	4.2.5	Data Driven Improvement	391 days	NA	NA	10/1/19	3/30/21	ETS
1082	4.2.5.1	Post-Test Focus Groups for Administrators	82 days	NA	NA	7/1/20	10/22/20	ETS
1083	4.2.5.1.1	Prepare materials for Post-Test Focus Groups	25 days	976	1084	7/1/20	8/4/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1084	4.2.5.1.2	Review and approve materials for post-test focus groups	10 days	1083	1085	8/5/20	8/18/20	CDE
1085	4.2.5.1.3	Conduct Sacramento focus group	2 days	1084	1086FS+3d	8/19/20	8/20/20	ETS
1086	4.2.5.1.4	Conduct Southern CA focus group	2 days	1085FS+3d	1087	8/26/20	8/27/20	ETS
1087	4.2.5.1.5	Compile results and recommended program improvements to CDE	40 days	1086	NA	8/28/20	10/22/20	ETS
1088	4.2.5.2	Test Coordinator Advisory Group	162 days	NA	NA	8/17/20	3/30/21	ETS
1089	4.2.5.2.1	Prepare materials for Test Coordinator Advisory Group 1	20 days	NA	1090	8/17/20	9/11/20	ETS
1090	4.2.5.2.2	Conduct September Advisory Group 1	1 day	1089	1091, 1092FS+80d	9/14/20	9/14/20	ETS
1091	4.2.5.2.3	Compile results and recommended program improvements to CDE	40 days	1090	NA	9/15/20	11/9/20	ETS
1092	4.2.5.2.4	Prepare materials for Test Coordinator Advisory Group 2	20 days	1090FS+80d	1093	1/5/21	2/1/21	ETS
1093	4.2.5.2.5	Conduct February Advisory Group 2	1 day	1092	1094	2/2/21	2/2/21	ETS
1094	4.2.5.2.6	Compile results and recommended program improvements to CDE	40 days	1093	NA	2/3/21	3/30/21	ETS
1095	4.2.5.3	Focus Group Meetings	100 days	NA	NA	10/1/19	2/17/20	ETS
1096	4.2.5.3.1	Prepare materials for caaspp.org Focus Groups	20 days	NA	1097	10/1/19	10/28/19	ETS
1097	4.2.5.3.2	Conduct additional Focus Groups as requested	40 days	1096	1098	10/29/19	12/23/19	ETS
1098	4.2.5.3.3	Compile results and recommended program improvements to CDE	40 days	1097	NA	12/24/19	2/17/20	ETS
1099	4.2.5.4	ETS provides updated draft of concurrent usage monitoring plan to CDE	0 days	NA	NA	10/1/19	10/1/19	ETS
1100	4.3	CAASPP Assessment System Releases	376 days	NA	NA	2/6/20	7/15/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1101	4.3.1	Operational Test Administration Begins	0 days	NA	1400FS+80d, 1410FS+50d, 1422FS+150d, 1180, 1181, 1182, 1187	9/30/20	9/30/20	ETS
1102	4.3.2	Testing Systems	299 days	NA	NA	2/6/20	3/30/21	ETS
1103	4.3.2.1	Assessment Delivery System Releases	299 days	NA	NA	2/6/20	3/30/21	ETS
1104	4.3.2.1.1	Phase 1 Release (Administration roll over and Interim Assessment launch)	149 days	NA	NA	2/6/20	9/1/20	ETS
1105	4.3.2.1.1.1	Preparation	30 days	NA	NA	2/6/20	3/18/20	ETS
1106	4.3.2.1.1.1.1	Meet with CDE to review requirements	20 days	NA	1107FS-10d	2/6/20	3/4/20	ETS
1107	4.3.2.1.1.1.2	Work with CDE to schedule and communicate system downtimes	20 days	1106FS-10d	1109	2/20/20	3/18/20	ETS
1108	4.3.2.1.1.2	Functional Requirements	40 days	NA	NA	3/19/20	5/13/20	ETS
1109	4.3.2.1.1.2.1	Create functional requirements and submit to CDE for review	25 days	1107	1110	3/19/20	4/22/20	ETS
1110	4.3.2.1.1.2.2	CDE reviews functional requirements	10 days	1109	1111	4/23/20	5/6/20	ETS
1111	4.3.2.1.1.2.3	Work with CDE to finalize functional requirements	5 days	1110	1113, 1128FS+7d	5/7/20	5/13/20	ETS
1112	4.3.2.1.1.3	Development and Testing	50 days	NA	NA	5/14/20	7/22/20	ETS
1113	4.3.2.1.1.3.1	System development	40 days	1111	1114FS-20d	5/14/20	7/8/20	ETS
1114	4.3.2.1.1.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	1113FS-20d	1116	6/11/20	7/22/20	ETS
1115	4.3.2.1.1.4	User Acceptance Testing	25 days	NA	NA	7/23/20	8/26/20	ETS
1116	4.3.2.1.1.4.1	Internal ETS/AIR UAT	5 days	11, 141, 351	1117	7/23/20	7/29/20	ETS
1117	4.3.2.1.1.4.2	Internal fix cycle	5 days	1116	1118	7/30/20	8/5/20	ETS
1118	4.3.2.1.1.4.3	CDE initial UAT	5 days	1117	1119	8/6/20	8/12/20	CDE
1119	4.3.2.1.1.4.4	Fix cycle	5 days	1118	1120	8/13/20	8/19/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1120	4.3.2.1.1.4.5	CDE final UAT	5 days	1119	1122	8/20/20	8/26/20	CDE
1121	4.3.2.1.1.5	Phase 1 Go-Live	4 days	NA	NA	8/27/20	9/1/20	ETS
1122	4.3.2.1.1.5.1	Conduct release review call with CDE	1 day	1120	1123	8/27/20	8/27/20	ETS
1123	4.3.2.1.1.5.2	CDE approves release	0 days	1122	1124	8/27/20	8/27/20	CDE
1124	4.3.2.1.1.5.3	Software launch	3 days	1123	1125	8/28/20	9/1/20	ETS
1125	4.3.2.1.1.5.4	Software go-live	0 days	1124	1353	9/1/20	9/1/20	ETS
1126	4.3.2.1.2	Phase 2 Release (Summative Assessment launch)	163 days	NA	NA	5/25/20	1/6/21	ETS
1127	4.3.2.1.2.1	Preparation	30 days	NA	NA	5/25/20	7/3/20	ETS
1128	4.3.2.1.2.1.1	Meet with CDE to review requirements	20 days	1111FS+7d	1129FS-10d	5/25/20	6/19/20	ETS
1129	4.3.2.1.2.1.2	Work with CDE to schedule and communicate system downtimes	20 days	1128FS-10d	1131	6/8/20	7/3/20	ETS
1130	4.3.2.1.2.2	Functional Requirements	54 days	NA	NA	7/6/20	9/17/20	ETS
1131	4.3.2.1.2.2.1	Create functional requirements and submit to CDE for review	39 days	1129	1132	7/6/20	8/27/20	ETS
1132	4.3.2.1.2.2.2	CDE reviews functional requirements	10 days	1131	1133	8/28/20	9/10/20	ETS
1133	4.3.2.1.2.2.3	Work with CDE to finalize functional requirements	5 days	1132	1135, 1150FS+5d	9/11/20	9/17/20	ETS
1134	4.3.2.1.2.3	Development and Testing	50 days	NA	NA	9/18/20	11/26/20	ETS
1135	4.3.2.1.2.3.1	System development	40 days	1133	1136FS-20d	9/18/20	11/12/20	ETS
1136	4.3.2.1.2.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	1135FS-20d	1138	10/16/20	11/26/20	ETS
1137	4.3.2.1.2.4	User Acceptance Testing	25 days	NA	NA	11/27/20	12/31/20	ETS
1138	4.3.2.1.2.4.1	Internal ETS/AIR UAT	5 days	11, 361, 352	1139	11/27/20	12/3/20	ETS
1139	4.3.2.1.2.4.2	Internal fix cycle	5 days	1138	1140	12/4/20	12/10/20	ETS
1140	4.3.2.1.2.4.3	CDE initial UAT	5 days	1139	1141	12/11/20	12/17/20	CDE
1141	4.3.2.1.2.4.4	Fix cycle	5 days	1140	1142	12/18/20	12/24/20	ETS
1142	4.3.2.1.2.4.5	CDE final UAT	5 days	1141	1144	12/25/20	12/31/20	CDE
1143	4.3.2.1.2.5	Phase 2 Go-Live	4 days	NA	NA	1/1/21	1/6/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1144	4.3.2.1.2.5.1	Conduct release review call with CDE	1 day	1142	1145	1/1/21	1/1/21	ETS
1145	4.3.2.1.2.5.2	CDE approves release	0 days	1144	1146	1/1/21	1/1/21	CDE
1146	4.3.2.1.2.5.3	Software launch	3 days	1145	1147	1/4/21	1/6/21	ETS
1147	4.3.2.1.2.5.4	Software go-live	0 days	1146	1354FS-1d	1/6/21	1/6/21	ETS
1148	4.3.2.1.3	Phase 3 Release (Reporting System)	133 days	NA	NA	9/25/20	3/30/21	ETS
1149	4.3.2.1.3.1	Preparation	25 days	NA	NA	9/25/20	10/29/20	ETS
1150	4.3.2.1.3.1.1	Meet with CDE to review requirements	20 days	1133FS+5d	1151FS-10d	9/25/20	10/22/20	ETS
1151	4.3.2.1.3.1.2	Work with CDE to schedule and communicate system downtimes	15 days	1150FS-10d	1153	10/9/20	10/29/20	ETS
1152	4.3.2.1.3.2	Functional Requirements	40 days	NA	NA	10/30/20	12/24/20	ETS
1153	4.3.2.1.3.2.1	Create functional requirements and submit to CDE for review	25 days	1151	1154	10/30/20	12/3/20	ETS
1154	4.3.2.1.3.2.2	CDE reviews functional requirements	10 days	1153	1155	12/4/20	12/17/20	ETS
1155	4.3.2.1.3.2.3	Work with CDE to finalize functional requirements	5 days	1154	1157	12/18/20	12/24/20	ETS
1156	4.3.2.1.3.3	Development and Testing	39 days	NA	NA	12/25/20	2/17/21	ETS
1157	4.3.2.1.3.3.1	System development	34 days	1155	1158FS-20d	12/25/20	2/10/21	ETS
1158	4.3.2.1.3.3.2	Software and performance testing (provide performance testing results to CDE)	25 days	1157FS-20d	1160	1/14/21	2/17/21	ETS
1159	4.3.2.1.3.4	User Acceptance Testing	25 days	NA	NA	2/18/21	3/24/21	ETS
1160	4.3.2.1.3.4.1	Internal ETS/AIR UAT	5 days	1158	1161	2/18/21	2/24/21	ETS
1161	4.3.2.1.3.4.2	Internal fix cycle	5 days	1160	1162	2/25/21	3/3/21	ETS
1162	4.3.2.1.3.4.3	CDE initial UAT	5 days	1161	1163	3/4/21	3/10/21	CDE
1163	4.3.2.1.3.4.4	Fix cycle	5 days	1162	1164	3/11/21	3/17/21	ETS
1164	4.3.2.1.3.4.5	CDE final UAT	5 days	1163	1166	3/18/21	3/24/21	CDE
1165	4.3.2.1.3.5	Phase 3 Go-Live	4 days	NA	NA	3/25/21	3/30/21	ETS
1166	4.3.2.1.3.5.1	Conduct release review call with CDE	1 day	1164	1167	3/25/21	3/25/21	ETS
1167	4.3.2.1.3.5.2	CDE approves release	0 days	1166	1168	3/25/21	3/25/21	CDE
1168	4.3.2.1.3.5.3	Software launch	3 days	1167	1169	3/26/21	3/30/21	ETS
1169	4.3.2.1.3.5.4	Software go-live	0 days	1168	NA	3/30/21	3/30/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1170	4.3.3	Interim Assessment Registration, Test Content and Ancillaries	40 days	NA	NA	7/1/20	8/25/20	ETS
1171	4.3.3.1	New enhanced test packages available from Smarter Balanced	0 days	NA	1172	7/1/20	7/1/20	ETS
1172	4.3.3.2	Process new test packages	20 days	1171	11, 731, 174	7/1/20	7/28/20	ETS
1173	4.3.3.3	Updated Interim Comprehensive Assessment (summative clone) (ICA) launched	1 day	1172	NA	7/29/20	7/29/20	ETS
1174	4.3.3.4	Updated Interim Assessment Blocks (IAB) launched	1 day	1172	NA	7/29/20	7/29/20	ETS
1175	4.3.3.5	Configure Smarter Balanced System User Guide for CA	40 days	NA	1176SS	7/1/20	8/25/20	ETS
1176	4.3.3.6	Configure Smarter Balanced Scoring Guide for CA	40 days	1175SS	1177SS	7/1/20	8/25/20	ETS
1177	4.3.3.7	Configure Smarter Balanced System Infrastructure Guide for CA	40 days	1176SS	1178SS	7/1/20	8/25/20	ETS
1178	4.3.3.8	Configure Smarter Balanced System Training Workbook for CA	40 days	1177SS	NA	7/1/20	8/25/20	ETS
1179	4.3.4	Summative Computer Based Assessments	207 days	NA	NA	9/30/20	7/15/21	ETS
1180	4.3.4.1	Summative content packages available for CAT	0 days	1101	1183	9/30/20	9/30/20	ETS
1181	4.3.4.2	Summative content packages available for PT	0 days	1101	1183	9/30/20	9/30/20	ETS
1182	4.3.4.3	Summative test packages available for CAT and PT	0 days	1101	1183	9/30/20	9/30/20	ETS
1183	4.3.4.4	Import and QC test packages	20 days	NA#	1185FS+25d	9/30/20	10/27/20	ETS
1184	4.3.4.5	Update enrollment/test administration information	20 days	1185SS-40d	1191	11/10/20	12/7/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1185	4.3.4.6	Administer summative assessments (Smarter Balanced ELA/Math, ELA/Math Alternate)	138 days	1183FS+25d	1184SS-40d, 1392SS+20d, 1192SS+5d, 1376FS-40d, 1372SS+5d, 1384SS+5d, 1190SS	1/5/21	7/15/21	ETS
1186	4.3.5	Summative Paper/Pencil Testing	204 days	NA	NA	9/30/20	7/12/21	ETS
1187	4.3.5.1	Receive paper-based tests from Smarter Balanced	1 day	1101	11, 961, 188	9/30/20	9/30/20	ETS
1188	4.3.5.2	Add covers	10 days	1187	1189	10/1/20	10/14/20	ETS
1189	4.3.5.3	Print all summative operational paper tests	30 days	1188	1191FS+10d	10/15/20	11/25/20	ETS
1190	4.3.5.4	Receive material orders	129 days	1185SS	1191SS+1d	1/5/21	7/2/21	ETS
1191	4.3.5.5	Distribute paper tests as needed	129 days	1184, 1189FS+10d, 1190SS+1d	1197SS+1d	1/6/21	7/5/21	ETS
1192	4.3.5.6	Receive paper tests	129 days	1185SS+5d	1193SS	1/12/21	7/9/21	ETS
1193	4.3.5.7	Scan paper tests	129 days	1192SS	1194SS+1d	1/12/21	7/9/21	ETS
1194	4.3.5.8	Conduct resolutions on paper tests	129 days	1193SS+1d	1372SS+5d, 1384SS+5d	1/13/21	7/12/21	ETS
1195	4.3.5.9	Special Versions	198 days	NA	NA	10/1/20	7/5/21	ETS
1196	4.3.5.9.1	Produce large print & Braille	40 days	1187	1197FS+10d	10/1/20	11/25/20	ETS
1197	4.3.5.9.2	Deliver large print and Braille as requested	128 days	1191SS+1d, 1196FS+10d	NA	1/7/21	7/5/21	ETS
1198	4.4	CAASPP Expansion Assessments	632 days	NA	NA	8/1/19	12/31/21	ETS
1199	4.4.1	CSA	392 days	NA	NA	7/2/20	12/31/21	ETS
1200	4.4.1.1	2020–21 Operational Test Development	115 days	NA	NA	7/2/20	12/9/20	ETS
1201	4.4.1.1.1	Operational Test Passage/Item Development	60 days	NA	1202FS-80d	7/30/20	10/21/20	ETS
1202	4.4.1.1.2	Operational Test Forms Development	100 days	1201FS-80d	1203SS	7/2/20	11/18/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1203	4.4.1.1.3	CSA Operational Practice and Training Test Development	95 days	1202SS	1204FS-40d	7/2/20	11/11/20	ETS
1204	4.4.1.1.4	Operational Rangefinding Meeting Planning and Execution	60 days	1203FS-40d	NA	9/17/20	12/9/20	ETS
1205	4.4.1.2	Operational Test Administration	257 days	NA	NA	1/7/21	12/31/21	ETS
1206	4.4.1.2.1	Operational Test Administration	137 days	NA	1209, 1207FS-25d	1/7/21	7/16/21	ETS
1207	4.4.1.2.2	Operational Test Final Item Analysis (FIA)	25 days	1206FS-25d	12, 081, 211	6/14/21	7/16/21	ETS
1208	4.4.1.2.3	Embedded Field Test item analysis	20 days	1207	NA	7/19/21	8/13/21	ETS
1209	4.4.1.2.4	Operational Test Data Review Meeting (with Educators)	30 days	1206	1210FS-20d	7/19/21	8/27/21	ETS
1210	4.4.1.2.5	Develop and deliver Operational Test Analysis Report	30 days	1209FS-20d	1212	8/2/21	9/10/21	ETS
1211	4.4.1.2.6	Develop and distribute Operational Test Post-Test Survey	30 days	1207	NA	7/19/21	8/27/21	ETS
1212	4.4.1.2.7	2020–21 Technical Report	80 days	1210	NA	9/13/21	12/31/21	ETS
1213	4.4.2	CAA Science	606 days	NA	NA	8/22/19	12/16/21	ETS
1214	4.4.2.1	Test Design Team meeting	1 day	NA	NA	6/3/20	6/3/20	ETS
1215	4.4.2.2	Operational Test Planning & Item Development	245 days	NA	NA	8/22/19	7/29/20	ETS
1216	4.4.2.2.1	Item Development Plan & Item and Content Specifications	60 days	NA	NA	8/22/19	11/13/19	ETS
1217	4.4.2.2.1.1	Draft IDP & Item and Content Specs	20 days	NA	1218	8/22/19	9/18/19	ETS
1218	4.4.2.2.1.2	CDE Review of IDP & Item and Content Specs	20 days	1217	1219	9/19/19	10/16/19	CDE
1219	4.4.2.2.1.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	20 days	1218	1220	10/17/19	11/13/19	ETS
1220	4.4.2.2.1.4	Complete IDP & Item and Content Specs	0 days	1219	1244	11/13/19	11/13/19	ETS
1221	4.4.2.2.2	Item Writer Workshop	78 days	NA	NA	8/29/19	12/16/19	ETS
1222	4.4.2.2.2.1	Develop and finalize item writer workshop plan	20 days	NA	NA	8/29/19	9/25/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1223	4.4.2.2.2.2	Develop and finalize item writer workshop materials	37 days	NA	NA	9/27/19	11/18/19	ETS
1224	4.4.2.2.2.3	Conduct Item Writer Workshop	2 days	NA	1232	12/13/19	12/16/19	ETS
1225	4.4.2.2.3	Operational Test Plan	60 days	NA	NA	10/22/19	1/13/20	ETS
1226	4.4.2.2.3.1	Draft Operational Test Plan	20 days	NA	1227	10/22/19	11/18/19	ETS
1227	4.4.2.2.3.2	Work with CDE to Finalize Operational Test Plan	40 days	1226	1244	11/19/19	1/13/20	ETS
1228	4.4.2.2.4	Test Specifications and Blueprints	60 days	NA	NA	10/22/19	1/13/20	ETS
1229	4.4.2.2.4.1	Draft Test Specs and Blueprints	20 days	NA	1230	10/22/19	11/18/19	ETS
1230	4.4.2.2.4.2	Work with CDE to finalize Test Specs and Blueprints	40 days	1229	1244	11/19/19	1/13/20	ETS
1231	4.4.2.2.5	Item Development	77 days	NA	NA	12/17/19	4/1/20	ETS
1232	4.4.2.2.5.1	Draft embedded PTs	50 days	1224	1233	12/17/19	2/24/20	ETS
1233	4.4.2.2.5.2	Author embedded PT questions in IBIS	10 days	1232	1234	2/25/20	3/9/20	ETS
1234	4.4.2.2.5.3	Prepare materials for Item Review meeting	10 days	1233	1235	3/10/20	3/23/20	ETS
1235	4.4.2.2.5.4	Finalize materials	2 days	1234	1236	3/24/20	3/25/20	ETS
1236	4.4.2.2.5.5	CDE receives Performance Tasks for preview	0 days	1235	1237	3/25/20	3/25/20	CDE
1237	4.4.2.2.5.6	Apply final changes to Embedded PTs pre-IRC based on feedback from CDE Previews	5 days	1236	1244	3/26/20	4/1/20	ETS
1238	4.4.2.2.6	CAA Item Review meeting	68 days	NA	NA	1/10/20	4/14/20	ETS
1239	4.4.2.2.6.1	Develop and finalize with CDE the Plan document for CAA Science Item Review	50 days	NA	1243FS-29d, 1240SS+10d, 1241SS-5d, 1242SS+15d	1/17/20	3/26/20	ETS
1240	4.4.2.2.6.2	Develop Meeting Specs (participant count, meeting date, venue confirmation, etc.)	25 days	1239SS+10d	1244	1/31/20	3/5/20	ETS
1241	4.4.2.2.6.3	Construct Invitee list for CAA Item Review	8 days	1239SS-5d	NA	1/10/20	1/21/20	ETS
1242	4.4.2.2.6.4	Develop Invitation letters for CAA Item Review	14 days	1239SS+15d	1244	2/7/20	2/26/20	ETS
1243	4.4.2.2.6.5	Work with CDE to Develop Meeting Materials	40 days	1239FS-29d	1244	2/17/20	4/10/20	ETS, CDE

DRAFT CAASPP Scope of Work B
for the 2018–19 through 2021–22 Administrations

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1244	4.4.2.2.6.6	CAA Science Item Review *(includes Operational Test/Practice Test Item Determinations)	2 days	NA#	1246, 1248, 1260, 1261FS-30d, 1262FS-30d, 1263FS+27d, 1264FS+30d	4/13/20	4/14/20	ETS
1245	4.4.2.2.7	Item Finalization (Post-committee)	76 days	NA	NA	4/15/20	7/29/20	ETS
1246	4.4.2.2.7.1	Embedded PT Scaffolding Activities	56 days	1244	1247FS-20d	4/15/20	7/1/20	ETS
1247	4.4.2.2.7.2	508 tagging	31 days	1246FS-20d	NA	6/4/20	7/16/20	ETS
1248	4.4.2.2.7.3	Update Embedded PT questions (for IBIS)	76 days	1244	1251	4/15/20	7/29/20	ETS
1249	4.4.2.3	AIR TDS Production	63 days	NA	NA	7/29/20	10/26/20	ETS
1250	4.4.2.3.1	Construct TDS items for AIR	63 days	NA	NA	7/29/20	10/26/20	ETS
1251	4.4.2.3.1.1	IBIS items Locked	0 days	1248	1252	7/29/20	7/29/20	ETS
1252	4.4.2.3.1.2	Prepare IBIS items for export	5 days	1251	1253	7/30/20	8/5/20	ETS
1253	4.4.2.3.1.3	Submit IBIS items to AIR	0 days	1252	1254	8/5/20	8/5/20	ETS
1254	4.4.2.3.1.4	AIR returns ITS IDs for items	3 days	1253	1255	8/6/20	8/10/20	ETS
1255	4.4.2.3.1.5	Provide sequence IDs and return to AIR	1 day	1254	1256	8/11/20	8/11/20	ETS
1256	4.4.2.3.1.6	Confirm sequences at AIR	1 day	1255	1257	8/12/20	8/12/20	ETS
1257	4.4.2.3.1.7	Content Lockdown	0 days	1256	1258FS+53d	8/12/20	8/12/20	ETS
1258	4.4.2.3.1.8	Embedded PTs available in TDS to LEAs	0 days	1257FS+53d, 1263, 1264	1267FS-80d	10/26/20	10/26/20	ETS
1259	4.4.2.4	Administration Support Materials	169 days	NA	NA	3/4/20	10/26/20	ETS
1260	4.4.2.4.1	Develop Practice Tests	102 days	1244	12, 671, 266	4/15/20	9/3/20	ETS
1261	4.4.2.4.2	Develop Pre-Administration Support Video	105 days	1244FS-30d	12, 671, 266	3/4/20	7/28/20	ETS
1262	4.4.2.4.3	Develop Pre-Administration Test Examiner Online Training Module	105 days	1244FS-30d	12, 671, 266	3/4/20	7/28/20	ETS
1263	4.4.2.4.4	Develop TE TDS Guide (for OTAM)	112 days	1244FS+27d	1258	5/22/20	10/26/20	ETS
1264	4.4.2.4.5	Develop TE TDS Video	96 days	1244FS+30d	1258	5/27/20	10/7/20	ETS
1265	4.4.2.5	Operational Administration	225 days	NA	NA	9/3/20	7/15/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1266	4.4.2.5.1	Non-secure standard, topic, and activity information available to LEAs	0 days	NA#	NA	9/3/20	9/3/20	ETS
1267	4.4.2.5.2	Secure test content available to LEA	0 days	1258FS-80d, 1260, 1261, 1262	1268FS+225d, 1270FS+45d, 1275FS+45d	9/3/20	9/3/20	ETS
1268	4.4.2.5.3	Operational administration ends (mid-July)	0 days	1267FS+225d	NA	7/15/21	7/15/21	ETS
1269	4.4.2.6	Results	290 days	NA	NA	11/6/20	12/16/21	ETS
1270	4.4.2.6.1	Develop and Release Test Examiner Survey	47 days	1267FS+45d	1272	11/6/20	1/11/21	ETS
1271	4.4.2.6.2	Pilot Observations	154 days	NA	NA	11/6/20	6/9/21	ETS
1272	4.4.2.6.2.1	Contact and determine schools for observation	10 days	1270	1273	1/12/21	1/25/21	ETS
1273	4.4.2.6.2.2	Identify observer pool	2 days	1272	1274	1/26/21	1/27/21	ETS
1274	4.4.2.6.2.3	Secure training logistics	10 days	1273	1276	1/28/21	2/10/21	ETS
1275	4.4.2.6.2.4	Develop Training Protocols	56 days	1267FS+45d	1276	11/6/20	1/22/21	ETS
1276	4.4.2.6.2.5	Observer Training	3 days	12, 741, 275	1277	2/11/21	2/15/21	ETS
1277	4.4.2.6.2.6	Conduct Pilot Observations	20 days	1276	1279	2/16/21	3/15/21	ETS
1278	4.4.2.6.2.7	Observation Results	35 days	NA	NA	3/16/21	5/3/21	ETS
1279	4.4.2.6.2.7.1	Analysis of Results	10 days	1277	1280, 1284FS+50d	3/16/21	3/29/21	ETS
1280	4.4.2.6.2.7.2	Draft memo of Observation Results	20 days	1279	1281	3/30/21	4/26/21	ETS
1281	4.4.2.6.2.7.3	Finalize memo of Observation Results	5 days	1280	1282	4/27/21	5/3/21	ETS
1282	4.4.2.6.2.7.4	Submit memo of Observation Results to CDE	0 days	1281	NA	5/3/21	5/3/21	ETS
1283	4.4.2.6.2.8	Operational Data Review	2 days	NA	NA	6/8/21	6/9/21	ETS
1284	4.4.2.6.2.8.1	Conduct Operational Data Review Meeting	2 days	1279FS+50d	NA	6/8/21	6/9/21	ETS
1285	4.4.2.6.3	Technical Report	127 days	NA	NA	6/23/21	12/16/21	ETS
1286	4.4.2.6.3.1	Draft Technical Report using P2 data and CDE feedback on table of contents	100 days	NA	1287	6/23/21	11/9/21	ETS
1287	4.4.2.6.3.2	Editorial Review of the Technical Report	5 days	1286	1288	11/10/21	11/16/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1288	4.4.2.6.3.3	Submit Technical Report to CDE	0 days	1287	1289	11/16/21	11/16/21	ETS
1289	4.4.2.6.3.4	CDE Review of Technical Report	20 days	1288	1290	11/17/21	12/14/21	CDE
1290	4.4.2.6.3.5	Apply final changes to Technical Report based on CDE feedback	2 days	1289	1291	12/15/21	12/16/21	ETS
1291	4.4.2.6.3.6	CAA for Science Technical Report completed	0 days	1290	NA	12/16/21	12/16/21	ETS
1292	4.4.3	CAA ELA/Math	484 days	NA	NA	8/12/19	6/17/21	ETS
1293	4.4.3.1	Begin Test Development	0 days	NA	1295	8/12/19	8/12/19	ETS
1294	4.4.3.2	Item Development Plan	35 days	NA	NA	8/12/19	9/27/19	ETS
1295	4.4.3.2.1	Update annual Item Development Plan	20 days	1293	1296	8/12/19	9/6/19	ETS
1296	4.4.3.2.2	CDE reviews and approves Item Development Plan	15 days	1295	NA	9/9/19	9/27/19	CDE
1297	4.4.3.3	Item Writing Workshop	46 days	NA	NA	10/1/19	12/3/19	ETS
1298	4.4.3.3.1	Update Item Writing Workshop Plan	20 days	NA	1299	10/1/19	10/28/19	ETS
1299	4.4.3.3.2	CDE reviews and approves Item Writing Workshop Plan	15 days	1298	1300	10/29/19	11/18/19	CDE
1300	4.4.3.3.3	Prepare for Item Writing Workshop	10 days	1299	1301	11/19/19	12/2/19	ETS
1301	4.4.3.3.4	Conduct Item Writing Workshop	1 day	1300	1303	12/3/19	12/3/19	ETS
1302	4.4.3.4	New Embedded Field Test Item Development	146 days	NA	NA	12/4/19	6/24/20	ETS
1303	4.4.3.4.1	Develop and review Alternate Assessment ELA/Math Assessment items	112 days	1301	1304	12/4/19	5/7/20	ETS
1304	4.4.3.4.2	CDE reviews new Alternate Assessment ELA/Math items	10 days	1303	1305	5/8/20	5/21/20	CDE
1305	4.4.3.4.3	External committee item review meetings	4 days	1304	1306	5/22/20	5/27/20	ETS
1306	4.4.3.4.4	ETS reviews and approves new items	20 days	1305	1308	5/28/20	6/24/20	ETS
1307	4.4.3.5	Forms Development	86 days	NA	NA	6/25/20	10/22/20	ETS
1308	4.4.3.5.1	Develop CAA ELA/Math test forms and DFAs	35 days	1306	13, 101, 309	6/25/20	8/12/20	ETS
1309	4.4.3.5.2	CDE reviews CAA ELA/Math test forms and DFAs	10 days	1308	NA	8/13/20	8/26/20	CDE
1310	4.4.3.5.3	Develop adaptive routing score thresholds	20 days	1308	1311	8/13/20	9/9/20	ETS
1311	4.4.3.5.4	Deliver routing thresholds to AIR for configuration	1 day	1310	13, 121, 314	9/10/20	9/10/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1312	4.4.3.5.5	AIR TDS configuration	30 days	1311	NA	9/11/20	10/22/20	ETS
1313	4.4.3.6	Training Test and DFA Content Refresh	36 days	NA	NA	9/11/20	10/30/20	ETS
1314	4.4.3.6.1	Propose training test edits/replacements to CDE	1 day	1311	1315	9/11/20	9/11/20	ETS
1315	4.4.3.6.2	Edit and update training tests and DFAs	15 days	1314	1316	9/14/20	10/2/20	ETS
1316	4.4.3.6.3	CDE reviews training test and DFAs	10 days	1315	1317	10/5/20	10/16/20	CDE
1317	4.4.3.6.4	TDS configuration for updated training tests and DFAs	10 days	1316	NA	10/19/20	10/30/20	ETS
1318	4.4.3.7	Data Review	2 days	NA	NA	6/16/21	6/17/21	ETS
1319	4.4.3.7.1	Conduct Data Review Meeting	2 days	NA	NA	6/16/21	6/17/21	ETS
1320	4.4.4	CAST	631 days	NA	NA	8/1/19	12/30/21	ETS
1321	4.4.4.1	Item Development	272 days	NA	NA	8/1/19	8/14/20	ETS
1322	4.4.4.1.1	Item and content specifications	10 days	NA	NA	8/3/20	8/14/20	ETS
1323	4.4.4.1.1.1	Review and update the item specifications	10 days	NA	NA	8/3/20	8/14/20	ETS
1324	4.4.4.1.2	Item Development Plan	58 days	NA	NA	8/1/19	10/21/19	ETS
1325	4.4.4.1.2.1	Draft IDP & Item and Content Specs	20 days	NA	1326	8/1/19	8/28/19	ETS
1326	4.4.4.1.2.2	CDE Review of IDP & Item and Content Specs	20 days	1325	1327	8/29/19	9/25/19	ETS
1327	4.4.4.1.2.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	18 days	1326	1328	9/26/19	10/21/19	ETS
1328	4.4.4.1.2.4	Complete IDP & Item and Content Specs	0 days	1327	NA	10/21/19	10/21/19	ETS
1329	4.4.4.1.3	Item Writer Training	48 days	NA	NA	8/15/19	10/21/19	ETS
1330	4.4.4.1.3.1	Update Item Writer training materials	15 days	NA	1331SS+5d, 1333	8/15/19	9/4/19	ETS
1331	4.4.4.1.3.2	Identify stakeholders and draft email invitation for Item Writer training	10 days	1330SS+5d	1332	8/22/19	9/4/19	ETS
1332	4.4.4.1.3.3	CDE reviews and approves stakeholders and email invitation to apply for Item Writer training	10 days	1331	1334	9/5/19	9/18/19	CDE
1333	4.4.4.1.3.4	CDE reviews and approves Item Writer training materials	10 days	1330	1335	9/5/19	9/18/19	CDE
1334	4.4.4.1.3.5	ETS recruits item writer training participants	15 days	1332	1335FS+5d	9/19/19	10/9/19	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1335	4.4.4.1.3.6	ETS conducts Item Writer training	3 days	1333, 1334FS+5d	1337FS-35d	10/17/19	10/21/19	ETS
1336	4.4.4.1.4	Operational Test Items	140 days	NA	NA	9/3/19	3/16/20	ETS
1337	4.4.4.1.4.1	Develop items and flow to CDE for review	105 days	1335FS-35d	1338SS+20d	9/3/19	1/27/20	ETS
1338	4.4.4.1.4.2	Review items as received (review for information only)	95 days	1337SS+20d	1339FS+2w	10/1/19	2/10/20	CDE
1339	4.4.4.1.4.3	Item content and bias committee review	5 days	1338FS+2w	1340	2/25/20	3/2/20	ETS, CDE
1340	4.4.4.1.4.4	Perform post-committee review reconciliation	10 days	1339	1342	3/3/20	3/16/20	ETS, CDE
1341	4.4.4.2	Test Construction	100 days	NA	NA	3/17/20	8/3/20	ETS
1342	4.4.4.2.1	Create item blocks for operational forms, practice test forms, and training test	5 days	1340	1348	3/17/20	3/23/20	ETS
1343	4.4.4.2.2	Finalize test forms for Practice Test and Training Test; perform summative reviews; release content to AIR	20 days	1349	13, 441, 345	5/26/20	6/22/20	ETS
1344	4.4.4.2.3	AIR content lockdown for Practice Test and Training Test	0 days	1343	1351	6/22/20	6/22/20	ETS
1345	4.4.4.2.4	Finalize test forms for Summative Operational Test; perform summative reviews; release content to AIR	30 days	1343	1346	6/23/20	8/3/20	ETS
1346	4.4.4.2.5	AIR content lockdown for Practice Test and Training Test	0 days	1345	1352	8/3/20	8/3/20	ETS
1347	4.4.4.3	Accessibility Content	45 days	NA	NA	3/24/20	5/25/20	ETS
1348	4.4.4.3.1	Create and source accessibility content (Braille, ASL videos, translations, glossaries, etc)	45 days	1342	1349SS+35d	3/24/20	5/25/20	ETS
1349	4.4.4.3.2	Review and approve accessibility content	10 days	1348SS+35d	1343	5/12/20	5/25/20	CDE
1350	4.4.4.4	Integrate Test and Test Delivery System	58 days	NA	NA	6/23/20	9/10/20	ETS
1351	4.4.4.4.1	Integrate Practice and Training Test forms with Test Delivery System; release for internal UAT	17 days	1344	1116	6/23/20	7/15/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1352	4.4.4.4.2	Integrate Summative Operational test forms with Test Delivery System; release for internal UAT	28 days	1346	1138	8/4/20	9/10/20	ETS
1353	4.4.4.5	Training and Practice Tests available to schools	0 days	1125	NA	9/1/20	9/1/20	ETS
1354	4.4.4.6	Summative Operational Test Administration	137 days	1147FS-1d	1356SS+60d	1/6/21	7/15/21	ETS
1355	4.4.4.7	Human CR scoring	86 days	NA	NA	3/31/21	7/28/21	ETS
1356	4.4.4.7.1	Prepare Rangefinding materials and provide to CDE	10 days	1354SS+60d	1357	3/31/21	4/13/21	ETS
1357	4.4.4.7.2	Review and approve Rangefinding materials	10 days	1356	1358FS+5d	4/14/21	4/27/21	CDE
1358	4.4.4.7.3	Conduct Rangefinding meeting	1 day	1357FS+5d	1359	5/5/21	5/5/21	ETS
1359	4.4.4.7.4	Configure scoring system with CAST materials	10 days	1358	1360	5/6/21	5/19/21	ETS
1360	4.4.4.7.5	Human scoring of CR's	50 days	1359	1362SS+7d	5/20/21	7/28/21	ETS
1361	4.4.4.8	Post-admin statistical analysis	8 days	NA	NA	5/31/21	6/9/21	ETS
1362	4.4.4.8.1	Item and DIF analyses	8 days	1360SS+7d	1364	5/31/21	6/9/21	ETS
1363	4.4.4.9	Technical Report	146 days	NA	NA	6/10/21	12/30/21	ETS
1364	4.4.4.9.1	Create technical report and submit to CDE for review	116 days	1362	1365	6/10/21	11/18/21	ETS
1365	4.4.4.9.2	Review and approve technical report	20 days	1364	1366	11/19/21	12/16/21	CDE
1366	4.4.4.9.3	Finalize and post technical report	10 days	1365	NA	12/17/21	12/30/21	ETS
1367	4.5	ELPAC Administration	261 days	NA	NA	7/1/20	6/30/21	ETS
1368	4.5.1	IA CBA Operational Administration	261 days	NA	NA	7/1/20	6/30/21	ETS
1369	4.5.2	SA CBA Operational Administration	86 days	NA	NA	2/1/21	5/31/21	ETS
1370	4.6	Scoring	462 days	NA	NA	10/7/19	7/13/21	ETS
1371	4.6.1	Summative Computer Based Assessments	121 days	NA	NA	1/20/21	7/7/21	ETS
1372	4.6.1.1	Hand and AI scoring occurs	121 days	1185SS+5d, 1194SS+5d	1373SS, 1374SS	1/20/21	7/7/21	ETS
1373	4.6.1.2	Perform scoring QC	121 days	1372SS	NA	1/20/21	7/7/21	ETS
1374	4.6.1.3	Final scoring occurs	121 days	1372SS	1418SS	1/20/21	7/7/21	ETS
1375	4.6.2	Psychometric Analysis	38 days	NA	NA	5/21/21	7/13/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1376	4.6.2.1	Conduct Item Analysis of CAASPP Summative assessments	16 days	1185FS-40d	1377	5/21/21	6/11/21	ETS
1377	4.6.2.2	Item Analysis Files delivered to CDE	1 day	1376	1378FS+20d, 1425	6/14/21	6/14/21	ETS
1378	4.6.2.3	Facilitate Alternate Assessment Data Review meeting	1 day	1377FS+20d	NA	7/13/21	7/13/21	ETS
1379	4.6.3	Appeals	200 days	NA	NA	10/7/19	7/10/20	ETS
1380	4.6.3.1	Monitor appeals	200 days	NA	NA	10/7/19	7/10/20	ETS
1381	4.7	Reporting	273 days	NA	NA	12/9/20	12/24/21	ETS
1382	4.7.1	Summative Assessment	212 days	NA	NA	12/9/20	9/30/21	ETS
1383	4.7.1.1	Delivery of Data Files to CDE	182 days	NA	NA	1/20/21	9/30/21	ETS
1384	4.7.1.1.1	Prepare student data files	90 days	1185SS+5d, 1194SS+5d	NA	1/20/21	5/25/21	ETS
1385	4.7.1.1.2	Post initial student data files (P1) to SFTP site for CDE	1 day	NA	NA	6/30/21	6/30/21	ETS
1386	4.7.1.1.3	Post final data files (P2) to SFTP site for CDE	1 day	NA	1425, 1387FS+21d	8/31/21	8/31/21	ETS
1387	4.7.1.1.4	ETS delivers a student-level data file of test settings assigned and used by the student	1 day	1386FS+21d	NA	9/30/21	9/30/21	ETS
1388	4.7.1.2	Online Reporting Systems	116 days	NA	NA	1/7/21	6/17/21	ETS
1389	4.7.1.2.1	Online Reporting Systems Setup	1 day	NA	NA	1/7/21	1/7/21	ETS
1390	4.7.1.2.1.1	Deploy online reporting system	1 day	NA	1393	1/7/21	1/7/21	ETS
1391	4.7.1.2.2	Student Level Reporting	107 days	NA	NA	1/8/21	6/7/21	ETS
1392	4.7.1.2.2.1	Provide final individual scores within 4 weeks of student online test completion	90 days	1185SS+20d	NA	2/2/21	6/7/21	ETS
1393	4.7.1.2.2.2	Launch ISR availability within online reporting system	1 day	1390	1395FS+50d	1/8/21	1/8/21	ETS
1394	4.7.1.2.3	School Level Reporting	1 day	NA	NA	3/22/21	3/22/21	ETS
1395	4.7.1.2.3.1	Launch school level reporting functionality	1 day	1393FS+50d	1397FS+10d	3/22/21	3/22/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1396	4.7.1.2.4	LEA Level Reporting	1 day	NA	NA	4/6/21	4/6/21	ETS
1397	4.7.1.2.4.1	Launch LEA level reporting functionality	1 day	1395FS+10d	NA	4/6/21	4/6/21	ETS
1398	4.7.1.2.5	State Level Reporting	107 days	NA	NA	1/20/21	6/17/21	ETS
1399	4.7.1.2.5.1	State Aggregate Reporting Website	107 days	NA	NA	1/20/21	6/17/21	ETS
1400	4.7.1.2.5.1.1	Develop business requirements	40 days	1101FS+80d	1401	1/20/21	3/16/21	ETS
1401	4.7.1.2.5.1.2	CDE provides text for site	1 day	1400	1402	3/17/21	3/17/21	CDE
1402	4.7.1.2.5.1.3	Construct web reporting site	30 days	1401	1403	3/18/21	4/28/21	ETS
1403	4.7.1.2.5.1.4	CDE UAT of Web Reporting Site	10 days	1402	1404	4/29/21	5/12/21	CDE
1404	4.7.1.2.5.1.5	CDE provides feedback on changes needed	10 days	1403	1405	5/13/21	5/26/21	CDE
1405	4.7.1.2.5.1.6	Apply changes	5 days	1404	1406	5/27/21	6/2/21	ETS
1406	4.7.1.2.5.1.7	CDE second UAT	5 days	1405	1407	6/3/21	6/9/21	CDE
1407	4.7.1.2.5.1.8	Finalize site with CDE updates	5 days	1406	1408	6/10/21	6/16/21	ETS
1408	4.7.1.2.5.1.9	Deploy State level reporting website	1 day	1407	NA	6/17/21	6/17/21	ETS
1409	4.7.1.3	Individual Student Report	162 days	NA	NA	12/9/20	7/22/21	ETS
1410	4.7.1.3.1	Develop individual student report	40 days	1101FS+50d	1411	12/9/20	2/2/21	ETS
1411	4.7.1.3.2	CDE reviews individual student report	10 days	1410	1412	2/3/21	2/16/21	CDE
1412	4.7.1.3.3	Update individual student report	3 days	1411	1413	2/17/21	2/19/21	ETS
1413	4.7.1.3.4	CDE 2nd review of individual student report	5 days	1412	1414	2/22/21	2/26/21	CDE
1414	4.7.1.3.5	Apply updates & submit to CDE for approval	3 days	1413	1415	3/1/21	3/3/21	ETS
1415	4.7.1.3.6	Conduct SSR Pilot Review meeting	1 day	1414	1416	3/4/21	3/4/21	ETS
1416	4.7.1.3.7	Post Student Score Reports (SSR) for LEAs	100 days	1415	NA	3/5/21	7/22/21	ETS
1417	4.7.1.4	Rescore Process	155 days	NA	NA	1/20/21	8/24/21	ETS
1418	4.7.1.4.1	LEAs request rescores	140 days	1374SS	1419SS+30d	1/20/21	8/3/21	ETS
1419	4.7.1.4.2	Provide rescore results	120 days	1418SS+30d	1420SS+5d	3/3/21	8/17/21	ETS
1420	4.7.1.4.3	Invoicing for rescores occurs	120 days	1419SS+5d	NA	3/10/21	8/24/21	ETS
1421	4.7.2	Understanding SSRs Guides	31 days	NA	NA	4/28/21	6/9/21	ETS
1422	4.7.2.1	Produce Understanding SSRs guides in 5 languages	30 days	1101FS+150d	1423	4/28/21	6/8/21	ETS
1423	4.7.2.2	Post Understanding SSRs guides in 5 languages	1 day	1422	NA	6/9/21	6/9/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1424	4.7.3	Technical Report	83 days	NA	NA	9/1/21	12/24/21	ETS
1425	4.7.3.1	Develop Technical Manual	40 days	13, 771, 386	1426	9/1/21	10/26/21	ETS
1426	4.7.3.2	CDE reviews Technical Report and returns edits to ETS	20 days	1425	1427	10/27/21	11/23/21	CDE
1427	4.7.3.3	ETS applies edits and delivers final Technical Report to CDE	10 days	1426	1428	11/24/21	12/7/21	ETS
1428	4.7.3.4	CDE 2nd review of Technical Report	10 days	1427	1429	12/8/21	12/21/21	CDE
1429	4.7.3.5	Apply updates and deliver Technical Manual to CDE for approval	3 days	1428	NA	12/22/21	12/24/21	ETS
1430	5	2021–22 Administration Year	653 days	NA	NA	7/1/20	12/30/22	ETS
1431	5.1	Project Administration	653 days	NA	NA	7/1/20	12/30/22	ETS
1432	5.1.1	Project Management	392 days	NA	NA	7/1/21	12/30/22	ETS
1433	5.1.1.1	Project Management Begins	0 days	NA	1452, 1439FS+53d, 1437, 1447, 1449, 1450, 1454, 1456FS-20d, 1462, 1463, 1465, 1469, 1470, 1477, 1480FS+124d, 1540, 1464	7/1/21	7/1/21	ETS
1434	5.1.1.2	Project Management Plan (PMP) & subplans	261 days	NA	NA	7/1/21	6/30/22	ETS
1435	5.1.1.2.1	Update project management plan and subplans as appropriate for process improvements	261 days	7	NA	7/1/21	6/30/22	ETS
1436	5.1.1.3	Risk & Issue Tracking	392 days	NA	NA	7/1/21	12/30/22	ETS
1437	5.1.1.3.1	Conduct Monthly Risk Review Meeting with CDE (Twice Monthly)	392 days	1433	NA	7/1/21	12/30/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1438	5.1.1.4	Schedule Management	339 days	NA	NA	9/14/21	12/30/22	ETS
1439	5.1.1.4.1	Complete annual update to Work Breakdown Structure	10 days	1433FS+53d	1441	9/14/21	9/27/21	ETS
1440	5.1.1.4.2	2021–22 Schedule of Deliverables (SoD)	329 days	NA	NA	9/28/21	12/30/22	ETS
1441	5.1.1.4.2.1	Prepare 2021–22 SoD	100 days	1439	1442	9/28/21	2/14/22	ETS
1442	5.1.1.4.2.2	Review and provide feedback on 2021–22 SoD Cycle 1	20 days	1441	1443	2/15/22	3/14/22	CDE
1443	5.1.1.4.2.3	Review and approve 2021–22 SoD and Deliverables crosswalk	20 days	1442	1444	3/15/22	4/11/22	CDE
1444	5.1.1.4.2.4	Lock baseline dates in 2021–22 SoD	1 day	1443	1445	4/12/22	4/12/22	ETS
1445	5.1.1.4.2.5	Conduct project schedule execution and SoD Variance Summary reporting	188 days	1444	NA	4/13/22	12/30/22	ETS
1446	5.1.1.5	Change Management	392 days	NA	NA	7/1/21	12/30/22	ETS
1447	5.1.1.5.1	Conduct Monthly Change Control Meeting with CDE (Twice Monthly)	392 days	1433	NA	7/1/21	12/30/22	ETS
1448	5.1.1.6	Status Reporting	392 days	NA	NA	7/1/21	12/30/22	ETS
1449	5.1.1.6.1	Submit Monthly Invoice and Accomplishments Report to CDE	392 days	1433	NA	7/1/21	12/30/22	ETS
1450	5.1.1.6.2	Submit Weekly Status Report to CDE	392 days	1433	NA	7/1/21	12/30/22	ETS
1451	5.1.1.7	Monthly Progress Reports	392 days	NA	NA	7/1/21	12/30/22	ETS
1452	5.1.1.7.1	Deliver monthly progress reports to CDE	392 days	1433	NA	7/1/21	12/30/22	ETS
1453	5.1.1.8	Continuous Improvement Plan	261 days	NA	NA	7/1/21	6/30/22	ETS
1454	5.1.1.8.1	ETS works with the CDE to enhance a continuous improvement plan	261 days	1433	NA	7/1/21	6/30/22	ETS, CDE
1455	5.1.2	Program Meetings	653 days	NA	NA	7/1/20	12/30/22	ETS
1456	5.1.2.1	Conduct internal ETS planning meeting	2 days	1433FS-20d	1457FS+31d	6/3/21	6/4/21	ETS
1457	5.1.2.2	Conduct annual planning meeting	2 days	1456FS+31d	1458, 1459, 1460FS+15d, 1477SS	7/20/21	7/21/21	ETS, CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1458	5.1.2.3	Conduct Reporting Specifications Intake meeting	1 day	1457	1461	7/22/21	7/22/21	ETS
1459	5.1.2.4	Prepare meeting minutes/participant list and deliver to CDE	5 days	1457	NA	7/22/21	7/28/21	ETS
1460	5.1.2.5	Submit final Program Improvements Plan	1 day	1457FS+15d	NA	8/12/21	8/12/21	ETS
1461	5.1.2.6	Conduct manuals and context-sensitive help intake meeting	2 days	1458	NA	7/23/21	7/26/21	ETS
1462	5.1.2.7	Conduct weekly internal status meetings	392 days	1433	NA	7/1/21	12/30/22	ETS
1463	5.1.2.8	Conduct weekly CDE management meetings	392 days	1433	NA	7/1/21	12/30/22	ETS
1464	5.1.2.9	Conduct bi-weekly coordination with the CDE Outreach and Technical Contractor	392 days	1433	NA	7/1/21	12/30/22	ETS
1465	5.1.2.10	Conduct additional meetings as needed	392 days	1433	NA	7/1/21	12/30/22	ETS
1466	5.1.2.11	State Board Meetings	392 days	NA	NA	7/1/20	12/30/21	ETS
1467	5.1.2.11.1	Attend State Board meetings	392 days	38	NA	7/1/20	12/30/21	ETS, CDE
1468	5.1.2.12	Technical Advisory Group (TAG) Meetings	392 days	NA	NA	7/1/21	12/30/22	ETS
1469	5.1.2.12.1	Work with the CDE to develop TAG agendas	392 days	1433	NA	7/1/21	12/30/22	ETS, CDE
1470	5.1.2.12.2	Attend TAG meetings	392 days	1433	NA	7/1/21	12/30/22	ETS, CDE
1471	5.1.2.13	Network Coordination Meetings	198 days	NA	NA	3/31/21	12/31/21	ETS
1472	5.1.2.13.1	Q1 Network Coordination Meeting	1 day	NA	1473	3/31/21	3/31/21	ETS
1473	5.1.2.13.2	Q2 Network Coordination Meeting	1 day	1472	1474	6/30/21	6/30/21	ETS
1474	5.1.2.13.3	Q3 Network Coordination Meeting	1 day	1473	1475	9/30/21	9/30/21	ETS
1475	5.1.2.13.4	Q4 Network Coordination Meeting	1 day	1474	NA	12/31/21	12/31/21	ETS
1476	5.1.3	Test Security	338 days	NA	NA	7/1/21	10/17/22	ETS
1477	5.1.3.1	Update and deliver the Test Security Plan for the 2020 administration	30 days	1433, 1457SS	NA	7/20/21	8/30/21	ETS
1478	5.1.3.2	Communication from ETS to LEAS requesting yet to be submitted designations forms and security agreements	77 days	NA	NA	8/17/21	12/1/21	ETS
1479	5.1.3.3	Monitor social media sites for test security breaches	261 days	NA	NA	7/1/21	6/30/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1480	5.1.3.4	Perform on-site security audit visits	214 days	1433FS+124 d	1481SS	12/22/21	10/17/22	ETS
1481	5.1.3.5	Investigate test security breaches as needed	214 days	1480SS	1482SS+5d	12/22/21	10/17/22	ETS
1482	5.1.3.6	Deliver audit reports to CDE	209 days	1481SS+5d	NA	12/29/21	10/17/22	ETS
1483	5.2	Program Support	457 days	NA	NA	10/1/20	7/1/22	ETS
1484	5.2.1	LEA Management and Communications	152 days	NA	NA	5/3/21	11/30/21	ETS
1485	5.2.1.1	Communication from ETS to LEAS requesting school hierarchy information	1 day	NA	NA	5/3/21	5/3/21	ETS
1486	5.2.1.2	Collect LEA CAASPP coordinator designation forms and security agreements	50 days	NA	1487FS-30d	9/2/21	11/10/21	ETS
1487	5.2.1.3	Input updates into the LEA CAASPP coordinator database	43 days	1486FS-30d	1488	9/30/21	11/29/21	ETS
1488	5.2.1.4	Provide CDE access to the CAASPP coordinator database	1 day	1487	NA	11/30/21	11/30/21	ETS
1489	5.2.2	Digital Library	261 days	NA	NA	7/1/21	6/30/22	ETS
1490	5.2.2.1	Provide access to and customer support for Digital Library	261 days	NA	NA	7/1/21	6/30/22	ETS
1491	5.2.2.2	Marketing Efforts	261 days	NA	NA	7/1/21	6/30/22	ETS
1492	5.2.3	LEA Training	254 days	NA	NA	7/1/21	6/21/22	ETS
1493	5.2.3.1	CAASPP Workshops, Webcasts, and Online Videos	251 days	NA	NA	7/6/21	6/21/22	ETS
1494	5.2.3.1.1	In-Person Workshops	251 days	NA	NA	7/6/21	6/21/22	ETS
1495	5.2.3.1.1.1	July-August 2021 (Summer Scoring Institutes)	35 days	NA	NA	7/6/21	8/23/21	ETS
1496	5.2.3.1.1.1.1	Summer Scoring Workshop (North, Central and South)	35 days	NA	NA	7/6/21	8/23/21	ETS
1497	5.2.3.1.1.2	September - October 2021 (Interim Hand Scoring Workshops)	35 days	NA	NA	9/6/21	10/22/21	ETS
1498	5.2.3.1.1.2.1	Interim Assessment Hand Scoring Workshop (North, Central and South)	35 days	NA	NA	9/6/21	10/22/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1499	5.2.3.1.1.2.2	Digital Library & Interim Assessment Clinics (North, Central and South)	35 days	NA	NA	9/6/21	10/22/21	ETS
1500	5.2.3.1.1.3	January - February 2022 (Pretest Workshops)	30 days	NA	NA	1/7/22	2/17/22	ETS
1501	5.2.3.1.1.3.1	Present Pretest Workshops throughout the state	30 days	NA	NA	1/7/22	2/17/22	ETS
1502	5.2.3.1.1.4	May - June 2022 (Post-Test Workshops)	25 days	NA	NA	5/18/22	6/21/22	ETS
1503	5.2.3.1.1.4.1	Present Post-Test Workshops throughout the state	25 days	NA	NA	5/18/22	6/21/22	ETS
1504	5.2.3.1.2	Webcast Only	1 day	NA	NA	5/13/22	5/13/22	ETS
1505	5.2.3.1.2.1	Pretest Workshop - 2 hours (2021 - 2022)	1 day	NA	NA	5/13/22	5/13/22	ETS
1506	5.2.3.1.3	Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/6/21	11/26/21	ETS
1507	5.2.3.1.3.1	Present Short Smarter Balanced and ELPAC Training Webcasts and Videos	60 days	NA	NA	9/6/21	11/26/21	ETS
1508	5.2.3.2	Manuals	220 days	NA	NA	7/1/21	5/4/22	ETS
1509	5.2.3.2.1	2021–22 Manuals	220 days	NA	NA	7/1/21	5/4/22	ETS
1510	5.2.3.2.1.1	2021–22 Manuals begin	0 days	NA	1513FS-1d, 1515FS-1d, 1517FS-1d, 1519FS-1d, 1521FS+1d, 1524FS+69d, 1526FS+69d, 1529FS+155d, 1531FS+155d, 1533FS+155d	7/2/21	7/2/21	ETS
1511	5.2.3.2.1.2	Manuals needed for Phase 1	78 days	NA	NA	7/1/21	10/18/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1512	5.2.3.2.1.2.1	TOMS Pre-Administration Guide for CAASPP Testing	45 days	NA	NA	7/1/21	9/1/21	ETS
1513	5.2.3.2.1.2.1.1	Revise TOMS Pre-Administration Guide for CAASPP Testing	45 days	1510FS-1d	NA	7/1/21	9/1/21	ETS
1514	5.2.3.2.1.2.2	Technical Specifications and Configuration Guide for CAASPP Testing	45 days	NA	NA	7/1/21	9/1/21	ETS
1515	5.2.3.2.1.2.2.1	Revise Technical Specifications and Configuration Guide for CAASPP Testing	45 days	1510FS-1d	NA	7/1/21	9/1/21	ETS
1516	5.2.3.2.1.2.3	Interim Assessment User's Guide	45 days	NA	NA	7/1/21	9/1/21	ETS
1517	5.2.3.2.1.2.3.1	Revise IA User Guide refresh	45 days	1510FS-1d	NA	7/1/21	9/1/21	ETS
1518	5.2.3.2.1.2.4	Guide to CAASPP Completion Status and Roster Management	45 days	NA	NA	7/1/21	9/1/21	ETS
1519	5.2.3.2.1.2.4.1	Revise Guide to CAASPP Completion Status and Roster Management	45 days	1510FS-1d	NA	7/1/21	9/1/21	ETS
1520	5.2.3.2.1.2.5	Accessibility Guide for CAASPP Testing	76 days	NA	NA	7/5/21	10/18/21	ETS
1521	5.2.3.2.1.2.5.1	Revise Accessibility Guide for CAASPP Testing	76 days	1510FS+1d	NA	7/5/21	10/18/21	ETS
1522	5.2.3.2.1.3	Manuals needed for Phase 2	65 days	NA	NA	10/7/21	1/5/22	ETS
1523	5.2.3.2.1.3.1	Online Test Administration Manual for CAASPP Testing	65 days	NA	NA	10/7/21	1/5/22	ETS
1524	5.2.3.2.1.3.1.1	Revise Online TAM	65 days	1510FS+69d	NA	10/7/21	1/5/22	ETS
1525	5.2.3.2.1.3.2	Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	NA	NA	10/7/21	1/5/22	ETS
1526	5.2.3.2.1.3.2.1	Revise Smarter Balanced PPT Test Administration Manual (TAM) ELA/Math & Spanish Math)	65 days	1510FS+69d	NA	10/7/21	1/5/22	ETS
1527	5.2.3.2.1.4	Manuals needed for Phase 3	64 days	NA	NA	2/4/22	5/4/22	ETS
1528	5.2.3.2.1.4.1	Online Reporting System User Guide for California	64 days	NA	NA	2/4/22	5/4/22	ETS
1529	5.2.3.2.1.4.1.1	Revise Online Reporting System User Guide for California	64 days	1510FS+155d, 1526	NA	2/4/22	5/4/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1530	5.2.3.2.1.4.2	CAASPP Security Incidents and Appeals Procedure Guide	64 days	NA	NA	2/4/22	5/4/22	ETS
1531	5.2.3.2.1.4.2.1	Revise Security and Test Administration Procedure Guide	64 days	1510FS+155d, 1526	NA	2/4/22	5/4/22	ETS
1532	5.2.3.2.1.4.3	CAASPP Post-Test Guide	64 days	NA	NA	2/4/22	5/4/22	ETS
1533	5.2.3.2.1.4.3.1	Revise CAASPP Post-Test Guide	64 days	1510FS+155d, 1526	NA	2/4/22	5/4/22	ETS
1534	5.2.4	CalTAC Support	262 days	NA	NA	7/1/21	7/1/22	ETS
1535	5.2.4.1	Train CalTAC staff on the CAASPP program	10 days	NA	1536SS	7/1/21	7/14/21	ETS
1536	5.2.4.2	Establish help desk technical phone, web chat and email support	10 days	1535SS	1537	7/1/21	7/14/21	ETS
1537	5.2.4.3	Perform technology support site visits as needed	252 days	1536	NA	7/15/21	7/1/22	ETS
1538	5.2.5	Data Driven Improvement	390 days	NA	NA	10/1/20	3/30/22	ETS
1539	5.2.5.1	Post-Test Focus Groups for Administrators	82 days	NA	NA	7/1/21	10/22/21	ETS
1540	5.2.5.1.1	Prepare materials for Post-Test Focus Groups	25 days	1433	1541	7/1/21	8/4/21	ETS
1541	5.2.5.1.2	Review and approve materials for post-test focus groups	10 days	1540	1542	8/5/21	8/18/21	CDE
1542	5.2.5.1.3	Conduct Sacramento focus group	2 days	1541	1543FS+3d	8/19/21	8/20/21	ETS
1543	5.2.5.1.4	Conduct Southern CA focus group	2 days	1542FS+3d	1544	8/26/21	8/27/21	ETS
1544	5.2.5.1.5	Compile results and recommended program improvements to CDE	40 days	1543	NA	8/30/21	10/22/21	ETS
1545	5.2.5.2	Test Coordinator Advisory Group	162 days	NA	NA	8/17/21	3/30/22	ETS
1546	5.2.5.2.1	Prepare materials for Test Coordinator Advisory Group 1	20 days	NA	1547	8/17/21	9/13/21	ETS
1547	5.2.5.2.2	Conduct September Advisory Group 1	1 day	1546	1548, 1549FS+80d	9/14/21	9/14/21	ETS
1548	5.2.5.2.3	Compile results and recommended program improvements to CDE	40 days	1547	NA	9/15/21	11/9/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1549	5.2.5.2.4	Prepare materials for Test Coordinator Advisory Group 2	20 days	1547FS+80d	1550	1/5/22	2/1/22	ETS
1550	5.2.5.2.5	Conduct February Advisory Group 2	1 day	1549	1551	2/2/22	2/2/22	ETS
1551	5.2.5.2.6	Compile results and recommended program improvements to CDE	40 days	1550	NA	2/3/22	3/30/22	ETS
1552	5.2.5.3	Focus Group Meetings	100 days	NA	NA	10/1/20	2/17/21	ETS
1553	5.2.5.3.1	Prepare materials for caaspp.org Focus Groups	20 days	NA	1554	10/1/20	10/28/20	ETS
1554	5.2.5.3.2	Conduct additional Focus Groups as requested	40 days	1553	1555	10/29/20	12/23/20	ETS
1555	5.2.5.3.3	Compile results and recommended program improvements to CDE	40 days	1554	NA	12/24/20	2/17/21	ETS
1556	5.2.5.4	ETS provides updated draft of concurrent usage monitoring plan to CDE	0 days	NA	NA	10/1/20	10/1/20	ETS
1557	5.3	CAASPP Assessment System Releases	352 days	NA	NA	2/5/21	6/13/22	ETS
1558	5.3.1	Operational Test Administration Begins	0 days	NA	1857FS+80d, 1867FS+50d, 1879FS+150d, 1637, 1638, 1639, 1644	9/30/21	9/30/21	ETS
1559	5.3.2	Testing Systems	297 days	NA	NA	2/5/21	3/28/22	ETS
1560	5.3.2.1	Assessment Delivery System Releases	297 days	NA	NA	2/5/21	3/28/22	ETS
1561	5.3.2.1.1	Phase 1 Release (Administration roll over and Interim Assessment launch)	149 days	NA	NA	2/5/21	9/1/21	ETS
1562	5.3.2.1.1.1	Preparation	30 days	NA	NA	2/5/21	3/18/21	ETS
1563	5.3.2.1.1.1.1	Meet with CDE to review requirements	20 days	NA	1564FS-10d	2/5/21	3/4/21	ETS
1564	5.3.2.1.1.1.2	Work with CDE to schedule and communicate system downtimes	20 days	1563FS-10d	1566	2/19/21	3/18/21	ETS
1565	5.3.2.1.1.2	Functional Requirements	40 days	NA	NA	3/19/21	5/13/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1566	5.3.2.1.1.2.1	Create functional requirements and submit to CDE for review	25 days	1564	1567	3/19/21	4/22/21	ETS
1567	5.3.2.1.1.2.2	CDE reviews functional requirements	10 days	1566	1568	4/23/21	5/6/21	ETS
1568	5.3.2.1.1.2.3	Work with CDE to finalize functional requirements	5 days	1567	1570, 1585FS+5d	5/7/21	5/13/21	ETS
1569	5.3.2.1.1.3	Development and Testing	50 days	NA	NA	5/14/21	7/22/21	ETS
1570	5.3.2.1.1.3.1	System development	40 days	1568	1571FS-20d	5/14/21	7/8/21	ETS
1571	5.3.2.1.1.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	1570FS-20d	1573	6/11/21	7/22/21	ETS
1572	5.3.2.1.1.4	User Acceptance Testing	25 days	NA	NA	7/23/21	8/26/21	ETS
1573	5.3.2.1.1.4.1	Internal ETS/AIR UAT	5 days	15, 711, 808	1574	7/23/21	7/29/21	ETS
1574	5.3.2.1.1.4.2	Internal fix cycle	5 days	1573	1575	7/30/21	8/5/21	ETS
1575	5.3.2.1.1.4.3	CDE initial UAT	5 days	1574	1576	8/6/21	8/12/21	CDE
1576	5.3.2.1.1.4.4	Fix cycle	5 days	1575	1577	8/13/21	8/19/21	ETS
1577	5.3.2.1.1.4.5	CDE final UAT	5 days	1576	1579	8/20/21	8/26/21	CDE
1578	5.3.2.1.1.5	Phase 1 Go-Live	4 days	NA	NA	8/27/21	9/1/21	ETS
1579	5.3.2.1.1.5.1	Conduct release review call with CDE	1 day	1577	1580	8/27/21	8/27/21	ETS
1580	5.3.2.1.1.5.2	CDE approves release	0 days	1579	1581	8/27/21	8/27/21	CDE
1581	5.3.2.1.1.5.3	Software launch	3 days	1580	1582	8/30/21	9/1/21	ETS
1582	5.3.2.1.1.5.4	Software go-live	0 days	1581	1810	9/1/21	9/1/21	ETS
1583	5.3.2.1.2	Phase 2 Release (Summative Assessment launch)	163 days	NA	NA	5/21/21	1/4/22	ETS
1584	5.3.2.1.2.1	Preparation	30 days	NA	NA	5/21/21	7/1/21	ETS
1585	5.3.2.1.2.1.1	Meet with CDE to review requirements	20 days	1568FS+5d	1586FS-10d	5/21/21	6/17/21	ETS
1586	5.3.2.1.2.1.2	Work with CDE to schedule and communicate system downtimes	20 days	1585FS-10d	1588	6/4/21	7/1/21	ETS
1587	5.3.2.1.2.2	Functional Requirements	54 days	NA	NA	7/2/21	9/15/21	ETS
1588	5.3.2.1.2.2.1	Create functional requirements and submit to CDE for review	39 days	1586	1589	7/2/21	8/25/21	ETS

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ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1589	5.3.2.1.2.2.2	CDE reviews functional requirements	10 days	1588	1590	8/26/21	9/8/21	ETS
1590	5.3.2.1.2.2.3	Work with CDE to finalize functional requirements	5 days	1589	1592, 1607FS+5d	9/9/21	9/15/21	ETS
1591	5.3.2.1.2.3	Development and Testing	50 days	NA	NA	9/16/21	11/24/21	ETS
1592	5.3.2.1.2.3.1	System development	40 days	1590	1593FS-20d	9/16/21	11/10/21	ETS
1593	5.3.2.1.2.3.2	Software and performance testing (provide performance testing results to CDE)	30 days	1592FS-20d	1595	10/14/21	11/24/21	ETS
1594	5.3.2.1.2.4	User Acceptance Testing	25 days	NA	NA	11/25/21	12/29/21	ETS
1595	5.3.2.1.2.4.1	Internal ETS/AIR UAT	5 days	15, 931, 809	1596	11/25/21	12/1/21	ETS
1596	5.3.2.1.2.4.2	Internal fix cycle	5 days	1595	1597	12/2/21	12/8/21	ETS
1597	5.3.2.1.2.4.3	CDE initial UAT	5 days	1596	1598	12/9/21	12/15/21	CDE
1598	5.3.2.1.2.4.4	Fix cycle	5 days	1597	1599	12/16/21	12/22/21	ETS
1599	5.3.2.1.2.4.5	CDE final UAT	5 days	1598	1601	12/23/21	12/29/21	CDE
1600	5.3.2.1.2.5	Phase 2 Go-Live	4 days	NA	NA	12/30/21	1/4/22	ETS
1601	5.3.2.1.2.5.1	Conduct release review call with CDE	1 day	1599	1602	12/30/21	12/30/21	ETS
1602	5.3.2.1.2.5.2	CDE approves release	0 days	1601	1603	12/30/21	12/30/21	CDE
1603	5.3.2.1.2.5.3	Software launch	3 days	1602	1604	12/31/21	1/4/22	ETS
1604	5.3.2.1.2.5.4	Software go-live	0 days	1603	1811FS-1d	1/4/22	1/4/22	ETS
1605	5.3.2.1.3	Phase 3 Release (Reporting System)	133 days	NA	NA	9/23/21	3/28/22	ETS
1606	5.3.2.1.3.1	Preparation	25 days	NA	NA	9/23/21	10/27/21	ETS
1607	5.3.2.1.3.1.1	Meet with CDE to review requirements	20 days	1590FS+5d	1608FS-10d	9/23/21	10/20/21	ETS
1608	5.3.2.1.3.1.2	Work with CDE to schedule and communicate system downtimes	15 days	1607FS-10d	1610	10/7/21	10/27/21	ETS
1609	5.3.2.1.3.2	Functional Requirements	40 days	NA	NA	10/28/21	12/22/21	ETS
1610	5.3.2.1.3.2.1	Create functional requirements and submit to CDE for review	25 days	1608	1611	10/28/21	12/1/21	ETS
1611	5.3.2.1.3.2.2	CDE reviews functional requirements	10 days	1610	1612	12/2/21	12/15/21	ETS
1612	5.3.2.1.3.2.3	Work with CDE to finalize functional requirements	5 days	1611	1614	12/16/21	12/22/21	ETS
1613	5.3.2.1.3.3	Development and Testing	39 days	NA	NA	12/23/21	2/15/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1614	5.3.2.1.3.3.1	System development	34 days	1612	1615FS-20d	12/23/21	2/8/22	ETS
1615	5.3.2.1.3.3.2	Software and performance testing (provide performance testing results to CDE)	25 days	1614FS-20d	1617	1/12/22	2/15/22	ETS
1616	5.3.2.1.3.4	User Acceptance Testing	25 days	NA	NA	2/16/22	3/22/22	ETS
1617	5.3.2.1.3.4.1	Internal ETS/AIR UAT	5 days	1615	1618	2/16/22	2/22/22	ETS
1618	5.3.2.1.3.4.2	Internal fix cycle	5 days	1617	1619	2/23/22	3/1/22	ETS
1619	5.3.2.1.3.4.3	CDE initial UAT	5 days	1618	1620	3/2/22	3/8/22	CDE
1620	5.3.2.1.3.4.4	Fix cycle	5 days	1619	1621	3/9/22	3/15/22	ETS
1621	5.3.2.1.3.4.5	CDE final UAT	5 days	1620	1623	3/16/22	3/22/22	CDE
1622	5.3.2.1.3.5	Phase 3 Go-Live	4 days	NA	NA	3/23/22	3/28/22	ETS
1623	5.3.2.1.3.5.1	Conduct release review call with CDE	1 day	1621	1624	3/23/22	3/23/22	ETS
1624	5.3.2.1.3.5.2	CDE approves release	0 days	1623	1625	3/23/22	3/23/22	CDE
1625	5.3.2.1.3.5.3	Software launch	3 days	1624	1626	3/24/22	3/28/22	ETS
1626	5.3.2.1.3.5.4	Software go-live	0 days	1625	NA	3/28/22	3/28/22	ETS
1627	5.3.3	Interim Assessment Registration, Test Content and Ancillaries	40 days	NA	NA	7/1/21	8/25/21	ETS
1628	5.3.3.1	New enhanced test packages available from Smarter Balanced	0 days	NA	1629	7/1/21	7/1/21	ETS
1629	5.3.3.2	Process new test packages	20 days	1628	16, 301, 631	7/1/21	7/28/21	ETS
1630	5.3.3.3	Updated Interim Comprehensive Assessment (summative clone) (ICA) launched	1 day	1629	NA	7/29/21	7/29/21	ETS
1631	5.3.3.4	Updated Interim Assessment Blocks (IAB) launched	1 day	1629	NA	7/29/21	7/29/21	ETS
1632	5.3.3.5	Configure Smarter Balanced System User Guide for CA	40 days	NA	1633SS	7/1/21	8/25/21	ETS
1633	5.3.3.6	Configure Smarter Balanced Scoring Guide for CA	40 days	1632SS	1634SS	7/1/21	8/25/21	ETS
1634	5.3.3.7	Configure Smarter Balanced System Infrastructure Guide for CA	40 days	1633SS	1635SS	7/1/21	8/25/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1635	5.3.3.8	Configure Smarter Balanced System Training Workbook for CA	40 days	1634SS	NA	7/1/21	8/25/21	ETS
1636	5.3.4	Summative Computer Based Assessments	183 days	NA	NA	9/30/21	6/13/22	ETS
1637	5.3.4.1	Summative content packages available for CAT	0 days	1558	1640	9/30/21	9/30/21	ETS
1638	5.3.4.2	Summative content packages available for PT	0 days	1558	1640	9/30/21	9/30/21	ETS
1639	5.3.4.3	Summative test packages available for CAT and PT	0 days	1558	1640	9/30/21	9/30/21	ETS
1640	5.3.4.4	Import and QC test packages	20 days	NA#	1642FS+25d	9/30/21	10/27/21	ETS
1641	5.3.4.5	Update enrollment/test administration information	20 days	1642SS-40d	1648	10/7/21	11/3/21	ETS
1642	5.3.4.6	Administer summative assessments (Smarter Balanced ELA/Math, ELA/Math Alternate)	138 days	1640FS+25d	1641SS-40d, 1849SS+23d, 1649SS+5d, 1833FS-40d, 1829SS+5d, 1841SS+5d, 1647SS	12/2/21	6/13/22	ETS
1643	5.3.5	Summative Paper/Pencil Testing	180 days	NA	NA	9/30/21	6/8/22	ETS
1644	5.3.5.1	Receive paper-based tests from Smarter Balanced	1 day	1558	16, 531, 645	9/30/21	9/30/21	ETS
1645	5.3.5.2	Add covers	10 days	1644	1646	10/1/21	10/14/21	ETS
1646	5.3.5.3	Print all summative operational paper tests	30 days	1645	1648FS+10d	10/15/21	11/25/21	ETS
1647	5.3.5.4	Receive material orders	129 days	1642SS	1648SS+1d	12/2/21	5/31/22	ETS
1648	5.3.5.5	Distribute paper tests as needed	129 days	1641, 1646FS+10d, 1647SS+1d	1654SS+1d	12/10/21	6/8/22	ETS
1649	5.3.5.6	Receive paper tests	129 days	1642SS+5d	1650SS	12/9/21	6/7/22	ETS
1650	5.3.5.7	Scan paper tests	129 days	1649SS	1651SS+1d	12/9/21	6/7/22	ETS
1651	5.3.5.8	Conduct resolutions on paper tests	129 days	1650SS+1d	1829SS+5d, 1841SS+5d	12/10/21	6/8/22	ETS
1652	5.3.5.9	Special Versions	179 days	NA	NA	10/1/21	6/8/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1653	5.3.5.9.1	Produce large print & Braille	40 days	1644	1654FS+10d	10/1/21	11/25/21	ETS
1654	5.3.5.9.2	Deliver large print and Braille as requested	128 days	1648SS+1d, 1653FS+10d	NA	12/13/21	6/8/22	ETS
1655	5.4	CAASPP Expansion Assessments	630 days	NA	NA	8/3/20	12/30/22	ETS
1656	5.4.1	CSA	391 days	NA	NA	7/2/21	12/30/22	ETS
1657	5.4.1.1	2021–22 Operational Test Development	115 days	NA	NA	7/2/21	12/9/21	ETS
1658	5.4.1.1.1	Operational Test Passage/Item Development	60 days	NA	1659FS-80d	7/30/21	10/21/21	ETS
1659	5.4.1.1.2	Operational Test Forms Development	100 days	1658FS-80d	1660SS	7/2/21	11/18/21	ETS
1660	5.4.1.1.3	CSA Operational Practice and Training Test Development	95 days	1659SS	1661FS-40d	7/2/21	11/11/21	ETS
1661	5.4.1.1.4	Operational Rangefinding Meeting Planning and Execution	60 days	1660FS-40d	NA	9/17/21	12/9/21	ETS
1662	5.4.1.2	Operational Test Administration 2021–22	259 days	NA	NA	1/4/22	12/30/22	ETS
1663	5.4.1.2.1	Operational Test Administration	139 days	NA	1666, 1664FS-25d	1/4/22	7/15/22	ETS
1664	5.4.1.2.2	Operational Test Final Item Analysis (FIA)	25 days	1663FS-25d	16, 651, 668	6/13/22	7/15/22	ETS
1665	5.4.1.2.3	Embedded Field Test item analysis	20 days	1664	NA	7/18/22	8/12/22	ETS
1666	5.4.1.2.4	Operational Test Data Review Meeting (with Educators)	30 days	1663	1667FS-20d	7/18/22	8/26/22	ETS
1667	5.4.1.2.5	Develop and deliver Operational Test Analysis Report	30 days	1666FS-20d	1669	8/1/22	9/9/22	ETS
1668	5.4.1.2.6	Develop and distribute Operational Test Post-Test Survey	30 days	1664	NA	7/18/22	8/26/22	ETS
1669	5.4.1.2.7	2021–22 Technical Report	80 days	1667	NA	9/12/22	12/30/22	ETS
1670	5.4.2	CAA Science	605 days	NA	NA	8/24/20	12/16/22	ETS
1671	5.4.2.1	Test Design Team meeting	1 day	NA	NA	6/3/21	6/3/21	ETS
1672	5.4.2.2	Operational Test Planning & Item Development	244 days	NA	NA	8/24/20	7/29/21	ETS
1673	5.4.2.2.1	Item Development Plan & Item and Content Specifications	60 days	NA	NA	8/24/20	11/13/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1674	5.4.2.2.1.1	Draft IDP & Item and Content Specs	20 days	NA	1675	8/24/20	9/18/20	ETS
1675	5.4.2.2.1.2	CDE Review of IDP & Item and Content Specs	20 days	1674	1676	9/21/20	10/16/20	CDE
1676	5.4.2.2.1.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	20 days	1675	1677	10/19/20	11/13/20	ETS
1677	5.4.2.2.1.4	Complete IDP & Item and Content Specs	0 days	1676	1701	11/13/20	11/13/20	ETS
1678	5.4.2.2.2	Item Writer Workshop	77 days	NA	NA	8/31/20	12/15/20	ETS
1679	5.4.2.2.2.1	Develop and finalize item writer workshop plan	20 days	NA	1680	8/31/20	9/25/20	ETS
1680	5.4.2.2.2.2	Develop and finalize item writer workshop materials	37 days	1679	NA	9/28/20	11/17/20	ETS
1681	5.4.2.2.2.3	Conduct Item Writer Workshop	2 days	NA	1689	12/14/20	12/15/20	ETS
1682	5.4.2.2.3	Operational Test Plan	60 days	NA	NA	10/22/20	1/13/21	ETS
1683	5.4.2.2.3.1	Draft Operational Test Plan	20 days	NA	1684	10/22/20	11/18/20	ETS
1684	5.4.2.2.3.2	Work with CDE to Finalize Operational Test Plan	40 days	1683	1701	11/19/20	1/13/21	ETS
1685	5.4.2.2.4	Test Specifications and Blueprints	60 days	NA	NA	10/22/20	1/13/21	ETS
1686	5.4.2.2.4.1	Draft Test Specs and Blueprints	20 days	NA	1687	10/22/20	11/18/20	ETS
1687	5.4.2.2.4.2	Work with CDE to finalize Test Specs and Blueprints	40 days	1686	1701	11/19/20	1/13/21	ETS
1688	5.4.2.2.5	Item Development	77 days	NA	NA	12/16/20	4/1/21	ETS
1689	5.4.2.2.5.1	Draft embedded PTs	50 days	1681	1690	12/16/20	2/23/21	ETS
1690	5.4.2.2.5.2	Author embedded PT questions in IBIS	10 days	1689	1691	2/24/21	3/9/21	ETS
1691	5.4.2.2.5.3	Prepare materials for Item Review meeting	10 days	1690	1692	3/10/21	3/23/21	ETS
1692	5.4.2.2.5.4	Finalize materials	2 days	1691	1693	3/24/21	3/25/21	ETS
1693	5.4.2.2.5.5	CDE receives Performance Tasks for preview	0 days	1692	1694	3/25/21	3/25/21	CDE
1694	5.4.2.2.5.6	Apply final changes to Embedded PTs pre-IRC based on feedback from CDE Previews	5 days	1693	1701	3/26/21	4/1/21	ETS
1695	5.4.2.2.6	CAA Item Review meeting	68 days	NA	NA	1/11/21	4/14/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1696	5.4.2.2.6.1	Develop and finalize with CDE the Plan document for CAA Science Item Review	50 days	NA	1700FS-29d, 1697SS+10d, 1698SS-5d, 1699SS+15d	1/18/21	3/26/21	ETS
1697	5.4.2.2.6.2	Develop Meeting Specs (participant count, meeting date, venue confirmation, etc.)	25 days	1696SS+10d	1701	2/1/21	3/5/21	ETS
1698	5.4.2.2.6.3	Construct Invitee list for CAA Item Review	8 days	1696SS-5d	NA	1/11/21	1/20/21	ETS
1699	5.4.2.2.6.4	Develop Invitation letters for CAA Item Review	14 days	1696SS+15d	1701	2/8/21	2/25/21	ETS
1700	5.4.2.2.6.5	Work with CDE to Develop Meeting Materials	40 days	1696FS-29d	1701	2/16/21	4/12/21	ETS, CDE
1701	5.4.2.2.6.6	CAA Science Item Review *(includes Operational Test/Practice Test Item Determinations)	2 days	NA#	1703, 1705, 1717, 1718FS-30d, 1719FS-30d, 1720FS+27d, 1721FS+30d	4/13/21	4/14/21	ETS
1702	5.4.2.2.7	Item Finalization (Post-committee)	76 days	NA	NA	4/15/21	7/29/21	ETS
1703	5.4.2.2.7.1	Embedded PT Scaffolding Activities	56 days	1701	1704FS-20d	4/15/21	7/1/21	ETS
1704	5.4.2.2.7.2	508 tagging	31 days	1703FS-20d	NA	6/4/21	7/16/21	ETS
1705	5.4.2.2.7.3	Update Embedded PT questions (for IBIS)	76 days	1701	1708	4/15/21	7/29/21	ETS
1706	5.4.2.3	AIR TDS Production	63 days	NA	NA	7/29/21	10/26/21	ETS
1707	5.4.2.3.1	Construct TDS items for AIR	63 days	NA	NA	7/29/21	10/26/21	ETS
1708	5.4.2.3.1.1	IBIS items Locked	0 days	1705	1709	7/29/21	7/29/21	ETS
1709	5.4.2.3.1.2	Prepare IBIS items for export	5 days	1708	1710	7/30/21	8/5/21	ETS
1710	5.4.2.3.1.3	Submit IBIS items to AIR	0 days	1709	1711	8/5/21	8/5/21	ETS
1711	5.4.2.3.1.4	AIR returns ITS IDs for items	3 days	1710	1712	8/6/21	8/10/21	ETS
1712	5.4.2.3.1.5	Provide sequence IDs and return to AIR	1 day	1711	1713	8/11/21	8/11/21	ETS
1713	5.4.2.3.1.6	Confirm sequences at AIR	1 day	1712	1714	8/12/21	8/12/21	ETS
1714	5.4.2.3.1.7	Content Lockdown	0 days	1713	1715FS+53d	8/12/21	8/12/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1715	5.4.2.3.1.8	Embedded PTs available in TDS to LEAs	0 days	1714FS+53d, 1720, 1721	1724FS-80d	10/26/21	10/26/21	ETS
1716	5.4.2.4	Administration Support Materials	169 days	NA	NA	3/4/21	10/26/21	ETS
1717	5.4.2.4.1	Develop Practice Tests	102 days	1701	17, 241, 723	4/15/21	9/3/21	ETS
1718	5.4.2.4.2	Develop Pre-Administration Support Video	105 days	1701FS-30d	17, 241, 723	3/4/21	7/28/21	ETS
1719	5.4.2.4.3	Develop Pre-Administration Test Examiner Online Training Module	105 days	1701FS-30d	17, 241, 723	3/4/21	7/28/21	ETS
1720	5.4.2.4.4	Develop TE TDS Guide (for OTAM)	112 days	1701FS+27d	1715	5/24/21	10/26/21	ETS
1721	5.4.2.4.5	Develop TE TDS Video	96 days	1701FS+30d	1715	5/27/21	10/7/21	ETS
1722	5.4.2.5	Operational Administration	225 days	NA	NA	9/3/21	7/15/22	ETS
1723	5.4.2.5.1	Non-secure standard, topic, and activity information available to LEAs	0 days	NA#	NA	9/3/21	9/3/21	ETS
1724	5.4.2.5.2	Secure test content available to LEA	0 days	1715FS-80d, 1717, 1718, 1719	1725FS+225d, 1727FS+45d, 1732FS+45d	9/3/21	9/3/21	ETS
1725	5.4.2.5.3	Operational administration ends (mid-July)	0 days	1724FS+225d	NA	7/15/22	7/15/22	ETS
1726	5.4.2.6	Results	290 days	NA	NA	11/8/21	12/16/22	ETS
1727	5.4.2.6.1	Develop and Release Test Examiner Survey	47 days	1724FS+45d	1729	11/8/21	1/11/22	ETS
1728	5.4.2.6.2	Pilot Observations	154 days	NA	NA	11/8/21	6/9/22	ETS
1729	5.4.2.6.2.1	Contact and determine schools for observation	10 days	1727	1730	1/12/22	1/25/22	ETS
1730	5.4.2.6.2.2	Identify observer pool	2 days	1729	1731	1/26/22	1/27/22	ETS
1731	5.4.2.6.2.3	Secure training logistics	10 days	1730	1733	1/28/22	2/10/22	ETS
1732	5.4.2.6.2.4	Develop Training Protocols	56 days	1724FS+45d	1733	11/8/21	1/24/22	ETS
1733	5.4.2.6.2.5	Observer Training	3 days	17, 311, 732	1734	2/11/22	2/15/22	ETS
1734	5.4.2.6.2.6	Conduct Pilot Observations	20 days	1733	1736	2/16/22	3/15/22	ETS
1735	5.4.2.6.2.7	Observation Results	35 days	NA	NA	3/16/22	5/3/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1736	5.4.2.6.2.7.1	Analysis of Results	10 days	1734	1737, 1741FS+50d	3/16/22	3/29/22	ETS
1737	5.4.2.6.2.7.2	Draft memo of Observation Results	20 days	1736	1738	3/30/22	4/26/22	ETS
1738	5.4.2.6.2.7.3	Finalize memo of Observation Results	5 days	1737	1739	4/27/22	5/3/22	ETS
1739	5.4.2.6.2.7.4	Submit memo of Observation Results to CDE	0 days	1738	NA	5/3/22	5/3/22	ETS
1740	5.4.2.6.2.8	Operational Data Review	2 days	NA	NA	6/8/22	6/9/22	ETS
1741	5.4.2.6.2.8.1	Conduct Operational Data Review Meeting	2 days	1736FS+50d	NA	6/8/22	6/9/22	ETS
1742	5.4.2.6.3	Technical Report	127 days	NA	NA	6/23/22	12/16/22	ETS
1743	5.4.2.6.3.1	Draft Technical Report using P2 data and CDE feedback on table of contents	100 days	NA	1744	6/23/22	11/9/22	ETS
1744	5.4.2.6.3.2	Editorial Review of the Technical Report	5 days	1743	1745	11/10/22	11/16/22	ETS
1745	5.4.2.6.3.3	Submit Technical Report to CDE	0 days	1744	1746	11/16/22	11/16/22	ETS
1746	5.4.2.6.3.4	CDE Review of Technical Report	20 days	1745	1747	11/17/22	12/14/22	CDE
1747	5.4.2.6.3.5	Apply final changes to Technical Report based on CDE feedback	2 days	1746	1748	12/15/22	12/16/22	ETS
1748	5.4.2.6.3.6	CAA for Science Technical Report completed	0 days	1747	NA	12/16/22	12/16/22	ETS
1749	5.4.3	CAA ELA/Math	483 days	NA	NA	8/12/20	6/17/22	ETS
1750	5.4.3.1	Begin Test Development	0 days	NA	1752	8/12/20	8/12/20	ETS
1751	5.4.3.2	Item Development Plan	35 days	NA	NA	8/12/20	9/29/20	ETS
1752	5.4.3.2.1	Update annual Item Development Plan	20 days	1750	1753	8/12/20	9/8/20	ETS
1753	5.4.3.2.2	CDE reviews and approves Item Development Plan	15 days	1752	NA	9/9/20	9/29/20	CDE
1754	5.4.3.3	Item Writing Workshop	46 days	NA	NA	10/1/20	12/3/20	ETS
1755	5.4.3.3.1	Update Item Writing Workshop Plan	20 days	NA	1756	10/1/20	10/28/20	ETS
1756	5.4.3.3.2	CDE reviews and approves Item Writing Workshop Plan	15 days	1755	1757	10/29/20	11/18/20	CDE
1757	5.4.3.3.3	Prepare for Item Writing Workshop	10 days	1756	1758	11/19/20	12/2/20	ETS
1758	5.4.3.3.4	Conduct Item Writing Workshop	1 day	1757	1760	12/3/20	12/3/20	ETS
1759	5.4.3.4	New Embedded Field Test Item Development	146 days	NA	NA	12/4/20	6/25/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1760	5.4.3.4.1	Develop and review Alternate Assessment ELA/Math Assessment items	112 days	1758	1761	12/4/20	5/10/21	ETS
1761	5.4.3.4.2	CDE reviews new Alternate Assessment ELA/Math items	10 days	1760	1762	5/11/21	5/24/21	CDE
1762	5.4.3.4.3	External committee item review meetings	4 days	1761	1763	5/25/21	5/28/21	ETS
1763	5.4.3.4.4	ETS reviews and approves new items	20 days	1762	1765	5/31/21	6/25/21	ETS
1764	5.4.3.5	Forms Development	86 days	NA	NA	6/28/21	10/25/21	ETS
1765	5.4.3.5.1	Develop CAA ELA/Math test forms and DFAs	35 days	1763	17, 671, 766	6/28/21	8/13/21	ETS
1766	5.4.3.5.2	CDE reviews CAA ELA/Math test forms and DFAs	10 days	1765	NA	8/16/21	8/27/21	CDE
1767	5.4.3.5.3	Develop adaptive routing score thresholds	20 days	1765	1768	8/16/21	9/10/21	ETS
1768	5.4.3.5.4	Deliver routing thresholds to AIR for configuration	1 day	1767	17, 691, 771	9/13/21	9/13/21	ETS
1769	5.4.3.5.5	AIR TDS configuration	30 days	1768	NA	9/14/21	10/25/21	ETS
1770	5.4.3.6	Training Test and DFA Content Refresh	36 days	NA	NA	9/14/21	11/2/21	ETS
1771	5.4.3.6.1	Propose training test edits/replacements to CDE	1 day	1768	1772	9/14/21	9/14/21	ETS
1772	5.4.3.6.2	Edit and update training tests and DFAs	15 days	1771	1773	9/15/21	10/5/21	ETS
1773	5.4.3.6.3	CDE reviews training test and DFAs	10 days	1772	1774	10/6/21	10/19/21	CDE
1774	5.4.3.6.4	TDS configuration for updated training tests and DFAs	10 days	1773	NA	10/20/21	11/2/21	ETS
1775	5.4.3.7	Data Review	2 days	NA	NA	6/16/22	6/17/22	ETS
1776	5.4.3.7.1	Conduct Data Review Meeting	2 days	NA	NA	6/16/22	6/17/22	ETS
1777	5.4.4	CAST	630 days	NA	NA	8/3/20	12/30/22	ETS
1778	5.4.4.1	Item Development	271 days	NA	NA	8/3/20	8/16/21	ETS
1779	5.4.4.1.1	Item and content specifications	10 days	NA	NA	8/3/21	8/16/21	ETS
1780	5.4.4.1.1.1	Review and update the item specifications	10 days	NA	NA	8/3/21	8/16/21	ETS
1781	5.4.4.1.2	Item Development Plan	58 days	NA	NA	8/3/20	10/21/20	ETS
1782	5.4.4.1.2.1	Draft IDP & Item and Content Specs	20 days	NA	1783	8/3/20	8/28/20	ETS
1783	5.4.4.1.2.2	CDE Review of IDP & Item and Content Specs	20 days	1782	1784	8/31/20	9/25/20	ETS
1784	5.4.4.1.2.3	Apply final changes from CDE feedback to IDP & Item and Content Specs	18 days	1783	1785	9/28/20	10/21/20	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1785	5.4.4.1.2.4	Complete IDP & Item and Content Specs	0 days	1784	NA	10/21/20	10/21/20	ETS
1786	5.4.4.1.3	Item Writer Training	48 days	NA	NA	8/17/20	10/21/20	ETS
1787	5.4.4.1.3.1	Update Item Writer training materials	15 days	NA	1788SS+5d, 1790	8/17/20	9/4/20	ETS
1788	5.4.4.1.3.2	Identify stakeholders and draft email invitation for Item Writer training	10 days	1787SS+5d	1789	8/24/20	9/4/20	ETS
1789	5.4.4.1.3.3	CDE reviews and approves stakeholders and email invitation to apply for Item Writer training	10 days	1788	1791	9/7/20	9/18/20	CDE
1790	5.4.4.1.3.4	CDE reviews and approves Item Writer training materials	10 days	1787	1792	9/7/20	9/18/20	CDE
1791	5.4.4.1.3.5	ETS recruits item writer training participants	15 days	1789	1792FS+5d	9/21/20	10/9/20	ETS
1792	5.4.4.1.3.6	ETS conducts Item Writer training	3 days	1790, 1791FS+5d	1794FS-35d	10/19/20	10/21/20	ETS
1793	5.4.4.1.4	Operational Test Items	140 days	NA	NA	9/3/20	3/17/21	ETS
1794	5.4.4.1.4.1	Develop items and flow to CDE for review	105 days	1792FS-35d	1795SS+20d	9/3/20	1/27/21	ETS
1795	5.4.4.1.4.2	Review items as received (review for information only)	95 days	1794SS+20d	1796FS+2w	10/1/20	2/10/21	CDE
1796	5.4.4.1.4.3	Item content and bias committee review	5 days	1795FS+2w	1797	2/25/21	3/3/21	ETS, CDE
1797	5.4.4.1.4.4	Perform post-committee review reconciliation	10 days	1796	1799	3/4/21	3/17/21	ETS, CDE
1798	5.4.4.2	Test Construction	100 days	NA	NA	3/18/21	8/4/21	ETS
1799	5.4.4.2.1	Create item blocks for operational forms, practice test forms, and training test	5 days	1797	1805	3/18/21	3/24/21	ETS
1800	5.4.4.2.2	Finalize test forms for Practice Test and Training Test; perform summative reviews; release content to AIR	20 days	1806	18, 011, 802	5/27/21	6/23/21	ETS
1801	5.4.4.2.3	AIR content lockdown for Practice Test and Training Test	0 days	1800	1808	6/23/21	6/23/21	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1802	5.4.4.2.4	Finalize test forms for Summative Operational Test; perform summative reviews; release content to AIR	30 days	1800	1803	6/24/21	8/4/21	ETS
1803	5.4.4.2.5	AIR content lockdown for Practice Test and Training Test	0 days	1802	1809	8/4/21	8/4/21	ETS
1804	5.4.4.3	Accessibility Content	45 days	NA	NA	3/25/21	5/26/21	ETS
1805	5.4.4.3.1	Create and source accessibility content (Braille, ASL videos, translations, glossaries, etc)	45 days	1799	1806SS+35d	3/25/21	5/26/21	ETS
1806	5.4.4.3.2	Review and approve accessibility content	10 days	1805SS+35d	1800	5/13/21	5/26/21	CDE
1807	5.4.4.4	Integrate Test and Test Delivery System	58 days	NA	NA	6/24/21	9/13/21	ETS
1808	5.4.4.4.1	Integrate Practice and Training Test forms with Test Delivery System; release for internal UAT	17 days	1801	1573	6/24/21	7/16/21	ETS
1809	5.4.4.4.2	Integrate Summative Operational test forms with Test Delivery System; release for internal UAT	28 days	1803	1595	8/5/21	9/13/21	ETS
1810	5.4.4.5	Training and Practice Tests available to schools	0 days	1582	NA	9/1/21	9/1/21	ETS
1811	5.4.4.6	Summative Operational Test Administration	137 days	1604FS-1d	1813SS+60d	1/4/22	7/13/22	ETS
1812	5.4.4.7	Human CR scoring	86 days	NA	NA	3/29/22	7/26/22	ETS
1813	5.4.4.7.1	Prepare Rangefinding materials and provide to CDE	10 days	1811SS+60d	1814	3/29/22	4/11/22	ETS
1814	5.4.4.7.2	Review and approve Rangefinding materials	10 days	1813	1815FS+5d	4/12/22	4/25/22	CDE
1815	5.4.4.7.3	Conduct Rangefinding meeting	1 day	1814FS+5d	1816	5/3/22	5/3/22	ETS
1816	5.4.4.7.4	Configure scoring system with CAST materials	10 days	1815	1817	5/4/22	5/17/22	ETS
1817	5.4.4.7.5	Human scoring of CR's	50 days	1816	1819SS+7d	5/18/22	7/26/22	ETS
1818	5.4.4.8	Post-admin statistical analysis	8 days	NA	NA	5/27/22	6/7/22	ETS
1819	5.4.4.8.1	Item and DIF analyses	8 days	1817SS+7d	1821	5/27/22	6/7/22	ETS
1820	5.4.4.9	Technical Report	148 days	NA	NA	6/8/22	12/30/22	ETS
1821	5.4.4.9.1	Create technical report and submit to CDE for review	118 days	1819	1822	6/8/22	11/18/22	ETS
1822	5.4.4.9.2	Review and approve technical report	20 days	1821	1823	11/21/22	12/16/22	CDE

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1823	5.4.4.9.3	Finalize and post technical report	10 days	1822	NA	12/19/22	12/30/22	ETS
1824	5.5	ELPAC Administration	261 days	NA	NA	7/1/21	6/30/22	ETS
1825	5.5.1	IA CBA Operational Administration	261 days	NA	NA	7/1/21	6/30/22	ETS
1826	5.5.2	SA CBA Operational Administration	86 days	NA	NA	2/1/22	5/31/22	ETS
1827	5.6	Scoring	437 days	NA	NA	10/7/20	6/9/22	ETS
1828	5.6.1	Summative Computer Based Assessments	121 days	NA	NA	12/17/21	6/3/22	ETS
1829	5.6.1.1	Hand and AI scoring occurs	121 days	1642SS+5d, 1651SS+5d	1830SS, 1831SS	12/17/21	6/3/22	ETS
1830	5.6.1.2	Perform scoring QC	121 days	1829SS	NA	12/17/21	6/3/22	ETS
1831	5.6.1.3	Final scoring occurs	121 days	1829SS	1875SS	12/17/21	6/3/22	ETS
1832	5.6.2	Psychometric Analysis	38 days	NA	NA	4/19/22	6/9/22	ETS
1833	5.6.2.1	Conduct Item Analysis of CAASPP Summative assessments	16 days	1642FS-40d	1834	4/19/22	5/10/22	ETS
1834	5.6.2.2	Item Analysis Files delivered to CDE	1 day	1833	1835FS+20d, 1882	5/11/22	5/11/22	ETS
1835	5.6.2.3	Facilitate Alternate Assessment Data Review meeting	1 day	1834FS+20d	NA	6/9/22	6/9/22	ETS
1836	5.6.3	Appeals	200 days	NA	NA	10/7/20	7/13/21	ETS
1837	5.6.3.1	Monitor appeals	200 days	NA	NA	10/7/20	7/13/21	ETS
1838	5.7	Reporting	273 days	NA	NA	12/9/21	12/26/22	ETS
1839	5.7.1	Summative Assessment	212 days	NA	NA	12/9/21	9/30/22	ETS
1840	5.7.1.1	Delivery of Data Files to CDE	206 days	NA	NA	12/17/21	9/30/22	ETS
1841	5.7.1.1.1	Prepare student data files	90 days	1642SS+5d, 1651SS+5d	NA	12/17/21	4/21/22	ETS
1842	5.7.1.1.2	Post initial student data files (P1) to SFTP site for CDE	1 day	NA	NA	6/30/22	6/30/22	ETS
1843	5.7.1.1.3	Post final data files (P2) to SFTP site for CDE	1 day	NA	1882, 1844FS+21d	8/31/22	8/31/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1844	5.7.1.1.4	ETS delivers a student-level data file of test settings assigned and used by the student	1 day	1843FS+21d	NA	9/30/22	9/30/22	ETS
1845	5.7.1.2	Online Reporting Systems	119 days	NA	NA	1/4/22	6/17/22	ETS
1846	5.7.1.2.1	Online Reporting Systems Setup	1 day	NA	NA	1/7/22	1/7/22	ETS
1847	5.7.1.2.1.1	Deploy online reporting system	1 day	NA	1850	1/7/22	1/7/22	ETS
1848	5.7.1.2.2	Student Level Reporting	90 days	NA	NA	1/4/22	5/9/22	ETS
1849	5.7.1.2.2.1	Provide final individual scores within 4 weeks of student online test completion	90 days	1642SS+23d	NA	1/4/22	5/9/22	ETS
1850	5.7.1.2.2.2	Launch ISR availability within online reporting system	1 day	1847	1852FS+50d	1/10/22	1/10/22	ETS
1851	5.7.1.2.3	School Level Reporting	1 day	NA	NA	3/22/22	3/22/22	ETS
1852	5.7.1.2.3.1	Launch school level reporting functionality	1 day	1850FS+50d	1854FS+10d	3/22/22	3/22/22	ETS
1853	5.7.1.2.4	LEA Level Reporting	1 day	NA	NA	4/6/22	4/6/22	ETS
1854	5.7.1.2.4.1	Launch LEA level reporting functionality	1 day	1852FS+10d	NA	4/6/22	4/6/22	ETS
1855	5.7.1.2.5	State Level Reporting	107 days	NA	NA	1/20/22	6/17/22	ETS
1856	5.7.1.2.5.1	State Aggregate Reporting Website	107 days	NA	NA	1/20/22	6/17/22	ETS
1857	5.7.1.2.5.1.1	Develop business requirements	40 days	1558FS+80d	1858	1/20/22	3/16/22	ETS
1858	5.7.1.2.5.1.2	CDE provides text for site	1 day	1857	1859	3/17/22	3/17/22	CDE
1859	5.7.1.2.5.1.3	Construct web reporting site	30 days	1858	1860	3/18/22	4/28/22	ETS
1860	5.7.1.2.5.1.4	CDE UAT of Web Reporting Site	10 days	1859	1861	4/29/22	5/12/22	CDE
1861	5.7.1.2.5.1.5	CDE provides feedback on changes needed	10 days	1860	1862	5/13/22	5/26/22	CDE
1862	5.7.1.2.5.1.6	Apply changes	5 days	1861	1863	5/27/22	6/2/22	ETS
1863	5.7.1.2.5.1.7	CDE second UAT	5 days	1862	1864	6/3/22	6/9/22	CDE
1864	5.7.1.2.5.1.8	Finalize site with CDE updates	5 days	1863	1865	6/10/22	6/16/22	ETS
1865	5.7.1.2.5.1.9	Deploy State level reporting website	1 day	1864	NA	6/17/22	6/17/22	ETS
1866	5.7.1.3	Individual Student Report	157 days	NA	NA	12/9/21	7/15/22	ETS
1867	5.7.1.3.1	Develop individual student report	40 days	1558FS+50d	1868	12/9/21	2/2/22	ETS
1868	5.7.1.3.2	CDE reviews individual student report	10 days	1867	1869	2/3/22	2/16/22	CDE
1869	5.7.1.3.3	Update individual student report	3 days	1868	1870	2/17/22	2/21/22	ETS

ID	WBS	Task Name	Duration	Pred	Succ	Start	Finish	Resource
1870	5.7.1.3.4	CDE 2nd review of individual student report	5 days	1869	1871	2/22/22	2/28/22	CDE
1871	5.7.1.3.5	Apply updates & submit to CDE for approval	3 days	1870	1872	3/1/22	3/3/22	ETS
1872	5.7.1.3.6	Conduct SSR Pilot Review meeting	1 day	1871	1873	3/4/22	3/4/22	ETS
1873	5.7.1.3.7	Post Student Score Reports (SSR) for LEAs	95 days	1872	NA	3/7/22	7/15/22	ETS
1874	5.7.1.4	Rescore Process	155 days	NA	NA	12/17/21	7/21/22	ETS
1875	5.7.1.4.1	LEAs request rescores	140 days	1831SS	1876SS+30d	12/17/21	6/30/22	ETS
1876	5.7.1.4.2	Provide rescore results	120 days	1875SS+30d	1877SS+5d	1/28/22	7/14/22	ETS
1877	5.7.1.4.3	Invoicing for rescores occurs	120 days	1876SS+5d	NA	2/4/22	7/21/22	ETS
1878	5.7.2	Understanding SSRs Guides	31 days	NA	NA	4/28/22	6/9/22	ETS
1879	5.7.2.1	Produce Understanding SSRs guides in 5 languages	30 days	1558FS+150d	1880	4/28/22	6/8/22	ETS
1880	5.7.2.2	Post Understanding SSRs guides in 5 languages	1 day	1879	NA	6/9/22	6/9/22	ETS
1881	5.7.3	Technical Report	83 days	NA	NA	9/1/22	12/26/22	ETS
1882	5.7.3.1	Develop Technical Manual	40 days	18, 341, 843	1883	9/1/22	10/26/22	ETS
1883	5.7.3.2	CDE reviews Technical Report and returns edits to ETS	20 days	1882	1884	10/27/22	11/23/22	CDE
1884	5.7.3.3	ETS applies edits and delivers final Technical Report to CDE	10 days	1883	1885	11/24/22	12/7/22	ETS
1885	5.7.3.4	CDE 2nd review of Technical Report	10 days	1884	1886	12/8/22	12/21/22	CDE
1886	5.7.3.5	Apply updates and deliver Technical Manual to CDE for approval	3 days	1885	NA	12/22/22	12/26/22	ETS
1887	6	Contract Closeout and Transition	435 days	NA	NA	5/3/21	12/30/22	ETS
1888	6.1	Transition planning	90 days	NA	1890	5/3/21	9/3/21	ETS
1889	6.2	Identify new testing vendor	1 day	NA	1890	9/15/21	9/15/21	CDE
1890	6.3	Prepare transition plan and submit to CDE	20 days	18, 881, 889	1891	9/16/21	10/13/21	ETS
1891	6.4	Review and approve transition plan	10 days	1890	1892FS+30d	10/14/21	10/27/21	CDE
1892	6.5	Transition contract to new testing vendor	277 days	1891FS+30d	1893	12/9/21	12/30/22	ETS
1893	6.6	Contract Complete	0 days	1892	NA	12/30/22	12/30/22	ETS

Appendix B—Reporting Expectations for Special Studies and Research Projects

Special studies and research conducted by ETS must adhere to the American Educational Research Association (AERA) Guidelines for Reporting on Empirical Social Science Research (2006). The following requirements are adapted from the guidelines and represent the basic expectations of the department for reporting results of special studies and research projects contracted for by the CDE.

Overall, reports on special studies and research projects must be:

1. Warranted; that is, adequate evidence should be provided to justify the results and conclusions.

2. Transparent; that is, reporting should make explicit the logic of inquiry and activities that led from the development of the initial interest, topic, problem, or research question; through the definition, collection, and analysis of data or empirical evidence; to the articulated outcomes of the study.

All reports on empirical research submitted to the CDE should include:

A. A problem formulation that provides a clear statement of the purpose and scope of the study. It should describe the question, problem, or issue the study addresses, situate it in context, and describe the approach taken to addressing it.

B. A review of the relevant scholarship that bears directly on the topic of the report. It should include a clear statement of the criteria used to identify and select the relevant scholarship in which the study is grounded. The rationale for the conceptual, methodological, or theoretical orientation of the study should be described and explained with relevant citations to what others have written.

C. A specific and unambiguous description of the design—the way the sources of evidence for data collection or data identification activities selected for and organized in the investigation. Significant developments or alterations in the research questions or design should be described and a rationale for the changes presented.

D. A complete description of the data or empirical materials that were collected, the methods used to collect the data, and the source(s) of the data or materials collected. The means of selection of the sites, groups, participants, events, or other units of study should be described.

E. A complete description of measurement instruments used or classification systems developed to analyze the data. The description must include evidence of the meaningfulness and appropriateness of the measure or classification system for capturing important characteristics of the groups or individuals being studied. With qualitative methods in particular, classification is integral to the data analysis process.

F. The procedures used for analysis should be precisely and transparently described from the beginning of the study through presentation of the outcomes. Descriptive and inferential statistics should be provided for each of the statistical analyses essential to the interpretation of the results. Any considerations that arose in data collection or identified during data analysis and processing that might compromise the validity of the statistical analysis or inferences should be reported.

   1. For qualitative studies, the procedures used for analysis should be precisely and transparently described from the beginning of the study through presentation of the outcomes. Analytic techniques should be described in sufficient detail to permit understanding of how the data were analyzed and the processes and assumptions underlying specific techniques. Analysis and interpretation should include information about any intended or unintended circumstances that may have significant implications for interpretation of the outcomes, limit their applicability, or compromise their validity. If coding processes are used, the description should include, as relevant, information on the backgrounds and training of the coders; inter-coder reliability or outcomes of reviews by other analysts; and, where relevant, indications of the extent to which those studied (participants) agree with the classifications.

   2. For quantitative studies, reporting should clearly state what statistical analyses were conducted and the appropriateness of the statistical tests, linking them to the logic of design and any claims or interpretations based on them. For each of the statistical results that is critical to the logic of the design and analysis, there should be included an indication of the uncertainty of the results such as a standard error or a confidence interval. When hypothesis testing is used, the test statistic and its associated significance level should be presented along with a qualitative interpretation of the meaningfulness of the results in terms of the questions the study was intended to answer.

G. A presentation of conclusions and recommendations that (a) provide a statement of how claims and interpretations address the research problem, question, or issue underlying the research; (b) show how the conclusions connect to, support,

elaborate, or challenge conclusions in earlier scholarship; and (c) emphasize the theoretical, practical, or methodological implications of the study.

Appendix C—Minimum System Requirements

The following table is included in this appendix for reference. ETS will work with the CDE and other stakeholders to determine the final minimum system requirements for each administration.

Table 36. Minimum System Requirements

#	Type	Requirement
ARC-01.01	Architecture	The contractor must provide a data dictionary that utilizes the CDE's preferred variation for each data element collected or stored.
ARC-01.02	Architecture	The contractor must provide dataflow diagrams.
ARC-01.03	Architecture	The contractor must provide an Entity Relationship Diagram (ERD) in the format determined by the CDE.
ARC-01.04	Architecture	The contractor must provide a complete list of Test Delivery System configurations that differ from the open-source system default settings no later than December 31, 2017.
ARC-01.05	Architecture	The Assessment Delivery System must be scalable to accommodate new and modified consortium and California-specific assessments.
INT-02.00	Interface	The Assessment Delivery System must accept test packages (both Smarter Balanced and non-Smarter Balanced) in the Smarter Balanced test package format (see http://www.smarterapp.org) and accurately deliver tests and applicable tools, supports, and accommodations to students with authenticity (inclusive of the adaptive algorithm), collect responses, score responses, and deliver scores to the Data Warehouse.
INT-02.01	Interface	The Assessment Delivery System must successfully and completely process a daily electronic student registration information file, containing up to 6.5 million records, by 6 a.m. PT of the same day of the file availability. The CDE will make the student registration information file available by 2 a.m. PT, Monday through Friday. All current student registration information must be available within the Assessment Delivery System immediately after processing of the student registration information file.

#	Type	Requirement
INT-02.02	Interface	The Assessment Delivery System must successfully identify and process all student information changes (e.g., new, modified, deleted) contained in CALPADS electronic student registration information file.
INT-02.03	Interface	The Assessment Delivery System must be able to complete the processing of electronic data student registration information files received from CALPADS without impacting any other nightly batch processing or maintenance windows.
INT-02.04	Interface	The Assessment Delivery System must generate and deliver to the CDE daily electronic student data files (final specifications will be determined during joint requirement sessions) for CALPADS in a location designated by the CDE.
INT-02.05	Interface	The Assessment Delivery System must accept and process daily (Monday through Friday) Student Access Data Files from LEAs that specify accessibility tools, supports, and accommodations that the student must be provided during summative and/or interim testing, the specifications of which are to be derived during the joint requirement sessions.
INT-02.06	Interface	The Assessment Delivery System must provide students with access to the accessibility tools, supports, and accommodations specified in the Student Access Data File within 24 hours of the contractor receiving the data file from the LEA.
INT-02.07	Interface	The Assessment Delivery System must be able to accommodate annual changes to the Student Access Data File to coincide with the use of new tools, supports, and accommodations as they become available.
INT-02.08	Interface	The contractor must provide a document describing the solution's application programming interfaces and Web services.
INT-02.09	Interface	The Assessment Delivery System must be able to deliver assessments using the minimum technology standards (e.g., network connections, student devices, operating systems) established (and annually updated) by the Smarter Balanced Consortium in the Technology Strategy Framework and Testing Device Requirements.

#	Type	Requirement
INT-02.10	Interface	The Assessment Delivery System must not require the use of any additional software beyond the Secure Browser (e.g., use HTML5 and JavaScript as the means to render items and submit responses).
INT-02.11	Interface	The Assessment Delivery System must support the use of all Smarter Balanced embedded accessibility supports (see Smarter Balanced Assessment Consortium: Usability, Accessibility, and Accommodations Guidelines for description of the Smarter Balanced supports).
INT-02.12	Interface	The Assessment Delivery System must use either the Smarter Balanced Assessment Item Packaging Format as described in the Smarter Balanced Assessment Item Format Specification or, if available, another format consistent with the Smarter Balanced Assessment Item Packaging Format.
INT-02.13	Interface	The Assessment Delivery System must support the scoring of selected-response and constructed-response items using machine scoring, hand scoring, and artificial intelligence (artificial intelligence applicable only if the contractor is using artificial intelligence scoring).
INT-02.14	Interface	The contractor must download the electronic data student registration information file, extracted from CALPADS by the CDE, once a day Monday through Friday, from a CDE-designated location.
INT-02.15	Interface	The Assessment Delivery System must successfully and completely process a daily electronic school and associated LEA information file by 6 a.m. Pacific Standard Time (PT) of the same day of the file availability. The school and associated LEA information file will be extracted from CALPADS and made available by 2 a.m. PT the same day.

#	Type	Requirement
SEC-3.00	Security	The contractor must provide security policy and governance, including: • information security program policies; • information security governance; • use of human-resource policy and practice security controls related to employees and contractors with potential access to sensitive information; • physical security of facilities hosting sensitive information resources; • organization's security audit policy and practice including internal audits, independent audits, the audit scope, the audit frequency, and the exposure/reporting of audit results; • contractor's system administrator roles and access levels and related controls.
SEC-03.01	Security	The Assessment Delivery System must provide hosted and delivered system access control features consistent with RFS Tables 3.3.2 and 3.3.3 that describe required user roles and permissions, including: • system-level access controls; • feature/function access controls; • information/data access controls; • system's incorporation of role based, group-based, and specific user-based access controls.
SEC-03.02	Security	The Assessment Delivery System must provide authentication of users using industry-standard user authentication methods. Access control features will restrict access to information that is outside the responsibility of the assigned user role when the user has numerous, different roles.
SEC-03.03	Security	The Assessment Delivery System must provide the ability to set and enforce password strength and reset policies.

#	Type	Requirement
SEC-03.04	Security	The Assessment Delivery System, including secondary storage, must implement strong encryption (in transit and at rest) consistent with encryption guidelines published by the National Institute of Standards and Technology (NIST), an equivalent, or better, to protect confidential information handled by the system. This information includes student registration information, student identifiable results information, test items, and other information as identified by applicable Federal, State of California, and CDE laws, regulations, or policies. Whenever feasible, cryptographic modules shall be validated to the Federal Information Processing Standard (FIPS) 140-2. In rare instances where encryption cannot be implemented, compensating control(s) or alternatives to encryption must be in place. Compensating controls and alternatives to encryption must be reviewed on a case-by-case basis and approved in writing by the state entity ISO, after a thorough risk analysis.
SEC-03.05	Security	The Assessment Delivery System must purge, dispose, and/or archive sensitive information securely.
SEC-03.06	Security	The Assessment Delivery System must employ integrity, controls such as source authentication, checksums, and message authentication methods to ensure that the secure information, such as student information, test content, answers, and scores, are unaltered and reliable.
SEC-03.07	Security	The Assessment Delivery System must provide availability controls, such as protections against denial of service attacks.
SEC-03.08	Security	The Assessment Delivery System must provide logging and audit controls available in the system to identify all user and system access of all data and functions and provide such information as necessary in the course of a security incident investigation.
SEC-03.09	Security	The contractor must provide a security plan that follows the National Institute of Standards and Technology (NIST) Special Publication 800-18 at http://csrc.nist.gov/publications/nistpubs/800-18-Rev1/sp800-18-Rev1-final.pdf.
SEC-03.10	Security	The contractor shall provide storage administration that includes the strict control and accessibility of all storage media.

#	Type	Requirement
SEC-03.11	Security	The contractor must ensure that all storage media is inventoried on an annual basis, or sooner as dictated by the CDE, regulatory, or other contractual agreements.
SEC-03.12	Security	The contractor must ensure all portable storage devices, including backup tapes, are encrypted using a FIPS 140-2 validated solution. (SAM 5350.1)
SEC-03.15	Security	The contractor must ensure physical media containing PII is maintained in a secure environment prior to its transfer offsite.
SEC-03.16	Security	The contractor must ensure physical media containing PII is monitored during the internal shipping process and must never be left unattended before handoff to the shipper.
SEC-03.17	Security	The contractor must ensure that physical media containing PII is shipped in locked containers with no special markings or other indications of the sensitive nature of the contents.
SEC-03.18	Security	The contractor must ensure shipping procedures include a positive acknowledgement of receipt of encrypted backup files at the destination.
SEC-03.19	Security	If a Cloud Service Provider is used as part of the Assessment Delivery System, the cloud system must be listed as a FedRAMP Compliant Cloud System (see https://www.fedramp.gov/cloud-service-providers/).
SEC-03.20	Security	The contractor must ensure data remains within the continental United States.
SEC-03.21	Security	If a Cloud Service Provider is used as part of the Assessment Delivery System, the data maintained by the Cloud Service Provider shall be consistent with encryption guidelines published by the National Institute of Standards and Technology (NIST), an equivalent, or better, to protect confidential information handled by the system.
SEC-03.22	Security	The contractor must ensure that data will not be converted into a proprietary format which will render the data non-portable.

#	Type	Requirement
SEC-03.23	Security	The contractor must deploy a secure browser (that supports Operating Systems as dictated by Smarter Balanced) annually in order to create a secure interface for students to access only the CAASPP summative tests without any other online-enabled utility (i.e., students may only access the exam). Refer to the Secure Browser Requirements and Specifications at http://www.smarterapp.org/specs/SecureBrowserSpecification.html.
SEC-03.24	Security	The solution proposed for implementing paperless reporting must also adhere to the security requirements in this section.
SEC-03.25	Security	The contractor must allow CDE to perform annual security audits of system activities when requested except in the case a breach. Costs for a CDE or third-party auditor to conduct the annual review will be outside of this contract. Notification of the audit will be provided to the contractor two (2) weeks prior to the requested audit date. The contractor must allow the CDE or authorized third-party auditor the right to inspect artifacts discovered in the audit. Contractor-owned data or shared systems may not kept by the auditor. (See original contract CN150012, Exhibit E–Additional Provisions, Section XVIII–Ownership of Materials.) In the event that nonconformance to contract requirements is found as a result of the annual audit, the contractor must address the issue to be consistent with the applicable contract requirements. In the case of a breach, the contractor must allow the CDE to perform security audits upon demand in the area in which the breach occurred. The contractor must coordinate with the CDE to complete the audit related to a breach. Costs for an audit related to a breach will be negotiated between the contractor and the CDE according to applicable contract provisions.

#	Type	Requirement
SDP-04.00	System Development Process	The Assessment Delivery System must provide real-time progress reporting to LEA CAASPP coordinators, site coordinators, and the CDE pertaining to aggregate test administration information by LEA, school, course/grade, or content area consistent with the roles and permissions established during joint requirement sessions. The specifications of the progress reporting are to be finalized during joint requirement sessions but may include such information as number of tests scheduled (by date or session and test type), number of tests being administered, number of tests completed, and the number of scoreable tests completed.
SDP-04.01	System Development Process	The contractor must have an established, repeatable Unit/Functional testing process for which evidence can be given if requested. The contractor must develop System/Functional, Integration, and User Acceptance Test Plans that describe, at a minimum: • Roles and responsibilities • Scope • System test phases and schedule • System test approach, methodology, and tools • System test entry and exit criteria • System test pass/fail criteria • System test data and metrics • System test reporting • System test scenarios, cases, and scripts • System test defect management processes and procedures
SDP-04.02	System Development Process	The contractor must provide system test environment(s) for each system test phase, including System/Functional, Integration, and User acceptance.
SDP-04.03	System Development Process	The contractor must provide functional testing, including test environment(s), test data, and test to requirements/feature coverage.
SDP-04.04	System Development Process	The Assessment Delivery System must have the ability to limit interim assessment usage (i.e., restrict interim usage) within one hour of receiving the direction from the CDE to do so.

#	Type	Requirement
SDP-04.05	System Development Process	The Assessment Delivery System must create unique test session IDs that ensure secure test administration.
SDP-04.06	System Development Process	The Assessment Delivery System must allow for functionality to process approved appeals (i.e., test reset, invalidation, reopen, and restore).
SDP-04.07	System Development Process	The Assessment Delivery System must allow all students to review their answers for certain sections or sets of questions before moving on to the next section or completing the exam.
SDP-04.08	System Development Process	The Assessment Delivery System must have controls to prevent a student from prematurely exiting an assessment or from being inadvertently exited from an assessment.
SDP-04.09	System Development Process	The Assessment Delivery System must default to human voice when both human and machine voice options are available as a feature of accessibility supports, tools, or accommodations.
SDP-04.10	System Development Process	The Assessment Delivery System must save student responses to selected-response items (both linked to common stimuli and not) upon selection by the student.
SDP-04.11	System Development Process	The Assessment Delivery System must save student responses to constructed-response items and technology-enhanced (e.g., drag/drop, graphing) items.
SDP-04.12	System Development Process	The Assessment Delivery System must allow test administrators to start, stop, pause, and resume a test session.
SDP-04.13	System Development Process	For the Smarter Balanced Interim Assessments only, the Assessment Delivery System must allow test administrators to specify a limited set (number) of questions for testing.
SDP-04.14	System Development Process	The Assessment Delivery System must allow test administrators to monitor student progress during testing, which includes but is not limited to having the ability to determine which item a student is currently working on without showing the item or student response.

#	Type	Requirement
SDP-04.15	System Development Process	The Assessment Delivery System must provide a user interface (accessible to user roles consistent with those established during joint requirement sessions) to activate and deactivate accessibility tools, supports, and accommodations. The activations/deactivations made via the user interface must be made prior to a student taking a test and must be immediately available to the student once he or she begins testing.
SDP-04.16	System Development Process	The Assessment Delivery System must retain previously saved student responses when a test is paused or restarted.
SDP-04.17	System Development Process	The Assessment Delivery System must save student responses and end a test session when there is no activity on the test for a specified period established during joint requirement sessions.
SDP-04.18	System Development Process	For the Smarter Balanced interim assessment only, the Assessment Delivery System must allow for out-of-level testing (i.e., administration of tests that are not consistent with the student's enrolled grade).
SDP-04.19	System Development Process	For the Smarter Balanced interim assessment only, the Assessment Delivery System must allow an unlimited number of interim tests to be administered to any one student.

#	Type	Requirement
SIM-05.00	System Implementation	The contractor must develop a System Implementation Plan that describes how the Assessment Technology Platform will be deployed, installed, and transitioned into an operational system. The plan shall include, at a minimum: • an overview of the hosting system; • system implementation readiness assessment methodology and schedule; • implementation schedule, including field tests and pilots; • description of the major tasks involved in the implementation; • overall resources needed to support the implementation effort, including hardware, software, facilities, materials, and personnel; • security features associated with the system when it is implemented, including security during implementation; • description of performance monitoring tools and techniques; • any site-specific implementation requirements; • description of process for validating the implementation was successful; • description of system acceptance and sign-off process.
UEP-06.00	User Experience	The Assessment Delivery System must conform to a consistent look and feel for each class of user for all components of the system, including Smarter Balanced and non-Smarter Balanced components.
UEP-06.01	User Experience	The Assessment Delivery System must display (on the workstation screen) the name of the student who is testing.
UEP-06.02	User Experience	The Assessment Technology Platform must be presented as a cohesive, single system with a single sign-on and seamless navigation. The single sign-on may be achieved by using the Smarter Balanced single sign-on or, if available, the use of a California single sign-on that can integrate with the Smarter Balanced single sign-on.
UEP-06.03	User Experience	The Assessment Delivery System must adhere to industry best practice user interface standards and use industry best practice user interface controls in accordance with the supported end-user devices (e.g., W3C, Microsoft).

#	Type	Requirement
UEP-06.04	User Experience	The Assessment Delivery System must comply with all applicable accessibility standards set forth in California Government Code Section 11135 as well as policy set forth in the CDE Web Accessibility standards located at http://www.cde.ca.gov/re/di/ws/webaccessstds.asp (excluding vendor-specific proprietary systems).
UEP-06.05	User Experience	The CDE Web-Based Systems must provide online, context-sensitive help for each class of user. The specific features requiring online help shall be identified during joint requirement sessions.
UEP-06.06	User Experience	The user interfaces (both administrators and students) of the Assessment Delivery System must be identical except for required deviations due to differences between Smarter Balanced and non-Smarter Balanced tests (e.g., skip item functionality would only be available on non-Smarter Balanced tests).
TAC-07.00	Technical Assistance Center	The contractor must provide Tier 1, 2, and 3 supports for technical issues as referenced in RFS Section 3.2.3.
TAC-07.01	Technical Assistance Center	The contractor must provide an escalation to Tier 2 and 3 support for unresolved Tier 1 issues consistent with RFS Section 3.2.3.
TAC-07.02	Technical Assistance Center	The contractor must provide a process for working with user-sponsored technical support organizations (i.e., LEA and the CDE information technology groups).
TAC-07.03	Technical Assistance Center	The contractor must provide system support ticket tracking, resolution, and reporting.

#	Type	Requirement
SRM-08.00	System Delivery Release Management	The contractor must provide a System Delivery Release Management Plan that includes, at a minimum: • scope; • roles and responsibilities; • Release Management approach and methodology; • processes and procedures for solution maintenance and upgrade as it relates to participation in, and implementation of, subsequent versions of the open-source Smarter Balanced code base, as well as proprietary modifications and independently developed components (only applicable if the Assessment Delivery System uses the Smarter Balanced open-source code); • process and procedures for communications and coordination with internal and external partners; • description of release artifacts, including release notes and reports; • inputs to Release Management; • description of release types, including maintenance and emergency releases; • processes and procedures for performing scheduled and unscheduled releases; • system outage management; • processes and procedures for performing scheduled and unscheduled releases; • release testing procedures, including regression and integration testing with CALPADS and other external partners; • production readiness procedures; • production deployment procedures; • production validation procedures; • processes and procedures for system delivery acceptance; • release rollback/back-out procedures.
SRM-08.01	System Delivery Release Management	The contractor must provide a process for scheduled and unscheduled releases.

#	Type	Requirement
SRM-08.02	System Delivery Release Management	The contractor must comply with the system delivery acceptance process as defined by the CDE for the initial, and each subsequent, system delivery release.
PER-09.00	Performance	The California Assessment Delivery System has dedicated support for 750,000 concurrent users, with expandable capacity to support over 2,000,000 concurrent users using shared services. These users are inclusive of student test takers and test administrators between the hours of 6 a.m. and 8 p.m. PT Monday through Friday.
PER-09.01	Performance	The Assessment Delivery System must provide an adequate number of concurrent Web sessions to support the number of concurrent users at any given time.
PER-09.02	Performance	The Assessment Delivery System must deliver 100% of the test questions with no more than five seconds of latency while serving a simulated peak concurrent user load as tested from a series of test devices connected to a test lab Performance testing results will be provided to the CDE annually prior to the launch of testing in January. The performance testing results will provide details on the number of concurrent users tested and associated latency with test delivery as well as meeting all the requirements in Section 3.2.B.9.
PER-09.03	Performance	The contractor must conduct performance/load/stress testing that addresses, at a minimum, the following objectives: • To verify the reliability of the application under stress. • To determine application's behavior under extreme load conditions. • To discover application bugs that occurs only under high load conditions. These can include such things as synchronization issues, race conditions, and memory leaks. • To determine the application's robustness in terms of extreme load and help application administrators to determine if the application will perform sufficiently if the current load goes well above the expected maximum.

#	Type	Requirement
PER-09.04	Performance	The Assessment Delivery System must demonstrate performance and stress requirements compliance through rigorous performance testing prior to the opening of the summative testing window.
PER-09.05	Performance	The contractor must provide a performance, load, and stress testing environment that utilizes the same code base as the production environment and is capable of simulating peak transaction and user loads as well as data creation/storage/transfer capacities.
PER-09.06	Performance	The contractor must work with the CDE during joint requirement development sessions to define performance thresholds that include, but are not limited to, network utilization, component latency/processing time, screen refresh rates, test item delivery latency, and test answer submission latency.
PER-09.07	Performance	The contractor must conduct performance/load/stress testing that identifies, at a minimum: • the hardware and/or the system's configurations/communication bottlenecks and their causes; • application's response times; • application's throughput; • maximum concurrent users that application can bear in a system; • resource (e.g., CPU, RAM, network I/O, and disk I/O) utilizations that application consumes during the test; • behavior of the system under various workload types including normal load and peak load; • at what parameter levels beyond the minimum the system performance degrades below acceptable performance thresholds; • symptoms and causes of application failure under stress conditions; • weak points in the application (e.g., an increase in the number of users, amount of data, or application activity might cause an increase in stress).

#	Type	Requirement
PER-09.08	Performance	The contractor must instrument and monitor the production hosted and delivered system to ensure the production implementation remains compliant with performance requirements and service level agreements.
PER-09.09	Performance	The Assessment Delivery System will comply with the interoperability standards in terms of performance/capacity and written confirmation of complete compliance. Confirmation will be provided to the CDE yearly prior to January's summative testing window
PER-09.10	Performance	The contractor must provide a process for monitoring and reporting production system performance, the specifics of which will be determined through joint requirement sessions.
PER-09.11	Performance	The contractor must provide production system health reporting capabilities that include, but are not limited to, the ability for the CDE to monitor in real-time, or through reports, the number of test takers, number of in-progress tests (interim and summative counts), number of administrative users, and other technical system health and use parameters to be determined through joint requirement sessions.
PER-09.12	Performance	The contractor must obtain a network peering agreement (or functionally similar agreement) with the K12HSN to enable efficient routing of messages.
PER-09.13	Performance	The Assessment Delivery System must maintain an availability rate of 99.9 percent during summative testing as defined by California *Education Code*, and availability rate of 99 percent outside of the summative testing window, exclusive of the California school holidays, planned system release outages, and approved maintenance windows. The availability rate will be calculated between the hours of 6 a.m. and 6 p.m. PT Monday through Friday.

#	Type	Requirement
DRC-10.00	Disaster Recovery and Business Continuity	A disaster recovery results from a catastrophic impairment of a facility. A disaster will be declared as soon as reasonable expectation indicates the disrupted processes and/or facility will not be able to resume near normal operation within an acceptable time period. If a disaster occurs and systems/infrastructure are offline, they will be recovered at an alternate location based on business-defined RTO (Recovery Time Objectives). Once systems are up and running at the alternate facility, systems will be subject to normal processing SLAs. Unless there is specific agreement to the contrary, the RTO will be defined by the recovery tiers.
DRC-10.01	Disaster Recovery and Business Continuity	The Assessment Delivery System must be at a Tier 3 data center. A Tier 3 data center is defined as a facility consisting of multiple active power and cooling distribution paths; however, only one path is active. Post disaster recovery, the facility has redundant components and is concurrently maintainable providing 99.982% availability.
DRC-10.02	Disaster Recovery and Business Continuity	The Assessment Delivery System must provide sufficient information on student progress or state of the application with sufficient detail necessary for system recovery, including saving the state of partially completed answers to multi-part items.
DRC-10.03	Disaster Recovery and Business Continuity	The Assessment Delivery System must have the ability to recover from end-user device failure while minimizing the loss of information, progress, and state.
DRC-10.04	Disaster Recovery and Business Continuity	The Assessment Delivery System must have the ability to recover from network failure while minimizing the loss of information, progress, and state.
DRC-10.05	Disaster Recovery and Business Continuity	The Assessment Delivery System must have the ability to recover from a Web server/application server/database server failure while minimizing the loss of information, progress, and state.
DRC-10.06	Disaster Recovery and Business Continuity	The Assessment Delivery System must ensure the maintenance of test integrity during outage events that occur while test administration is in process.

#	Type	Requirement
DRC-10.07	Disaster Recovery and Business Continuity	The Assessment Delivery System must have robust data backup and recovery process and architecture that adhere to industry best practices.
DRC-10.08	Disaster Recovery and Business Continuity	The contractor must provide a Disaster Recovery and Business Continuity Plan that provides for the Assessment Delivery System to stay functional in a disastrous state. The plan must include, at a minimum: • Scope • Approach and methodology • Roles and responsibilities • Backup and restore strategies and policies for data, database, and code • Business continuity planning activities • Disaster recovery process, procedures, and timeframes • Ongoing testing, updates, and maintenance of the plan
DRD-11.00	Data Policy Retention and Destruction	The Assessment Delivery Component must securely store and transmit student-level data in accordance with the requirements of the SAM Section 5305.8 for highly sensitive data. Data must be accessed only by authorized personnel and securely destroyed after the termination of the contract.
DRD-11.01	Data Policy Retention and Destruction	The contractor must adhere to the Department of Education Administrative Manual (DEAM), sections 10120, 10600, and 10601 with regards to data security, retention, and destruction.
DRD-11.02	Data Policy Retention and Destruction	The contractor must adhere to EC 60607 and to the Family Educational Rights and Privacy Act (FERPA) of 1974 , Section 1232g in Part 4 of Title 20 of the Code of Federal Regulations (20 C.F.R. § 1232g) with regard to the access and destruction of PII information and/or confidential data.

#	Type	Requirement
MAO-12.00	Maintenance and Operation	The contractor must develop a maintenance and operation plan that describes, at a minimum: • process for system maintenance and upgrades (e.g., implementation of subsequent versions of the open-source Smarter Balanced code base; implementation of proprietary modifications and independently developed components); • process for scheduled and unscheduled releases; • process for release testing and coordination; • release notes, communications, and coordination processes.

Appendix D—Summary of Embedded Universal Tools, Designated Supports, and Accommodations Supported by the CAASPP 2018–19 through 2021–22 Test Delivery System

The following table includes examples of embedded universal tools, designated supports, and accommodations (see gray boxes) that the Assessment Delivery System (ADS) supports for the CAASPP assessments which are administered during the 2017–18 administration. ETS will use the 2017–18 administration as the basis for the 2018–19 administration and assumes the Universal Tools, Designated Supports, and Accommodations will be reviewed and updated annually to be consistent with the California testing regulations.

- **Universal tools** are available to *all* students on the basis of student preference and selection.

- **Designated supports** are available to *all* students when determined for use by an educator or team of educators (with parent/guardian and student input, as appropriate) or specified in the student's individualized education program (IEP) or Section 504 plan.

- **Accommodations** must be permitted on CAASPP tests to all eligible students if specified in the student's IEP or Section 504 plan.

The current accessibility supports are listed on the CDE 2018–19 California Student Assessment Accessibility web page at http://www.cde.ca.gov/ta/tg/ca/accesssupport.asp. The latest version of the approved accessibilities and supports is available on the CDE CAASPP web page (http://www.cde.ca.gov/ta/tg/ai/caasppmatrix1.asp).

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[1] The accessibility resources listed here are for the 2018 CAST Field Test and 2017 CSA Pilot Tests only.

Part 1. Embedded Resources

Embedded resources are digitally delivered **universal tools (U), designated supports (D), or accommodations (A**) available as part of the technology platform for the computer-administered CAASPP tests. Embedded resources do not change or alter the construct being measured. The table below shows the available embedded resources for the following CAASPP tests: Smarter Balanced and CAA ELA and mathematics; 2018 Field Test for California Science Test (CAST) (there are no embedded resources for the CAA for Science Pilot 2 Test); and the 2017 Pilot Test for California Spanish Assessment (CSA).

Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
American Sign Language[2]	n/a	n/a	A	A	A	n/a
Audio Transcript* (includes braille transcript)	n/a	n/a	A	n/a	A	n/a
Braille[2]	A	A	A	A	A	n/a
Breaks	U	U	U	U	U	U
Calculator	n/a	n/a	n/a	U (grades 6–8 and grade 11; for specific items)	U (four-function calculator for grade 5 and a scientific calculator for grade 8 and high school)	n/a
Closed captioning[2]	n/a	n/a	A	n/a	A	n/a
Color contrast	D	D	D	D	D	n/a
Digital notepad	U	U	U	U	U	U

Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
English dictionary	n/a	U (for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	n/a
English glossary	U	U	U	U	U	n/a
Expandable items	U	U	U	U	U	U
Expandable passages	U	U	U	U	U	U
Global notes	n/a	U (for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	n/a
Highlighter	U	U	U	U	U	U
Keyboard navigation	U	U	U	U	U	U
Line reader*	U	U	U	U	U	U
Mark for review	U	U	U	U	U	U

Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Masking	D	D	D	D	D	n/a
Math tools (i.e., embedded ruler, embedded protractor)	n/a	n/a	n/a	U (for specific items)	U	n/a
Mouse pointer* (size and color)	D	D	D	D	D	n/a
Science charts (i.e., calendar, Periodic Table of the Elements, conversion charts)	n/a	n/a	n/a	n/a	U	n/a
Science tools (i.e., analog clock, laboratory equipment)	n/a	n/a	n/a	n/a	U	n/a
Spell check	n/a	U	n/a	n/a	n/a	n/a
Streamline	A	A	A	A	A	n/a
Strikethrough	U	U	U	U	U	U
Text-to-speech[2]	D (for ELA items, not passages) A (for ELA reading passages)	D	D	D	D	n/a

Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Thesaurus*	n/a	U (for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	n/a
Translated test directions[2]	n/a	n/a	n/a	D (w/ Spanish stacked translation only)	n/a	n/a
Translations[2] (glossary)	n/a	n/a	n/a	D	D	n/a
Translations[2] (Spanish stacked)	n/a	n/a	n/a	D	D	n/a
Turn off any universal tool	D	D	D	D	D	D
Writing tools for student-generated responses (i.e., bold, italic, bullets, undo/redo)	U (for specific items)	U (for specific items)	U (for specific items)	U (for specific items)	U	U (for specific items)
Zoom (in/out)	U	U	U	U	U	U

Part 2. Non-Embedded Resources

Non-embedded resources are universal tools (U), designated supports (D), or accommodations (A) available, when provided by the local educational agency (LEA), for either computer-administered or paper-pencil CAASPP tests. These supports are not part of the technology platform for the computer-administered CAASPP tests and do not change or alter the construct being measured. The table below shows the available non-embedded resources for the following CAASPP tests: Smarter Balanced and CAA ELA and mathematics; 2018 Field Test for CAST; and the 2017 Pilot Test for CSA. For the CAA Science Pilot 2 Test, due to the design, any instructional supports used in daily instruction may be used for the embedded performance tasks.

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
100s number table	n/a	n/a	n/a	A (beginning in grade 4)	D	n/a
Abacus	n/a	n/a	n/a	A	A	n/a
Alternate response options (i.e., adapted keyboards, large keyboards, StickyKeys, MouseKeys, FilterKeys, adapted mouse, touch screen, head wand, and switches)	A	A	A	A	A	n/a
American Sign Language	n/a	n/a	n/a	n/a	n/a	n/a
Amplification*	D	D	D	D	D	n/a

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Bilingual dictionary	n/a	D (for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	n/a
Braille (paper-pencil tests)	A	A	A	A	n/a	n/a
Breaks	U	U	U	U	U	U
Calculator	n/a	n/a	n/a	A (for allowed items, grades 6–8 and grade 11)	D (four-function calculator for grade 5; scientific calculator for grade 8 and high school)	n/a
Color contrast	D	D	D	D	D	D
Color overlay	D	D	D	D	D	D

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
English dictionary	n/a	U (for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	n/a
Large-print versions of a paper-pencil test (as available)	A	A	A	A	n/a	n/a
Magnification	D	D	D	D	D	D
Multiplication table	n/a	n/a	n/a	A (beginning in grade 4)	D	n/a
Noise buffers (e.g., individual carrel or study enclosure or noise-cancelling headphones)	D	D	D	D	D	D
Print on demand (To set, email caltac@ets.org.)	A	A	A	A	A	A

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Read aloud	D (for items, not passages) A (for ELA reading passages)	D	D	D	D	D
Science charts (State-approved only; i.e., calendar, Periodic Table of the Elements, conversion charts.)	n/a	n/a	n/a	n/a	D	n/a
Scratch paper (blank, lined, graph, white board, electronic assistive devices without Internet as allowed)	U	U	U	U	U	U
Scribe	D	A	D	D	D	D
Separate setting (i.e., most beneficial time, special lighting or acoustics, adaptive furniture)	D	D	D	D	D	D

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Simplified test directions	D	D	D	D	D	n/a
Spanish dictionary	n/a	n/a	n/a	n/a	n/a	U
Speech-to-text	A	A	A	A	A	n/a
Thesaurus	n/a	U (in English for ELA full write performance tasks, not short paragraph responses)	n/a	n/a	n/a	U (in Spanish)
Translated test directions	D (Consortium-provided PDFs for online test)	D (Consortium-provided PDFs for online test)	D (Consortium-provided PDFs for online test)	D (Consortium-provided PDFs for online test)	D	n/a

Non-Embedded Resource	ELA – Reading	ELA – Writing	ELA – Listening	Mathematics	2018 CAST Field Test[1]	2017 CSA Pilot Test[1]
Translations (glossary)	n/a	n/a	n/a	D (Consortium-provided PDFs for paper-pencil tests only)	n/a	n/a
Word prediction*	A	A	A	A	A	n/a

Unlisted Resources

The LEA CAASPP coordinator or CAASPP test site coordinator may submit a request through the Test Operations Management System (TOMS) for an unlisted resource. Requests must be received at least ten business days before the student's first day of CAASPP testing (not applicable for the 2017 CSA Pilot Test).

Appendix E—Glossary of Terms

Term	Description
AAF	Accessibility and Alternate Formats, a group within ETS which develops and delivers items that are accessible to the greatest number of students possible.
Accessibility Requirements	Accessibility requirements as referenced in Task 5 in the SOW are defined as: • Federal and state accessibility technical standards, as defined by Section 508, and based on the W3C Web Content Accessibility Guidelines 2.0 at the AA conformance level (WCAG2 AA) • Accessible design best practice for digital content and assessments, including Universal Design for Learning principles • Compatibility with assistive technologies, including screen reading software and refreshable braille displays, screen magnification software, read aloud software, and alternative input devices
Administration Year for CAASPP	The administration year, in the context of this contract, refers to the period in which LEAs administer the CAASPP assessments. Generally, that period is August through July. The individual tests will be available according to the CAASPP testing regulations: • Smarter Balanced Interim Assessments—year round • CAA for Science—beginning on a date in September as determined by the CDE through July 15 or the next weekday following the 15th if the 15th is not a weekday. • Smarter Balanced Summative Assessments, CAST, CSA, CAA for ELA and Mathematics—beginning second Tuesday in January of each year through July 15 or the next weekday following the 15th if the 15th is not a weekday. LEAs must select a testing window that is appropriate for their schools and within the availability of the CAASPP tests.

Term	Description
Administration Year for ELPAC	The administration year, in the context of this contract, refers to the period in which LEAs administer the ELPAC assessments. The statewide test administration period is July through June.
AELPA	Alternate English Language Proficiency Assessments. Term changed to "Alternate ELPAC" after CDE revision.
AERA	American Educational Research Association
Agreement	See MOU.
AI scoring	Artificial intelligence scoring (also may be referred to as automated scoring) AI scoring uses a scoring engine (software) to evaluate responses to tasks that require test takers to write essays, fill in the blank, write mathematics equations, or give oral responses. See Task 8.
AIR	American Institutes for Research (AIR), an ETS subcontractor.
AIR-ITS	AIR's proprietary Item Tracking System
ALD	Achievement level descriptors. See Task 6.
Alternate Assessments	See CAA.
Alternate ELPAC	Alternate English Language Proficiency Assessment for California The Alternate ELPAC are individually administered to English learners who have an individualized education program that indicates the use of an alternate assessment on statewide assessments. The Alternate ELPAC includes two tests: Initial Alternate ELPAC and Summative Alternate ELPAC. The Initial Alternate ELPAC is administered year round as needed from July through June. The Summative Alternate ELPAC is administered from February through May, as required by the ELPAC testing regulations.

Term	Description
Answer document, answer book, answer sheet	Answer document, answer book, and answer sheet are terms used to describe a document that is used by test takers to enter their responses to test questions. Answer books may be multi-page documents include the test questions and the response sections. Answer sheets are usually 1-2 pages on a physical page that typically includes the response sections. The terms may be used interchangeably with "answer document" as the most generic term. Answer documents are consumable in that they can only be used one time by the test taker. For the purposes of this contract, the ELPAC materials are referred to as "Answer Books" and the CAASPP materials are referred to as "Answer Documents."
APA	American Psychological Association
APH	American Printing House for the Blind
API	Application Programming Interface
APIP	Accessible Portable Item Protocol
ART	Administration and Registration Tool ART is used to provide user (i.e., LEA staff) access to the Digital Library and to the California Educator Reporting System (CERS) where Interim Assessment student test results reside.
ATF	Alternate Test Formats; see AAF.
AWS	Amazon Web Services AWS is the secure cloud-based service platform. AWS will be used to host the electronic student score reports.
BMIRT	Bayesian Multivariate Item Response Theory, a software program
BOM	Bill of Materials

Term	Description
CAAs	California Alternate Assessments (CAA) Content areas assessed by CAA include English-Language Arts, mathematics, and science (beginning 2016–17). The CAAs are individually administered to students who have an individualized education program that indicates the use of an alternate assessment on statewide assessments. All eligible students are required to participate in these online assessments. The CAAs for ELA and mathematics in grades three through eight and grade 11. The CAAs for Science will be administered to eligible students in grades five and eight and high school (grades 10, 11, or 12). Formerly referred to as the Alternate Assessments. CAA for Science replaced CAPA for Science.
CAASPP	The assessments that include: Smarter Balanced Interim Assessment, Smarter Balanced Summative Assessments, CAAs (ELA, mathematics, and science), CAST, and CSA.
California Assessments	The general term that refers to the collection of CAASPP and ELPAC assessments under this contract. The assessments include: Smarter Balanced Interim Assessment, Smarter Balanced Summative Assessments, CAAs (ELA, mathematics, and science), CAST, CSA, ELPAC, and Alternate ELPAC CBA.
California Assessment Delivery System	The general term that refers to the technology services and applications developed and hosted specifically by ETS and its subcontractors and is part of the California Assessment Technology Platform.
California Assessment Technology Platform	The general term that refers to the collection of technology services and applications developed and hosted by the CDE, ETS and its subcontractors and vendors, Smarter Balanced that work together to administer and report on the California Assessment System. The California Assessment Technology Platform includes the California Assessment Delivery System, which is the system used to administer the test.

Term	Description
California Educator Reporting System (CERS)	The online reporting system developed for educators by Smarter Balanced for the CDE through an interagency memorandum of understanding (MOU). The CERS will replace AIR ORS during the life of the contract. The CERS will be based on the Smarter Balanced Interim Assessment Reporting System which has been in use by California since September 2017. When CERS is implemented by Smarter Balanced, the results for the following assessments will be reported in CERS: Smarter Balanced Interim Assessments, Smarter Balanced Summative Assessments, CAAs (ELA, mathematics, and science), CAST, CSA, ELPAC, and Alternate ELPAC CBA. See also ORS.
CALPADS	California Longitudinal Pupil Achievement Data System A longitudinal data system owned and operated by CDE and used to maintain individual-level data including student demographics, course data, discipline, assessments, staff assignments, and other data for state and federal reporting. CALPADS is the database of record for the school and LEA organization and for student demographic data used in CAASPP. See Task 3. (Source: http://www.cde.ca.gov/ds/sp/cl/)
CalTAC	California Technical Assistance Center CalTAC serves as the Tier 1 help desk for LEA Testing Coordinators. See Task 2.
CalTech	California Office of Technology
CA ELD Standards	California English Language Development Standards
CA NGSS	Next Generation Science Standards for California (CA NGSS). See CAST.
CA NGSS Alternate	California Alternate Assessments for Science (CAA for Science)—formerly known as CA NGSS Alternate
CA-PMF	California Project Management Framework—formerly the California Project Management Methodology (CA-PMM)
CASEMIS	California Special Education Management Information System

Term	Description
CAST	California Science Tests Based on the Next Generation Science Standards for California (CA NGSS), these tests are administered online to all students in grades five and eight and high school (grades 10, 11, or 12). Formerly referred to as the CA NGSS assessments.
CAT	Computer adaptive test The computer adaptive testing engine uses a student's answers to find the appropriate level of difficulty for the student to answer subsequent questions. For every claim assessed on the test, questions are available that are very easy, easy, medium, hard, and very hard. Students who are able to correctly answer more difficult questions move up the difficulty scale more quickly. Students who answer incorrectly are given easier questions and move down the difficulty scale to accommodate their learning. Strong foundational skills make a critical difference in building student confidence to answer challenging questions. (Source: http://www.cde.ca.gov/ta/tg/ca/sbteacherguides.asp)
CBT or CBA	Computer-based tests, computer-based assessment, or computer-based administration. See Task 7.
CCCs	Cross Cutting Concepts
CCSS	California Common Core State Standards
CCSS en Español	California Common Core State Standards en Español
CCSSO	Council of Chief State School Officers
CDS	County-District-School
CIMS	California Identity Management System Through the CIMS, users will be able to seamlessly navigate between various modules of the Assessment Delivery System and also will be able to navigate to CDE-authorized third-party systems such as the Smarter Balanced Digital Library and the California Educator Reporting System.

Term	Description
CMA for Science	California Modified Assessments for Science CMA for Science were based on the previous California science content standards. The CMA for Science were individually administered to students who have an individualized education program that indicates the use of an alternate assessment on statewide assessments. All eligible students in grades five, eight, and 10 were required to participate in these online assessments. The last administration of these assessments was the 2015-16 administration.
Connectors	Core Content Connectors
Consumable Test Books	"Consumable" refers to the fact that these are scannable documents and can be used only one time. (See also Reusable Test Books and Answer Documents.)
Contract	Overall document that defines the scope of work, terms and conditions, and budget to support the administration and reporting of the California Assessment System.
CR	Constructed-Response CR items prompt students to write a short written or numerical response. CR items may be hand scored or machine scored. (Source: https://www.cde.ca.gov/ta/tg/ca/parentguidetounderstand.asp)
CSA	California Spanish Assessments The CSA will assess reading, writing, and listening in Spanish, and will be aligned with the California Common Core State Standards en Español, which will include linguistic augmentations specific to the Spanish language. LEAs may voluntarily administer these tests to students in grades three through eight and high school. Formerly referred to as the primary language assessment in Spanish.
CSC	Computer Sciences Corporation. See DXC Technology.
CSEM	Conditional standard errors of measurement
CSRs	Customer Support Representative

Term	Description
CST for Science	California Standards Tests for Science CST for Science were based on the previous California science content standards. All eligible students in grades five, eight, and 10 were required to participate in these online assessments. The last administration of these assessments was be the 2015-16 administration.
DCIs	Disciplinary Core Ideas
DEAM	Department of Education Administration Manual
DEI	Data Entry Interface
Deliverable	Deliverables are specifically identified in the SOW as the product of a task or requirement. See Task 1.
Dev-to-dev	The dev-to-dev test involves each of the application areas passing interface test data through all connecting systems, to ensure data can be processed correctly by all the systems. The dev-to-dev test follows the unit testing done by each application area, and occurs prior to the full Software Test cycle.
DFA	Directions for Administration
DIF	Differential item functioning
DOF	California Department of Finance
DoR	Database of Record, maintains the authoritative record of tests administered and completed.
DR/BC	Disaster Recovery and Business Continuity. Also referred to separately as "DR" and "BC."
DXC Technology	Formerly named CSC in the previous contract.
EBAE	English Braille American Edition
ECCR	External Client-Committee-Outside Reviewers

Term	Description
Educator Review Meeting	An educator review meeting is a process by which California educators (teachers, administrators, resources specialist, etc.) provides direct input and recommendations to a component of the California Assessment System. While ETS provides some training to the meeting participants that may have professional benefits for the participants outside of the meeting, the purpose of the training is to provide a common understanding to facilitate the reviews and discussions about the main meeting topic. Examples of educator review meetings includes new item review meetings, data review meetings, standard setting meetings. (See also Workshops.)
EL	English learner. Formerly English Language Learner (ELL).
ELA	English-language arts or English-language arts/literacy
ELAS	English Language Acquisition Status
ELD	English Language Development
ELP	English Language Proficiency
ELPAC	English Language Proficiency Assessment for California ELPAC includes two tests: Initial ELPAC and Summative ELPAC. The Initial ELPAC is administered year round as needed from July through June. The Summative ELPAC is administered from February through May, as required by the ELPAC testing regulations.
EM	Examiner's Manual
ETS	Educational Testing Service
EUs	Essential Understandings
FAQs	Frequently asked questions
FERPA	Family Educational Rights and Privacy Act
FIPS	Federal Information Processing Standard
FISMA	Federal Information Security Management ACT
FKSAs	Focal Knowledge, Skills, and Abilities

Term	Description
FT	Field test FTs serve as "tests of the tests," allowing experts to gauge the accuracy and reliability of individual test items before finalizing the assessments for full-scale use. As such, no FT scores will be produced or reported. (Source: https://www.cde.ca.gov)
Gatekeeper Process	The standard deliverable review process which ETS will use for planning purposes.
HLTD	High Level Test Design. See Task 6.1.
IABs	Interim Assessment Blocks
IAHSS	Interim Assessment Hand Scoring System. See THSS.
IBIS	ETS's proprietary Item Banking Information System
ICAs	Interim Comprehensive Assessments
IDP	Item Development Plan
IdP	Identity Provider An IdP is an online service provider that authenticates users.
IEP	Individualized education program
IESA	Inter-Enterprise Security Assessment
IFEP	Initial Fluent English Proficient
IMS	Information Management System
Instructional Year	See School Year.
In-Touch	In-Touch Insight Systems, a subcontractor to ETS
IPO	Information Protection Office
IPOC	Independent project oversight consultant
IRP	Implementation Readiness Package
IRR	Inter-rater reliability

Term	Description
IRT	Item Response Theory. See Task 6.2.C.
ISAAP	Individual Student Assessment Accessibility Profile; ETS will support the California version of this tool. See Task 2.5.
ISMS	Information Security Management System
ISO	International Organization for Standardization
IT	Information Technology
IV&V	Independent verification and validation consultant
JAWS	Job Access with Speech. JAWS is a computer screen reader program.
K12HSN	The K–12 High Speed Network
LEA	Local educational agency
LMS	Learning management system
LST	Local Scoring Tool. See Task 7.2.C.3.
MI	Measurement Incorporated, a subcontractor for ETS
MLE	Maximum likelihood estimation, the approach through which ETS bases all scaled scored for the Smarter Balanced assessments.
MOU	Memorandum of Understanding. Upon review with the CDE, term changed to "Agreement."
MPP	Microsoft Project Plan
MST	Multistage Adaptive Test
NCME	National Council on Measurement in Education
NCSC	National Center and State Collaborative
NGSS	Next General Science Standards (national version)
NIST	National Institute of Standards and Technology

Term	Description
NLP	Natural Language Processing. A branch of AI that involves how computers handle interactions with human language, specifically in regards to understanding, interpret, and manipulating human language.[6]
Non-Smarter Balanced Assessments	The non-Smarter Balanced Assessments include: CAA for ELA and Mathematics, CAA for Science, CAST, CSA, Initial ELPAC (paper and CBA), Summative ELPAC (paper and CBA, Initial Alternate ELPAC CBA, and Summative Alternate ELPAC CBA. See also Smarter Balanced Assessments.
Open-source TDS	Open-source Test Delivery System The Smarter Balanced Assessment Consortium released the open-source TDS for public use and updates. Currently, CDE does not use the open-source TDS.
ORR	Operational Readiness Review Also referred to as the system implementation readiness assessments.
ORS	Online Reporting System ORS, or AIR ORS, is a proprietary online reporting system owned by AIR, an ETS subcontractor, for CAASPP. Authorized users use ORS to access CAASPP summative assessment test results. Assessments reported in ORS include the Smarter Balanced Summative Assessments, CAAs for ELA and mathematics, STS (2015–16 and 2016–17), and CST/CMA/CAPA for Science. AIR ORS will not be used to report ELPAC or Alternate ELPAC CBA results. See Task 9. See also California Educator Reporting System.
OSC	Oracle Service Cloud
OWASP	Open Web Application Security Project
p values	A term used in item analyses, "p values" refers to item difficulty.
PBT or PPT	Paper-based tests or Paper-pencil tests. See Task 7.

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[6] https://www.sas.com/en_us/insights/analytics/what-is-natural-language-processing-nlp.html

Term	Description
PCI DSS	Payment Card Industry Data Security Standard
PGE	Parent Guardian Exemptions
PLD	Performance Level Descriptor
PMP	Project Management Plan
PPV	Post-production validation
Practice Test	The Practice Tests provide students with grade-specific testing experiences that are similar in structure and format to the Summative Assessments. See Task 6. (Source: http://www.cde.ca.gov/ta/tg/ca/)
Primary Language Assessment	See CSA.
PT	Pacific Time
PT	Performance Task PTs are a complex set of tasks in which students engage to demonstrate their understanding. For example, students may be asked to conduct research and then write an argumentative essay, using sources as evidence. Or they may be asked to solve a complex problem in mathematics. PTs integrate knowledge and skills across many areas and standards. (Source: https://www.cde.ca.gov/ta/tg/ca/parentguidetounderstand.asp)
Public Web Reporting	The public Web reporting site provides CAASPP test results at the aggregate level. See Task 9 and http://caaspp.cde.ca.gov/.
QC	Quality control
QM	Quality Monitor, checks for scoring anomalies in the scoring system.
QTI	The IMS Question and Test Interoperability (QTI) specification.
RDR	Red Dog Records, a subcontractor to ETS
REST	Representational State Transfer

Term	Description
Reusable Test Books	Reusable test books may be used multiple times to administer tests to different students. Reusable test books contain secure materials. (See also Consumable Test Books and Answer Documents.)
Review Item	Materials that required CDE review and approval through the Gatekeeper process but are not identified in the SOW as a deliverable. Examples of Review Items include, but are not limited to, email communications to the LEAs, memorandums to document decisions, and presentations or white papers to document contract activities. Because time is of the essence with the content of some of the Review Items, ETS and the CDE will collaborate on the agreed upon timeline for each Review Item. Therefore, a Review Item could have a shorter CDE review timeline than a Deliverable. See Task 1.
RFS	Request for Submission
RLA	Reading/language arts
RM	Release Management
RSVP	Rotating Score Validation Process. See Task 7.2.C.3.
RTM	Requirements traceability matrix. See Task 3.
RTO	Recovery Time Objectives
RTQs	Released Test Questions. See Task 6.
SAE18	Standards for Attestation Engagements No. 18
SAM	California State Administrative Manual
SAP	Summarize an Academic Presentation, audio files which will be available for the 2018–19 Summative ELPAC administration. See Task 7.2.B.
SAS	Statistical Analysis System®
SBE	State Board of Education

Term	Description
School Year	Also referred to as Instructional Year. The school year is defined by California *Education Code* "as not less than 175 days during the fiscal year and for not less than the minimum school day established by or pursuant to law" [5 CCR § 2].
SCOE	Sacramento County Office of Education, a subcontractor for ETS
SDLC	Software Development Life Cycle. The ETS SDLC process is a combination of waterfall and agile software development processes. See Task 3.
Secure Browser	The secure browser prevents students from accessing other computer or Internet applications or copying test information. All computers that will be used for testing must have the correct secure browser installed.
Selected-response items	Selected-response items prompt students to choose one or more answers. (Source: https://www.cde.ca.gov/ta/tg/ca/parentguidetounderstand.asp)
SEPs	Science and Engineering Practices
SFTP	Secure File Transfer Protocol
SIF	Standard Interchange Format
SIMM	State Information Management Manual

Term	Description
Single Sign-on	Single sign-on refers to the application or process that authorized users must use to log into one or more systems. For the 2018–19 administration, dual logins are required to access the various assessments systems (i.e., CAASPP, ELPAC and Smarter Balanced) and the components with these systems. In order to administer the summative and interim assessments and access the formative assessment resources, teachers and administrators need access to both systems. Beginning with the 2019–20 administration, ETS will implement and host the California Identity Management System (CIMS) that allows for numerous user roles and permissions based on the functions that each user must perform in order to complete their responsibilities for the California Assessment System. Through the CIMS users will be able to seamlessly navigate between various modules of the Assessment Delivery System and also will be able to navigate to CDE-authorized third-party systems such as the Smarter Balanced Digital Library and the California Educator Reporting System. See Task 3. (Source: http://www.cde.ca.gov/ta/tg/ca/)
SIS	Student Information System. See Task 2.4.
SLA	Service level agreement. Agreement that defines the level of service expected from the service provider and performance measures. See Task 1.7.
Smarter Balanced Assessments	The Smarter Balanced Assessments specifically include the Smarter Balanced Interim Assessments and the Smarter Balanced Summative Assessments. See also Non-Smarter Balanced Assessments.
Smarter Balanced Digital Library (DL)	The Smarter Balanced Digital Library consists of tools (e.g., assessment literacy and other resources, professional learning resources, and playlists) and instructional practices designed to help teachers utilize formative assessment processes for improved teaching and learning in all grades. These optional resources are available to all K–12 teachers in public schools. See Task 2.8.

Term	Description
Smarter Balanced Interim Assessments (IA)	The interim assessments are aligned with the Common Core State Standards (CCSS) for ELA and mathematics. They are specifically designed to provide meaningful information for gauging student progress throughout the year toward mastery of the skills measured by the summative assessments. The interim assessments may be administered to students in kindergarten through grade 12. These tests are administered online. See Task 2.8 and Task 8.
Smarter Balanced Summative Assessments	The Smarter Balanced Summative Assessments are comprehensive end-of-year assessments in ELA and mathematics that are aligned with the Common Core State Standards (CCSS) for ELA and mathematics and measure progress toward college and career readiness. The summative assessments are administered to students in grades three through eight and grade 11. These tests are administered online.
SOW	Scope of work
SR	Selected Response. See selected-response items.
SSID	Statewide Student Identifier
SSL	Secure socket layer encryption
SSR	Student Score Report The SSR presents test results in a format approved by the SBE for parents/guardians. SSRs are provided in electronic (PDF) and paper versions to LEAs, who are responsible for delivering the SSRs to their students' parents/guardians. See Task 9.
Stacked Translation	When selected as a designated support, Stacked Translation provides the assessment item in both Spanish and English directly in the Secure Browser. It is only available for the Smarter Balanced mathematics items and will be available for CAST.
STAIRS	Security and Test Administration Incident Reporting System
TAG	Technical Advisory Group The CDE maintains two TAGS: the CAASPP TAG and the ELPAC TAG.

Term	Description
TAM	Test Administration Manual
Target Reports	Target Reports are a new resource for administrators and teachers. These reports show the relative performance of groups of students on assessment targets within a claim area. The reports show how a group of students performed on a target compared to the overall performance on the test. ELA is intended to be learned as an integrated content area. Using the formative assessment process, specific evidence for each target may be collected in multiple parts of an integrated task. By reflecting on students' time-on-task and their opportunities for mastery throughout the year in each target area, teachers are able to compare the intended learning of groups of students with the evidence of learning on the Smarter Balanced assessments. (Source: http://www.cde.ca.gov/ta/tg/ca/sbteacherguides.asp)
TCC	Test characteristic curve, a method which ETS bases all scaled scores for the CAA for ELA and mathematics, CAST, and Initial and Summative ELPAC assessments.
TDS	A Test Delivery System is used by students to take computer-based assessments. The AIR TDS is a proprietary system owned by the American Institutes for Research (AIR), an ETS subcontractor, for this contract. Authorized users use the TDS to set up and manage test sessions. Students use the TDS for the California Assessment System. See Tasks 3 and 8.
TEI	Technology-enhanced item TEIs prompt students to edit text or draw an object. (Source: https://www.cde.ca.gov/ta/tg/ca/parentguidetounderstand.asp)
THSS	Teacher Hand Scoring System The THSS will be used by teachers locally to score performance tasks or constructed-response items administered for the Smarter Balanced Interim Assessment and the Initial ELPAC.

Term	Description
TIS	Test integration system The TIS is an open-source application developed by Smarter Balanced to manage test data to and from the systems maintained by Smarter Balanced. See the Smarter Balanced applications site: https://github.com/SmarterApp/TDS_TestIntegrationSystem/blob/master/README.md.
TOMS	Test Operations Management System TOMS is a proprietary system owned by ETS and is used to manage test administration settings such as test administration windows, user roles, student test registration, and test settings. TOMS also can be used to access test results. See Task 3.
Training Test	The Training Tests provide students with the opportunity to quickly become familiar with the software and interface features. The Training Tests are organized by grade bands (e.g., 3–5). See Task 6. (Source: http://www.cde.ca.gov/ta/tg/ca/)
TRT	Test Results Transmission The TRT is the format required by Smarter Balanced to receive CAASPP and ELPAC assessment data for inclusion in the Smarter Balanced Data Warehouse for subsequent reporting into the California Educator Reporting System.
TTS	Text-to-Speech, also known as "read aloud"
UAT	User acceptance testing. See Task 2.4 and Task 3.
UEB	Unified English Braille
UI	User Interface
UIN	Unique identification number
URL	Uniform Resource Locator
W3C®	World Wide Web Consortium
WCAG	Web Content Accessibility Guides

Term	Description
WebART	Web Application Review Team
WER	Writing Extended Response (e.g., essay)
WestEd	A subcontractor to ETS
Workshop	A workshop is the process by which training is provided to participants related to a component of the California Assessment System in order to support test administration activities, local scoring activities, and appropriate uses of the assessment data. Workshops are not designed to collect input from the participants except for evaluation surveys to improve future workshops. Examples of workshops include Pre-test and Post-test training, scoring training, item writer workshops, and Summer Institutes. (See also Educator Review Meeting).