

California Department of Education

Executive Office

SBE-003 (REV. 11/2017)

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California State Board of Education  
**September 2020 Agenda**  
**Item #02**

## Subject

Update on the Implementation of the Integrated Local, State, and Federal Accountability and Continuous Improvement System: Recommended Action on the Inclusion of New Career Measures in the College/Career Indicator and Update on the Student Growth Model, and Implementation of California *Education Code* Section 52064.5.

## Type of Action

Action, Information

## Summary of the Issue(s)

In May 2020, the California Department of Education (CDE) presented its progress on improving and expanding the measures used to determine the progress made by schools and local educational agencies (LEAs) in serving their students, as reported on the California School Dashboard (the Dashboard) in the College/Career Indicator (CCI). The update included data on additional career measures collected in 2018–19 for inclusion in CCI. This item provides additional data and analysis on these measures, including stakeholder feedback, and recommendations for State Board of Education (SBE) action.

This item is before the SBE for action in order to allow the CDE to report out on these new career measures publicly this fall. While this information will not be used to determine a color performance on the Dashboard, the CDE and stakeholders agree that it is important to demonstrate how schools are performing in the areas of career readiness and to recognize the success of schools that are implementing these career programs. Pursuant to the provisions of Senate Bill 98 (Chapter 24, Statutes of 2020), the CDE is also required to report valid and reliable data collected in 2019–20 that would have been included in the 2020 Dashboard. Accordingly, the CDE intends to evaluate the 2019–20 course work and assessment data (based on the 2018–19 administration for grade 11 students) needed to produce the CCI, and will make all valid and reliable data available on its website in December 2020.

In addition, this item provides an update on the progress by the CDE on refining the statistical methodology used to develop a Student Growth Model and the implementation of *Education Code* (*EC*) Section 52064.5, related to local indicators.

## Recommendation

The CDE recommends that the SBE adopt the following new career measures for inclusion in the CCI:

* Pre-apprenticeships
* State and Federal Job Programs
* Transition Work-Based Learning Experiences (available only to students with Individualized Education Programs [IEPs])
* Transition Classroom-Based Learning Experiences (available only to students with IEPs)

## Brief History of Key Issues

### College/Career Indicator

In response to SBE direction to include more career measures in the CCI and ultimately build out the indicator to serve as a measure of college **and** career preparedness, the CDE has worked with interested stakeholders including, but not limited to, the Alternative Schools Task Force, the Technical Design Group (TDG), the CCI Work Group, and the Advisory Commission on Special Education to identify additional career measures for potential inclusion in the Dashboard. These include:

* Workforce Readiness Certificate Program Completion
* Food Handler Certification Program Completion
* Pre-Apprenticeship Program Completion
* State or Federal Job Program Completion
* Transition Program: Classroom-Based Learning Experiences
* Transition Program: Work-Based Learning Experiences

In February 2020, the CDE met with the Alternative Schools Task Force and the CCI Subcommittee to review these new measures, discuss their appropriateness for inclusion in the Dashboard, and develop criteria for placement in the Prepared and Approaching Prepared levels of the CCI. In April, May, and August 2020, additional simulations were conducted and shared with the two groups, as well as with the TDG and the California Practitioners Advisory Group (CPAG). These analyses, along with their recommendations, are provided in Attachment 1.

### Student Growth Model

In March 2020, Governor Gavin Newsom issued an Executive Order that cancelled the California Assessment of Student Performance and Progress (CAASPP) for the 2019–2020 school year due to the COVID-19 pandemic. As a result, no statewide assessment results are available for the 2019–20 school year. However, the CDE is committed to producing a growth model in early 2021, using prior-year assessment results for informational purposes.

At the March 2020 State Board of Education (SBE) meeting, the SBE requested that the CDE discuss its progress on developing a growth model. The CDE continues to work closely with national experts from Educational Testing Service (ETS), CDE’s testing vendor, on various growth models and the types of information each model is able to convey since April 2017. These experts have also facilitated conversations at the Growth Model Stakeholder Work Group meetings convened by the California Comprehensive Center (CCC), now known as the Region 15 Comprehensive Center.

In April of 2017, CDE requested that ETS conduct a statistical analysis of three growth models based on a review of the various growth models by stakeholder groups, including, but not limited to, the Technical Design Group (TDG) and the CAASPP Technical Advisory Group.

1. “Change-in-Distance-to-Met” (CDTM) measures absolute growth of each student from the prior year to the current year using Distance from Level 3 as the measurement threshold.
2. “Conditional percentile rank of the gain” (CPR) ranks the growth of students who are grouped together, as a result of having the same prior year test scores, in the same subject and grade.
3. “Residual gain” (RG) is the difference between a student’s predicted test score and actual test score. Note: the predicted test score is based on both prior English language arts/literacy (ELA) and mathematics test scores, as well as the scores of all other students in the same grade.

All three models were compared against three criteria discussed at the January 2017 SBE meeting: (1) strength or relationship with background characteristics, (2) sensitivity to school configuration and assessment content area, and (3) statistical precision.

When looking at the strength of relationships of each model with background characteristics, the CPR performed the poorest of all three models. The CDTM was the most sensitive to school configuration and assessment content areas (ELA and mathematics) and had the least statistical precision. In the end, the RG model had the most promising results from the evaluation of these statistical attributes (see Table 1).

**Table 1**

(Note: the “X” indicates the growth measure performed the poorest of the three modes)

| **Criteria** | **CDTM** | **CPR** | **RG** |
| --- | --- | --- | --- |
| Strength or relationship with background characteristics | N/A | X | N/A |
| Sensitivity to school configuration and assessment content area | X | N/A | N/A |
| Statistical precision | X | N/A | N/A |

The ETS presented the three models at the May 2018 SBE meeting, and the SBE directed the CDE and ETS to carry out further analysis on the RG model. Findings from this analysis were summarized in a second ETS report, which was presented in a June 2018 SBE Information Memorandum. The report showed that, while the RG model performed statistically similarly in both years, there was low year-to-year stability within the outcomes. Specifically, the report stated: “Such high volatility can make it difficult for local educational agencies to use the growth data for driving decisions, as decisions made one year might be contradicted with the next year’s growth data. It may be more advisable to look for patterns in these scores over several years than to act on their values in a given year.”   
  
Based on these findings, the SBE voted to delay the implementation of the RG model and directed the CDE to explore technical adjustments to increase accuracy and year-to-year stability. The SBE also directed the CDE to convene a stakeholder work group tasked with identifying the specific information that stakeholders sought in a growth model. The CCC facilitated the Growth Model Stakeholder Group, which met four times between February and September of 2019. In November 2019, the SBE received an Information Memorandum, providing a summary of the growth model stakeholder feedback group process.

In July 2020, the CDE made a presentation to the SBE on the progress toward the development of the RG growth model. Region 15 Comprehensive Center staff shared the most recent feedback provided from the Growth Model Stakeholder group based on a recent meeting of the group in June 2020. Representatives from the ETS identified the questions that the RG model can and cannot answer and presented its proposed methodology – the Estimated Best Linear Predictor (EBLP) – to stabilize the RG model. Additionally, the CDE outlined the next steps for SBE action to adopt a growth model for information purposes in the 2020–21 school year.

### Implementation of California *Education Code* Section 52064.5

*EC* Section 52064.5 relates to the Standards for Local Indicators and an overview of the data that may be considered for use at the statewide level. In particular, this first data set focuses on teacher and credentialing information which is collected through an exchange with the California Commission on Teacher Credentialing (CTC). Once these data are received from the CTC, they will be analyzed to determine if they are valid and reliable to use for this purpose. If the data meets these criteria, the CDE will then develop options for incorporation into the local indicator for Priority 1 for the SBE’s consideration at a later date.

## Summary of Previous State Board of Education Discussion and Action

### College/Career Indicator

In July 2016, the SBE reviewed and approved the CCI as a state indicator to be part of the design of the local control funding formula (LCFF) evaluation rubrics (which is currently reported through the Dashboard) (<https://www.cde.ca.gov/be/mt/ms/documents/finalminutes1314jul2016.doc>).

In September 2016, the SBE reviewed and approved Status performance levels for the CCI based on the 2013–14 cohort data file, and approved the re-evaluation of the performance levels in September 2017 once the first year of results of Smarter Balanced assessment were included in the CCI. The SBE also directed the removal of the “Well Prepared” category until additional data on career readiness becomes available (<https://www.cde.ca.gov/be/ag/ag/yr16/documents/sep16item01.doc>).

In September 2017, the SBE reviewed a three-year implementation plan for the CCI. In addition, the SBE reviewed a clarification to one of the CCI criterion in the “Approaching Prepared” level within the CCI and the recommended revised Status cut scores based on the Class of 2016. The SBE approved the revised cut scores for Status. The SBE also reviewed the three-year plan timeline for fully building out this indicator to include additional career and college measures (<https://www.cde.ca.gov/be/ag/ag/yr17/documents/sep17item02.doc>).

In February 2018, the SBE received an Information Memorandum that provided an update on the status of the three-year CCI timeline and the development of new career measures, including Leadership/Military Science (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-feb18item02.docx>).

In March 2018, the SBE was informed of the revisions made to the Fall 2017 Dashboard, including items that were being prepared for the 2018 Dashboard release, such as the potential use of the following three CCI measures: State Seal of Biliteracy, Golden State Seal Merit Diploma, and Articulated Career Technical Education Courses (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/mar18item01.docx>).

In April 2018, the SBE received an Information Memorandum that provided an overview of the research conducted in the development of the CCI and the rigorous vetting criteria and processes that were applied to select CCI measures (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-apr18item02.docx>).

In May 2018, the SBE held a Study Session on the CCI and received an overview of the indicator and presentation from an LEA on their local use of the CCI (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/may18item02slides.pdf>).

In August 2018, the SBE received an Information Memorandum on the additional measures proposed for the CCI for the 2019 Dashboard  
(<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-aug18item02.docx>).

In September 2018, the SBE approved the State Seal of Biliteracy and Leadership/Military Science for inclusion in the CCI. In addition, the SBE approved placement criteria for the two new measures (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/sep18item01.docx>).

In November 2018, the SBE approved Status and Change cut scores for the CCI. (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/nov18item04.docx>)

In April 2019, the CDE provided an Information Memorandum on the history, implementation, and purpose of the CCI in the Accountability System which was used for the May Study Session (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-apr19item01.docx>).

In May 2019, the SBE held a study session on the CCI (<https://www.cde.ca.gov/be/ag/ag/yr19/documents/may19item01studysession.docx>).

In June 2019, the SBE received an Information Memorandum providing an update on the definitions used in California Longitudinal Pupil Achievement Data System (CALPADS) and California Special Education Management Information System (CASEMIS) for career measures collected in 2018–19 and 2019–2020 for possible inclusion in the CCI (<https://www.cde.ca.gov/be/pn/im/infomemojun2019.asp>).

At the March 2020 SBE meeting, the CDE reviewed the career measures collected in 2018–19 and its plans to conduct simulations for each of these measures to determine if the measures are valid and reliable and to set criteria that graduates must meet to be placed in the Prepared or Approaching Prepared CCI levels (<https://www.cde.ca.gov/be/ag/ag/yr20/documents/mar20item05.docx>).

At the May 2020 SBE meeting, the CDE shared its data analyses on several new career measures currently being collected in CALPADS for future incorporation into the CCI. (<https://www.cde.ca.gov/be/ag/ag/yr20/documents/may20item02.docx>).

### Student Growth Model

In a June 2016 Information Memorandum, the CDE provided a progress update and clarified key issues related to the design of a school- and district-level accountability model, as opposed to reporting individual student-level growth and performance (<https://www.cde.ca.gov/be/pn/im/documents/memo-dsib-amard-jun16item01.doc>).

In February 2016, the SBE received an Information Memorandum that provided an overview of student-level growth models that can be used to communicate Smarter Balanced Summative Assessment results (<https://www.cde.ca.gov/be/pn/im/documents/memo-dsib-amard-feb16item01.doc>).

In January 2017, the SBE discussed criteria for selecting a growth model used for school and district accountability (<https://www.cde.ca.gov/be/ag/ag/yr17/documents/jan17item02.doc>).

Following the SBE discussion in January 2017, the CDE further consulted with ETS, the Technical Design Group (TDG), the CAASPP Technical Advisory Group (TAG), and the Statewide Assessment Stakeholder Group, regarding potential growth models. Three models were selected for simulation. The discussion and recommendations of the groups were summarized and presented to the SBE in a June 2017 Information Memorandum (<https://www.cde.ca.gov/be/pn/im/documents/memo-asb-adad-jun17item03.doc>).

In February 2018, the SBE received an Information Memorandum with the results of the ETS Growth Study, which provided a statistical analysis of three proposed growth models (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-feb18item01.docx>).

In May 2018, the SBE reviewed analyses of the three student-level growth models conducted by ETS and directed the CDE to further explore the Residual Gain model for possible inclusion in the Dashboard (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/may18item02.docx>).

At its July 2018 meeting, the SBE directed the CDE to conduct further analyses on the Residual Growth model, including the impact of future years of assessment data, changes in the model to reduce year-to-year volatility, consideration of additional growth models or options, and an examination of growth models implemented in other states (<https://www.cde.ca.gov/be/ag/ag/yr18/documents/jul18item01.docx>).

The CDE engaged the California Comprehensive Center to conduct this research and facilitate a stakeholder process on the future direction of this work. In February 2019, the SBE received an Information Memorandum, providing a summary of the first Student Growth Model stakeholder meeting (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-feb19item03.docx>).

In April 2019, the SBE received an Information Memorandum, providing a summary of the second growth model stakeholder feedback group meeting (<https://www.cde.ca.gov/be/pn/im/documents/memo-pptb-amard-apr19item02.docx>).

In November 2019, the SBE received an Information Memorandum, providing a summary of the growth model stakeholder feedback group process (<https://www.cde.ca.gov/be/pn/im/documents/nov19memoamard01.docx>).

At the March 2020 meeting, the SBE directed the CDE to provide a presentation at the May 2020 meeting regarding the work conducted to date on the development of a student-level growth model. Due to the national health crisis, this presentation was postponed until the July 2020 SBE meeting (<https://www.cde.ca.gov/be/ag/ag/yr20/documents/mar20item05.docx>).

In June 2020, the SBE received an Information Memorandum, providing the history and background on the student growth model work to date. (<https://www.cde.ca.gov/be/pn/im/documents/memo-imb-amard-june20item01.docx>).

At the July 2020 SBE meeting, the CDE provided a presentation regarding the work conducted to data on the development of a student-level growth model. (<https://www.cde.ca.gov/be/ag/ag/yr20/documents/jul20item02.docx>).

### Implementation of California *Education Code* Section 52064.5

In November 2019, the SBE adopted updated teacher equity definitions under Every Student Succeeds Act and state reporting requirements based on feedback from LEAs (<https://www.cde.ca.gov/be/ag/ag/yr19/documents/nov19item05rev.docx>).

In August 2020, the SBE received an Information Memorandum which provided background information and a implementation plan for *Education Code* 52064.5 related to the Standards for Local Indicators (<https://www.cde.ca.gov/be/pn/im/documents/aug20amard01.docx>).

## Fiscal Analysis (as appropriate)

The 2020–21 state budget funds the Proposition 98 Minimum Guarantee at $70.9 billion. This reflects state funding of $45.1 billion and local funding of $25.8 billion, accounting for $10,654 in transitional kindergarten through grade twelve per-pupil funding. In addition, this funding includes deferrals from 2019–2020 of $1.9 billion and 2020–21 of $11 billion (with $5.8 billion to be triggered off in 2020–21 if the federal government provides sufficient funding to be used for this purpose). Additionally, the state budget provided $450,000 in one-time Proposition 98 General Funds to the State Department of Education to support the alignment and integration of the online platforms supporting the Dashboard, the Local Control and Accountability Plan Electronic Template System, and the School Accountability Report Card.

## Attachment(s)

* Attachment 1: Analysis and Recommendations for the Adoption of Additional Career Measures for the College/Career Indicator (14 pages)
* Attachment 2: Exploring Empirical Best Linear Prediction for Aggregate Growth Measures (9 pages)
* Attachment 3: Implementation of California *Education Code* Section 52064.5

(3 pages)

* Attachment 4: California School Dashboard Educational Outreach Activities   
  (5 Pages)

# Attachment 1

## Analysis and Recommendations for Additional Career Measures in the College/Career Indicator

The California Department of Education (CDE) is committed to building out the College/Career Indicator (CCI) over several years as data becomes available to include additional career measures and ultimately build out the indicator to serve as a measure of college **and** career preparedness. During deliberations at the September 2016 State Board of Education (SBE) meeting, and in subsequent conversations, there were concerns that the CCI did not contain sufficient career measures. To explore how to provide a better balance of college and career measures in the CCI, the CDE has worked closely with the CCI Work Group, along with the Alternative Schools Task Force (a joint project with the John W. Gardner at Stanford University, which was supported by a grant from the Stuart Foundation) and the Advisory Commission on Special Education [ACSE]) to:

* Define the career measures recommended by the CCI Work Group for collection through the California Longitudinal Pupil Achievement Data System (CALPADS), and
* Identify career measures specific to Dashboard Alternative Schools Status (DASS) schools.

During the 2018–19 school year, the CDE collected data for the following career measures in CALPADS, for possible inclusion in the Dashboard:

* Completion of a Pre-Apprenticeship (both DASS and non-DASS schools)
* Completion of a State or Federal Job Program (limited to DASS schools)
* Workforce Readiness Certificate (limited to DASS schools)
* Completion of Food Handler Certification Program (limited to DASS schools)

During the 2018–19 school year, the CDE also collected data on two career measures available only to students with Individualized Education Programs (IEPs).

* Completion of Workability Courses and Work-Based Learning
* Completion of Department of Rehabilitation (DOR) Work-Based Learning

These measures were collected in the California Special Education Management Information System (CAESMIS), the system used to collect data for students with disabilities. Beginning in 2019–2020, the CDE shifted the CAESMIS data collections to CALPADS.)

Please note that previously adopted CCI measures – which have been skewed toward college readiness –were placed across the three CCI levels based on correlations with performance on the Smarter Balanced Summative Assessments in English language arts/literacy (ELA) and mathematics. The new measures under consideration in this item assess career readiness. **As a result, the proposed placement criteria for the career measures are not tied to a predictive model based on academic performance.** This is based on direction received during the May 2019 SBE Study Session on the CCI where the SBE recommended that the CDE develop a new methodology to determine the rigor of new career measures (i.e., not tied to ELA and mathematics results on the Smarter Balanced Summative Assessments (<https://www.cde.ca.gov/be/ag/ag/yr19/documents/may19item01studysession.docx>). Based on this directive, analyses on these newly proposed career measures are based on research and the completion of Career Technical Education (CTE) coursework. (These analyses are described in detail in this attachment.)

As previously stated, this item is before the SBE for action in order to allow the CDE to report out on these new career measures publicly this fall. While this information will not be used to determine a color performance on the Dashboard, the CDE and stakeholders agree that it is important to demonstrate how schools are performing in the areas of career readiness and to recognize the success of schools that are implementing these career programs. Pursuant to the provisions of Senate Bill 98 (Chapter 24, Statutes of 2020), the CDE is also required to report valid and reliable data collected in 2019–20 that would have been included in the 2020 Dashboard. Accordingly, the CDE intends to evaluate the 2019–20 course work and assessment data (based on the 2018–19 administration for grade 11 students) needed to produce the CCI, and will make all valid and reliable data available on its website in December 2020.

The Summary Chart below provides a brief overview of all career measures recommended for inclusion in the CCI, along with proposed placement criteria for the “Prepared” and “Approaching Prepared” levels.

**Summary Chart by Measure for the Proposed Criteria for Being Placed in the Prepared and Approaching Prepared**

| **School Type or Student Group** | **Measure** | **Prepared Criteria** | **Approaching Prepared Criteria** |
| --- | --- | --- | --- |
| DASS | Registered Pre-Apprenticeship | Completion of Program | N/A |
| DASS | Non-Registered Pre-Apprenticeship | Completion of program **plus** completion of one semester/two quarters/two trimesters of a CTE course with a C- or better | Completion of Program |
| DASS | State and Federal Jobs Program | Completion of Program **plus** completion of one semester/two quarters/two trimesters of a CTE course with a C- or better | Completion of Program |
| Traditional | Registered Pre-Apprenticeship | Completion of Program | N/A |
| Traditional | Non-Registered Pre-Apprenticeship | Completion of Program plus completion of a CTE Pathway | Completion of Program |
| Students with an IEP and who earn a certificate of completion | Transition Classroom- or Work-Based Experiences | Completion of 100 hours of work experience and the equivalent of 4 semester courses of college and career exploration/preparation designed to prepare a student with an IEP for employment and independent living | Completion of 100 hours of work experience **OR** Equivalent of 4 semester courses of college and career exploration/preparation |

### Career Measures Collected in CALPADS

This section provides data and discussion on the four career measures that were collected in CALPADS during the 2018–19 school year:

* Completion of a Pre-Apprenticeship (both DASS and non-DASS schools)
* Completion of a State or Federal Job Program (limited to DASS schools)
* Workforce Readiness Certificate (limited to DASS schools)
* Completion of Food Handler Certification Program (limited to DASS schools)

As with all newly proposed CCI measures, the CDE collected and analyzed data and presented their analyses to the two working groups tasked with overseeing the development of the CCI:

* California Alternative Task Force
* CCI Subcommittee

The data shared with the two groups, along with their recommendations, are provided below.

### Feedback from the Alternative Schools Task Force and the College/Career Indicator Subcommittee

In February 2020, the CDE met with the Taskforce and the CCI Subcommittee to review the 2018–19 CALPADS data on the career measures and discuss their appropriateness for the CCI model. After the data for each measure was presented, the teams were asked to weigh in on the following questions:

* Should the completion of the measure, by itself, place a student in the prepared or approaching prepared level?
* If the approaching prepared level is recommended, should the measure be paired with other CCI measures for students to be placed in the prepared level? If so, which ones?
* What is the rationale for your recommendations?

For those measures that apply to DASS schools only, teams were also asked:

* The CDE has indicated that this measure is limited to DASS schools. Should this measure also be applied to non-DASS Schools?

Based on the feedback from the two groups, the CDE determined whether further simulations needed to be produced.

The data shared with the two groups is included here.

### Pre-Apprenticeships: Registered and Non-Registered

In 2018–19, a pre-apprenticeship was completed by 2,947 high school students (or 0.6 percent of high school students). A breakdown by registered and non-registered pre-apprenticeships appears below:

* Registered pre-apprenticeships were completed by 1,302 high school students (0.26 percent). These programs are recognized by business and/or industry and are registered at the state or national level. (Note: The Division of Apprenticeship Standards in the Department of Industrial Relationships may recognize pre-apprenticeship programs that have formal linkage agreements with state-registered apprenticeship programs and have e**stablished apprenticeship program standards.)**
* Non-registered pre-apprenticeships were completed by 1,645 high school students (0.33 percent). These programs are recognized by business and/or industry but are not registered at the state or national level.

In order to evaluate the benefit of adding this measure to the CCI model, the CDE conducted an analysis, shown in Tables 1 and 2 of all students who completed a registered and non-registered pre-apprenticeship and their CCI preparedness levels.

### Table 1: Registered Pre-Apprenticeship Completers and CCI Level on the 2019 Dashboard

| **CCI Level**  **(via current CCI measures)** | **2019 Students: Non-DASS** | **2019 Students: DASS** |
| --- | --- | --- |
| Prepared | 725 (63.5%) | 0 (0.0%) |
| Approaching Prepared\* | 249 (21.8%) | 10 (6.2%) |
| Not Prepared (graduated)\* | 143 (12.5%) | 83 (51.6%) |
| Not Prepared (did not graduate) | 24 (2.1%) | 68 (42.2%) |
| **Total for All CCI Levels** | **1,141** | **161** |

\*The shaded boxes represent the students who could potentially benefit from the inclusion of the registered pre-apprenticeship in the CCI. Depending on the criteria adopted for this measure, students who completed a registered pre-apprenticeship could be placed in a higher CCI level. That is, 249 non-DASS students and 10 DASS students could potentially move from the Approaching Prepared level to the Prepared level, and a total of 226 students could move from the Not Prepared level to the Approaching Prepared level.

### Table 2: Non-Registered Pre-Apprenticeship Completers and CCI Level on the 2019 Dashboard

| **CCI Level (via current CCI measures)** | **2019 Students: Non-DASS** | **2019 Students: DASS** |
| --- | --- | --- |
| Prepared | 1,021 (70.7%) | 0 (0.0%) |
| Approaching Prepared\* | 250 (17.3%) | 16 (8.0%) |
| Not Prepared (graduated)\* | 156 (10.8%) | 120 (59.7%) |
| Not Prepared (did not graduate) | 17 (1.2%) | 65 (32.3%) |
| **Total for All CCI Levels** | **1,444** | **201** |

\*The shaded boxes represent the students who could potentially benefit from the inclusion of the non-registered pre-apprenticeship in the CCI. Depending on the criteria adopted for this measure, students who completed a non-registered pre-apprenticeship could be placed in a higher CCI level.

The CDE also conducted a cross-measure analysis to determine the number of students who completed both a registered or non-registered pre-apprenticeship and career technical education (CTE) coursework.

Of the 1,302 **registered** pre-apprenticeship completers:

* 611 (46.9 percent) completed a CTE pathway between 2015 and 2019
* 1,035 (79.4 percent) completed at least one semester or one quarter of CTE courses with a C minus or better in 2019
* 1,069 (82.1 percent) earned at least 0.5 credits in a CTE course in 2019

Of the 1,645 **non-registered** pre-apprenticeship completers:

* 653 (39.7 percent) completed a CTE pathway between 2015 and 2019
* 1,336 (81.2 percent) completed at least one semester or one quarter of CTE courses with a C minus or better in 2019
* 1,356 (82.4 percent) earned at least 0.5 credits in a CTE course in 2019

Based on this data, the Alternative Schools Task Force and CCI Subcommittee requested that the CDE conduct simulations based on the following placement criteria:

* **Registered Pre-Apprenticeships**, by itself, may earn a student Prepared (i.e., stand-alone measure).
* **Non-Registered Pre-Apprenticeships** must be paired with an additional CTE measure for Prepared. This additional measure is dependent on the type of school from which the student graduates:
* Students at **non-DASS schools** must also complete a CTE pathway to earn Prepared.
* Students at **DASS schools** must also complete either one CTE pathway or one semester/two quarters/two trimesters of a CTE course.

The results, below, were shared with each group at their next scheduled meeting, in May 2020.

The inclusion of pre-apprenticeships as a CCI measure would result in an additional 679 students being placed in the Prepared level (based on 2019 CALPADS data). Of these, four-year graduates comprise the majority (79.5 percent), while one-year graduates make up 20 percent of newly prepared students.

Among the two types of pre-apprenticeships, most newly Prepared graduates had completed a registered pre-apprenticeship:

* Among four-year graduates, 385 students became newly prepared via a registered pre-apprenticeship, and 148 via a non-registered pre-apprenticeship
* Among one-year graduates, 90 students became newly prepared via a non-registered pre-apprenticeship, and 43 via a non-registered pre-apprenticeship

The CDE recommends that that the SBE adopt pre-apprenticeships as a CCI measure and that the following criteria apply for placement purposes:

* **Registered Pre-Apprenticeship:** Completing this measure alone places a student in the Prepared level
* **Non-Registered Pre-Apprenticeship:** Completing this measure alone places a student in the Approaching Prepared level. To earn the Prepared level, a student must also complete a CTE pathway (if in a non-DASS school) or one semester/two quarters/two trimesters of a CTE course (if in a DASS school).

The CCI Workgroup and the Alternative Task Force have unanimously supported the inclusion of this measure in the CCI, along with the proposed placement criteria. At its August 2020 meeting, the TDG also unanimously supported the inclusion of the measure in the CCI and that the proposed placement criteria be adopted. Finally, the CPAG met in August 2020 and were unified in their support for this measure’s inclusion in the CCI, along with the proposed placement criteria.

*State and Federal Job Programs*

During the 2018–19 school year, CALPADS collected data on the completion of State and Federal Job Programs by students attending DASS schools. Federal programs include the Job Corps, the Workforce Innovation and Opportunity Act (WIOA), and YouthBuild. State programs include the California Conservation Corps (CCC) and the Regional Occupational Center Programs (ROCP).

A quick overview of the federal and state programs precedes a more general discussion on the measure and its appropriateness for inclusion in the CCI.

1. **Job Corps (Federal Program)**

Job Corps, which is administered by the U.S. Department of Labor and offers GED support and vocational training to youth between 16 and 24 years old, is the largest and most comprehensive among the three federal programs. Each year, Job Corps serves more than 60,000 students nationwide, of which 65 percent are placed into the workforce (job or military). The state average for California is even higher: in 2016 (the most recent data release posted), 77 percent of Job Corps students were placed in the workforce, and 60 percent of these new workers were retained. In general, these jobs pay higher than the state minimum wage: In California, the average hourly wage for youth placed in jobs through Job Corps was $14.97 in 2019, nearly three dollars more than the state minimum wage of $12. Finally, Job Corps has been found to improve literacy and numerical skills. In California, over 60 percent of students gain literacy and numeracy skills during their time in Job Corps.

1. **WIOA (Federal Program)**

The WIOA Youth Program, which is also administered by the Department of Labor, provides career development to a critically important segment of schools that reengage out-of-school youth, who have not graduated from high school. Every year, WIOA serves nearly 160,000 youth nationally: 73 percent of students who complete the program are placed in the workforce, a formal training program, or another education program. A year after placement, 73 percent of students remain employed. California-specific information is not available; however, according to the California Alternative Task Force, WIOA programs in California are strong: each student is assigned a case manager who provides wrap-around services to the students; all students take a work readiness course and many students participate in paid internships; the goal is for students to both (1) earn their GED or High School Diploma, and (2) enroll in a postsecondary school or earn an industry recognized credential. According to national data, WIOA graduates often earn minimum-wage jobs; no data specific to California was available.

1. **YouthBuild (Federal Program)**

YouthBuild, which serves about 10,000 youth every year, has a narrower scope than that of Job Corps and WIOA. Students learn the construction trade by building homes for low-income families in their communities. They spend every other week on a job site, learning the construction trade by building homes for low-income families in their communities. Like those in the WIOA program, YouthBuild students have not graduated from high school or earned a degree. Yet, YouthBuild has shown to impact GED attainment and post-graduation employment (i.e., up to 30 months after graduating from the program). According to Kathleen Tomberg of the John Jay College of Criminal Justice, “participation in YouthBuild AmeriCorps is often the first time that these young people see themselves as service providers rather than service recipients.”

1. **CCC (State Program)**

CCC’s mission is environmental conservation, and corps members perform physical labor to respond to and prevent environmental damage. Most corps members join the CCC when they are 18 and serve for up to two years. During that time, they are paid a monthly stipend of $1,905. After leaving the CCC, 60 percent report being employed immediately, based on small-scale surveys administered by independent researchers.

1. **ROCP (State Program)**

These programs provide career education, career development, and workforce preparation to California high school students. Generally, students enroll in an ROCP during high school, and some high schools allow students to receive school credit for courses taken at center. Due to the decentralized structure of these programs – they generally operate as local branches with much independence – state-level data on the program is limited. However, studies have found that the ROCP offers comprehensive work-based learning experiences, including internships, field trips, guest speakers and job shadowing. Many employers that have hired former ROCP students report that the program provides important job and life skills, such as time management, attendance and punctuality, a willingness to learn, and the ability to get along with others and work with minimal supervision.

In 2018–19, the State and Federal Job Programs were completed by 5,254 high school students, including 808 students in DASS schools. Table 3 presents data on the number of students who completed the program and their CCI preparedness levels. **Please note that this measure is proposed for DASS schools only.**

### Table 3: State and Federal Job Program Completers and CCI Level on the 2019 Dashboard

| **CCI Level (via current CCI measures)** | **2019 Students: DASS** |
| --- | --- |
| Prepared | 19 (2.4%) |
| Approaching Prepared\* | 72 (8.9%) |
| Not Prepared (graduated)\* | 555 (68.7%) |
| Not Prepared (did not graduate) | 162 (20.0%) |
| **Total for All CCI Levels** | **808** |

\*The shaded boxes represent the students who could potentially benefit from the inclusion of the State and Federal Job Program in the CCI. Depending on the criteria adopted for this measure, DASS students who completed the State and Federal Job Program could be placed in a higher CCI level.

Of the 808 students in 2019 DASS graduation rate who completed one of the State or Federal Job Programs, a total of 497students (61.5%) completed at least one semester/two quarters/two trimesters of CTE courses with a C minus or better between 2015 and 2019. (Note: These were the criteria proposed for DASS students completing the Non-Certified Pre-Apprenticeship).

Of these 497 students:

* 18 were placed in Prepared level via other criteria
* 69 were counted as Approaching Prepared via other criteria
* 334 were counted as Not Prepared graduates
* 76 were counted as Not Prepared non-graduates

Based on these criteria, a total of **403** additional DASS students would have earned the Prepared level on the 2019 Dashboard:

* 69 students would move up from Approaching Prepared, and
* 334 students would move up from Not Prepared (graduates)

Both the CCI Workgroup and the Alternative Task Force held separate meetings in August 2020 to focus exclusively on the inclusion of State or Federal Job Programs in the CCI. The two groups reached different conclusions about the appropriateness of this measure for inclusion in the CCI.

The CCI Workgroup recommended that the CDE postpone advancing this measure to the SBE until 2022, for potential inclusion in the 2022 Dashboard, in order to allow for consistent reporting and to collect data on individual state and federal programs that are being offered by DASS schools. The Workgroup also recommended removing WIOA from the list of programs counting toward this measure, based on their following rationale:

* Implementation is cumbersome, especially with regards to assessments, data collection and reporting
* The program is not implemented consistently throughout the state and is driven by local plans
* WIOA pathways are not defined in the same way as CTE pathways (use different criteria) and therefore may not meet SBE expectations for career readiness.

The Alternative Task Force voiced strong support for including this measure for DASS students only and for recommending its inclusion at the September 2020 SBE meeting. The members also strongly disagreed with the CCI Workgroup’s assessment of the WIOA program and argued for its inclusion in the State or Federal Programs. They felt that it served a critical role in reengaging out-of-school youth and was therefore an appropriate measure for DASS schools. According to the Task Force, WIOA programs in California were particularly robust, offering a broad array of services to support youth, including case managers, work readiness courses, and paid internships.

At its August 2020 meeting, the TDG reached unanimous consensus that WIOA was a valid program for DASS schools and that it served a critical need. It also believed that those schools that are reengaging youth in education should receive credit for their work. The TDG unanimously agreed that WIOA be included in the State or Federal Programs. It also supported the proposed placement criteria for all State or Federal Job Programs. At the August 2020 CPAG meeting, members were unified in their support for the inclusion of WIOA in the State or Federal Job Programs measure.

Based on these discussions, the CDE recommends that the State or Federal Job Programs (including the WIOA program) be adopted as a CCI measure **for DASS students only** and that students who complete **both** a State or Federal Job Program **and** at least one semester/two quarters/two trimesters of CTE courses with a C minus or better be placed in the Prepared level. The TDG and CPAG unanimously supported these placement criteria.

Note: Currently the collection of State or Federal Job Programs in CALPADS does not include the specific job program completed by students. However, beginning with the 2020–21 collection, data on the specific program completed will be available. Therefore, specific job programs can be selected for incorporation into the CCI starting with the 2022 Dashboard.

*Workforce Readiness Certificate*

In 2018–19, the Workforce Readiness Certificate was earned by 3,213 high school students, including students from both DASS and non-DASS schools. (Currently, this measure is proposed for DASS schools only.). In order to evaluate the benefit of adding this measure to the CCI model, the CDE conducted an analysis, shown in Table 4, of all students who earned the certificate and their CCI preparedness levels.

### Table 4: Workforce Readiness Earners and CCI Level on the 2019 Dashboard

| **CCI Level**  **(via current CCI measures)** | **2019 Students: Non-DASS** | **2019 Students: DASS** |
| --- | --- | --- |
| Prepared | 1,477 (65.6%) | 92 (9.6%) |
| Approaching Prepared\* | 482 (21.4%) | 156 (16.3%) |
| Not Prepared (graduated)\* | 262 (11.6%) | 589 (61.4%) |
| Not Prepared (did not graduate) | 32 (1.4%) | 123 (12.8%) |
| **Total for All CCI Levels** | **2,253** | **960** |

\*The shaded boxes represent the students who could potentially benefit from the inclusion of the Workforce Readiness Certificate in the CCI. Depending on the criteria adopted for this measure, students who completed the Workforce Readiness Certificate could be placed in a higher CCI level.

The CDE also conducted a cross-measure analysis to determine the number of students whom both earned a Workforce Readiness Certificate and completed CTE coursework. Of the 3,213 students who earned a Workforce Readiness Certificate:

* 1,134 (35.3 percent) completed a CTE pathway between 2015 and 2019
* 2,049 (63.7 percent) completed at least one semester or one quarter of CTE courses with a C minus or better in 2019
* 2,083 (64.8 percent) earned at least 0.5 credits in a CTE course in 2019

This measure sparked much discussion among members of the Alternative School Task Force and the CCI Subcommittee. Both groups expressed concerns that the certificate is not standardized and varies widely in rigor across districts. The CCI Subcommittee voiced concern that incorporating the certificate would reduce the rigor of the CCI. Members indicated that many districts were working to implement programs to ensure all students, including students with disabilities, receive a high-quality program to increase their success after high school. Adding measures that reduce the rigor of the CCI may decrease this momentum. Therefore, they recommended that the certificate not be included in the CCI. Additional discussions were held with the Alternative School Task Force in May 2020, at which time the group agreed that the Workforce Readiness Certificate should not be included in the CCI. Both the TDG and CPAG, unanimously agreed with this recommendation at their respective August 2020 meetings.

*Food Handler Certificate*

In 2018–19, the Food Handler Certificate was earned by 2,782 high school students, including students from both DASS and non-DASS schools. (Currently, this measure is proposed for DASS schools only, with a particular focus on Juvenile Court schools.). In order to evaluate the benefit of adding this measure to the CCI model, the CDE conducted an analysis, shown in Table 5, of all students who earned the certificate and their CCI preparedness levels.

### Table 5: Food Handler Certificate Earners and CCI Level on the 2019 Dashboard

| **CCI Level**  **(via current CCI measures)** | **2019 Students: Non-DASS** | **2019 Students: DASS** |
| --- | --- | --- |
| Prepared | 1,262 (57.2%) | 169 (29.3%) |
| Approaching Prepared\* | 503 (22.8%) | 37 (6.4%) |
| Not Prepared (graduated)\* | 392 (17.8%) | 245 (42.5%) |
| Not Prepared (did not graduate) | 48 (2.2%) | 126 (21.8%) |
| **Total for All CCI Levels** | **2,205** | **577\*\*** |

\*The shaded boxes represent the students who could potentially benefit from the inclusion of the Food Handler Certificate in the CCI. Depending on the criteria adopted for this measure, students who completed the Food Handler Certificate could be placed in a higher CCI level.

\*\*Please note that the Food Handler Certificate was slated as a possible CCI measure for students in juvenile court schools, which experience a higher level of mobility than other DASS schools. Only one student who attended a juvenile court school earned the certificate.

The CDE conducted a cross-measure analysis to determine the number of DASS students who earned a Food Handler Certificate and completed CTE coursework.

1. The certificate was earned by only 0.7 percent of all DASS students in the 2019 DASS Graduation Rate. Of those:
   * + 4 percent completed a CTE pathway between 2015 and 2019.
     + 10 percent completed at least one semester or one quarter of CTE courses with a C minus or better in 2019.
     + 14 percent earned at least 0.5 credits in a CTE course in 2019.
2. Only 1 student earned this credit while attending a juvenile court school.

This measure was scrutinized by the two groups. Both the Alternative Schools Task Force and the CCI Subcommittee agreed that because the Food Handler Certificate is only a two-hour on-line course that is usually taken after securing a job, it was not sufficiently rigorous for the CCI. Both the TDG and CPAG, unanimously agreed with this recommendation at their respective August 2020 meetings. Accordingly, this measure is not being recommended for inclusion in the CCI.

**Career Measures Collected in CASEMIS**

In 2018–19, two measures, available for students with IEPs only, were collected in CASEMIS, the system used to collect data for students with disabilities. (Beginning in 2019–2020, the CDE shifted all CASEMIS data collections to CALPADS.)

* Completion of Workability Courses and Work-Based Learning
* Completion of DOR Work-Based Learning

The collection of service hours for these two programs presented several challenges. First, since the collection was voluntary, no districts submitted the number of hours. (The CDE later learned that some districts had attempted to report the hours but had difficulties entering the data in their systems.) Another issue raised by stakeholders was that the Workability and DOR programs do not encompass the full range of work-based learning experiences provided by districts. Based on this feedback, the CDE Special Education Division recommended that, rather than collecting hours associated with specific programs, districts should be given the flexibility to report all work-based learning opportunities (i.e., transitional services) they provide. Therefore, beginning in 2019–2020, data on two new programs, for students with IEPs only, was collected in CALPADS:

* Transition Work-Based Learning Experiences
* Transition Classroom-Based Learning Experiences

The CDE analyzed classroom hours reported for the Workability grant in order to determine the optimal number of hours that students with IEPs should complete in transition work- and/or classroom-based learning experiences to be placed in the Prepared or Approaching Prepared levels of the CCI. Based on this analysis, the CDE recommends that, to earn the Prepared level, students must successfully complete a minimum of 100 hours of work-based learning and the equivalent of four semester courses of college and career exploration/preparation designed to prepare a student with an IEP for employment and independent living. In addition, the CDE recommends that this measure only be applied to students who earn a certificate of completion, to allow schools to demonstrate how well the students are prepared for success after high school. Students with disabilities who earn a regular high school diploma will be required to meet the CTE pathway completion criteria.

## Attachment 2: Exploring Empirical Best Linear Prediction for Aggregate Growth Measures

This attachment was prepared by the Education Testing Services (ETS) for the September 2020 State Board of Education (SBE) on behalf of the California Department of Education (CDE).

### Background

ETS developed the empirical best linear predictor (EBLP) of student achievement growth for schools or local educational agencies (LEAs) in an attempt to reduce the inaccuracy and potentially reduce the year-to-year fluctuations in aggregate-level (e.g., school or LEA-level) growth measures that exist in the commonly-used simple average of individual student growth measures (Lockwood, Castellano, and McCaffrey, 2020). The EBLP is not a growth model for generating individual student growth measures. It is a statistical procedure that uses individual student growth data from multiple school years to calculate more accurate group-level growth measures for a given school year and subject. Any type of growth measure can be used by the EBLP method, including the residual gains that are being considered by California.

Roughly speaking, the EBLP for a particular reporting year and subject (e.g., mathematics) improves the aggregate growth measures by creating a weighted average of student growth measures for both mathematics and English language arts (ELA) from two or more school years, rather than the simple average of only the mathematics growth measures from the reporting year alone. Accordingly, the EBLP is referred to as the “EBLP weighted average” in contrast to the “simple average” of residual gains. The weights for the EBLP weighted average are calculated by a statistical procedure using individual student growth data for the entire state from multiple years. The procedure generates a set of weights, specific to each school and LEA, intended to maximize the accuracy of the EBLP weighted average for each school and LEA.

The weights for a given school or LEA depend on the numbers of growth measures available for that school or LEA. For instance, when calculating aggregate mathematics growth in the reporting year, if a school or LEA has mathematics growth measures from many students in the reporting year, the EBLP weighted average puts most of its weight on the average of those growth measures, and little weight on either ELA growth measures from the reporting year, or growth measures from prior school years. As the number of students with mathematics growth measures in the reporting year decreases, the EBLP weighted average shifts more weight to the ELA growth measures and growth measures from prior school years. Thus, compared to the simple average residual gain, the EBLP model has the greatest impact for small groups and almost no impact for large groups.

At the request of the CDE, ETS conducted a study to explore the potential for using the EBLP method to estimate aggregate growth measures for LEAs and schools. Specifically, three student groups were selected to begin exploring the affordances and constraints of the EBLP method for California data: all students in the school or LEA (All), socio-economically disadvantaged (SED) in the school or LEA, and students with disabilities (SWD) in the school or LEA. The ultimate goal is to apply the EBLP method to all student groups.   
  
The study used longitudinal California student assessment data and studied the impact of EBLP on the accuracy of the estimated school, LEA, or group-level aggregated residual gain growth measures for both mathematics and ELA for the 2018–19 school year. The main focus was on the two-year EBLP-weighted average, which uses student growth data from the 2017–18 and 2018–19 school years to estimate aggregate growth measures in 2018–19. This note briefly summarizes the results of three of the key research questions addressed by that study.

### Research Question 1

*To what extent does using the EBLP weighted average over the simple average growth score* ***improve accuracy of estimates*** *(by group size) for schools, LEAs, and student groups (specifically, SWD and SED) within those entities?*A key motivation for using the EBLP weighted average over the simple average is to improve accuracy. To assess the effectiveness of the EBLP weighted average at meeting this objective, the ratio of the accuracy of the EBLP weighted average to the simple average was used. An accuracy ratio of greater than 1 indicates that the EBLP weighted average is more accurate than the simple average. An accuracy ratio less than 1 indicates that the EBLP weighted average is less accurate than the simple average, and an accuracy ratio equal to 1 indicates they are equally accurate. As a specific example to aid interpretation, an accuracy ratio of 1.50 for the EBLP weighted average means that it is 1.5 times as accurate as the simple average. Moreover, its accuracy is approximately the same as what the accuracy of the simple average would have been if it were based on 50 percent more students. The accuracy ratio was calculated for each school or LEA for both mathematics and ELA and for the three selected student groups.  
  
The results are summarized by the average ratio for groups of schools or LEAs defined by their size, where size is defined by the number of students with growth measures used in calculating growth for the school, LEA, or student group. For example, results for SED students present the average accuracy ratio for schools with 11 to 29 SED students with growth measures, 30 to 149 SED students with growth measures, and 150 or more SED students with growth measures. Accountability measures are not calculated for groups of 10 or fewer students, and groups with 11 to 29 students have reported accountability statistics but no color-coded classification in the Dashboard.   
  
For LEAs, the corresponding group sizes were 11 to 29, 30 to 149, 150 to 1,499, and 1,500 or more. The larger cutoffs for groups’ sizes reflect that LEAs tend to have many more students than individual schools. If a size bin had fewer than 100 schools or LEAs, it was collapsed with the adjacent bin. For instance, the 30 to 149 bin and 150 or more bin were combined for the SWD group for schools, given that there were only 82 schools that had 30 to 149 students with disabilities with growth measures (refer to Table 1).  
  
Table 1 and Table 2, provided at the end of this section, present the results for schools and LEAs respectively. For virtually all schools for the three student groups, the EBLP weighted average improves the accuracy of the growth measures for both mathematics and ELA. The gains are particularly large for small schools and for student groups with few students in the schools. In these cases, the EBLP weighted averages can be up to more than 1.8 times as accurate, on average, than the corresponding simple averages. That is, the accuracy for the EBLP weighted average is approximately the same as what the accuracy of the simple average would have been if it were based on 80 percent more students. When more students are available for calculating the aggregate growth, then improvements for the EBLP weighted averages are smaller. This is to be expected because simple averages are much more accurate for large groups, so that gains in accuracy are less needed and harder to obtain.  
  
For LEAs, the story is more mixed. Again, when few students are available for calculating the aggregate growth for the LEA or student groups, then the EBLP weighted averages are more accurate than simple averages. The improvement can be substantial. However, for larger LEAs and student groups in those LEAs, the EBLP weighted averages do not always improve the accuracy over simple averages.  
  
Several factors contribute to the EBLP weighted average not improving the accuracy for large LEAs. Like large schools, the simple averages are very accurate for large LEAs, so the EBLP weighted averages would, at best, have limited ability to improve accuracy. In addition, the EBLP weighted averages function best when the number of aggregation units (schools or LEAs) used to calculate the weights is large. Note that the number of aggregation units is distinct from group size or the number of students within a school or LEA. In the data analyzed here, the number of schools (approximately 6,500 to 7,500 per data condition) is about 10 times the number LEAs (approximately 675 to 830 per data condition). Accordingly, the weights for the EBLP weighted averages for LEAs are not as precise as they are for schools. This degrades the accuracy of the EBLP weighted averages for LEAs and results in EBLPs for some large LEAs being less accurate than the simple averages.

Table 1 provides the results at the school level.Table 1. Improvement in Accuracy of Growth Estimates Using EBLP Weighted Averages Versus Simple Averages at the School-Level

| **Student Group** | **Subject** | **2018–19** **LEA Size1** | **Number of LEAs** | **Mean Accuracy Ratio for 2-year EBLP vs. Simple Average** | **Percentage of LEAs with Improved Accuracy for 2-year EBLP vs. Simple Average** |
| --- | --- | --- | --- | --- | --- |
| All | ELA | 11 – 29 | 214 | 1.72 | 100% |
| All | ELA | 30 –149 | 2,223 | 1.25 | 100% |
| All | ELA | ≥150 | 5,048 | 1.10 | 100% |
| All | Mathematics | 11 – 29 | 207 | 1.58 | 100% |
| All | Mathematics | 30 –149 | 2,226 | 1.16 | 100% |
| All | Mathematics | ≥150 | 5,045 | 1.06 | 100% |
| SED | ELA | 11 – 29 | 646 | 1.81 | 100% |
| SED | ELA | 30 –149 | 3,505 | 1.31 | 100% |
| SED | ELA | ≥150 | 3,094 | 1.10 | 100%2 |
| SED | Mathematics | 11 – 29 | 645 | 1.59 | 100% |
| SED | Mathematics | 30 –149 | 3,511 | 1.21 | 100% |
| SED | Mathematics | ≥150 | 3,087 | 1.08 | 100%2 |
| SWD | ELA | 11 – 29 | 3,470 | 1.78 | 100% |
| SWD | ELA | ≥30 | 3,053 | 1.40 | 100% |
| SWD | Mathematics | 11 – 29 | 3,474 | 1.54 | 100% |
| SWD | Mathematics | ≥30 | 3,046 | 1.28 | 100% |

1. The size bins refer to the number of students within schools with growth scores in grades four through eight in 2018–19 for the student group and subject of interest (indicated in the first two columns).
2. In these cases, the percentage exceeds 99.9 percent but is not exactly equal to 100 percent.

Table 2 provides the results at the LEA level.

### Table 2. Improvement in Accuracy of Growth Estimates Using EBLP Weighted Averages Versus Simple Averages at the LEA Level

| **Student Group** | **Subject** | **2018–19 LEA Size1** | **Number of LEAs** | **Mean Accuracy Ratio for 2-year EBLP vs. Simple Average** | **Percentage of LEAs with Improved Accuracy for 2-year EBLP vs. Simple Average** |
| --- | --- | --- | --- | --- | --- |
| All | ELA | 11 – 149 | 205 | 1.61 | 100% |
| All | ELA | 150 – 1,499 | 324 | 1.07 | 74% |
| All | ELA | ≥1,500 | 299 | 0.97 | 35% |
| All | Mathematics | 11 – 149 | 205 | 1.50 | 100% |
| All | Mathematics | 150 – 1,499 | 325 | 1.06 | 86% |
| All | Mathematics | ≥1,500 | 298 | 1.00 | 64% |
| SED | ELA | 11 – 149 | 270 | 1.70 | 100% |
| SED | ELA | 150 – 1,499 | 331 | 1.03 | 65% |
| SED | ELA | ≥1,500 | 199 | 0.63 | 7% |
| SED | Mathematics | 11 – 149 | 270 | 1.58 | 100% |
| SED | Mathematics | 150 – 1,499 | 331 | 1.00 | 56% |
| SED | Mathematics | ≥1,500 | 199 | 0.81 | 8% |
| SWD | ELA | 11 – 29 | 121 | 2.17 | 100% |
| SWD | ELA | 30 – 149 | 233 | 1.51 | 100% |
| SWD | ELA | ≥150 | 322 | 0.99 | 57% |
| SWD | Mathematics | 11 – 29 | 121 | 1.99 | 100% |
| SWD | Mathematics | 30 – 149 | 233 | 1.35 | 99% |
| SWD | Mathematics | ≥150 | 322 | 0.96 | 43% |

1. The size bins refer to the number of students within LEAs with growth scores in grades four through eight in 2018–19 for the student group and subject of interest (indicated in the first two columns).

**Research Question 2**

*To what extent does using the EBLP weighted average over the simple average growth score* ***improve cross year stability*** *(by group size) for schools, LEAs, and student groups (specifically, SWD and SED) within those entities?*   
  
Another motivation for the EBLP weighted averages is potentially improving the stability of school or LEA growth measures across years. Stability can be assessed using the correlation of the aggregate growth measures across adjacent school years 2017–18 and 2018–19. Correlation measures the similarity of two measures such as the EBLP weighted averages and simple averages. Correlation takes on values in the range from -1 to 1 with higher positive values indicating the measures are more similar or, in this case, that growth measures are more stable across time.  
  
Table 3 and Table 4 presents the results for schools and LEAs respectively. Across all groups of schools or LEAs for all student groups, for both mathematics and ELA, the EBLP weighted averages have higher cross year correlation between the two adjacent school years than the simple averages. The improvements in stability tend to be greatest for small schools and LEAs and for small student groups in schools and LEAs. Consequently, the use of the EBLP weighted average would tend to make stability more consistent for both small and large schools and groups. For instance, for SED students in schools, the correlations across group sizes range from 0.12 to 0.40 for the simple averages but range from 0.45 to 0.50 for the EBLP weighted averages. That is, the correlations are both higher and more similar for the EBLP weighted averages than for the simple averages.

Table 3 provides results for schools.

### Table 3. Cross Year Stability of the 2018–19 EBLP Weighted Average and the Simple Average for Schools

| **Student Group** | **Subject** | **2018**–**19 LEA Size1** | **Number of LEAs** | **Correlation between**  **2017–18 and 2018–19 Simple Average** | **Correlation between 2017–18 and 2018–19**  **2-year EBLP** |
| --- | --- | --- | --- | --- | --- |
| All | ELA | 11–29 | 158 | 0.31 | 0.61 |
| All | ELA | 30–149 | 2,171 | 0.30 | 0.45 |
| All | ELA | ≥150 | 5,019 | 0.42 | 0.49 |
| All | Mathematics | 11–29 | 151 | 0.37 | 0.62 |
| All | Mathematics | 30–149 | 2,175 | 0.41 | 0.52 |
| All | Mathematics | ≥150 | 5,016 | 0.58 | 0.62 |
| SED | ELA | 11–29 | 537 | 0.12 | 0.50 |
| SED | ELA | 30–149 | 3,452 | 0.28 | 0.45 |
| SED | ELA | ≥150 | 3,085 | 0.40 | 0.48 |
| SED | Mathematics | 11–29 | 538 | 0.23 | 0.51 |
| SED | Mathematics | 30–149 | 3,457 | 0.37 | 0.49 |
| SED | Mathematics | ≥150 | 3,078 | 0.53 | 0.58 |
| SWD | ELA | 11–29 | 3,221 | 0.04 | 0.38 |
| SWD | ELA | ≥30 | 3,039 | 0.19 | 0.41 |
| SWD | Mathematics | 11–29 | 3,226 | 0.04 | 0.33 |
| SWD | Mathematics | ≥30 | 3,033 | 0.17 | 0.33 |

1. The size bins refer to the number of students within schools with growth scores in grades four through eight in *both* 2017–18 and 2018–19 for the student group and subject of interest (indicated in the first two columns). The number of schools in each bin is smaller than in Table 1, given that not all schools have estimates in both years.

Table 4 provides results for LEAs.

### Table 4. Cross Year Stability of the 2018–19 EBLP Weighted Average and the Simple Average for LEAs

| **Student Group** | **Subject** | **2018**–**19 LEA Size1** | **Number of LEAs** | **Correlation between**  **2017–18 and 2018–19 Simple Average** | **Correlation between**  **2017–18 and 2018–19**  **2-year EBLP** |
| --- | --- | --- | --- | --- | --- |
| All | ELA | 11 – 149 | 200 | 0.32 | 0.56 |
| All | ELA | 150 – 1,499 | 323 | 0.37 | 0.47 |
| All | ELA | ≥1,500 | 299 | 0.65 | 0.67 |
| All | Mathematics | 11 – 149 | 200 | 0.33 | 0.56 |
| All | Mathematics | 150 – 1,499 | 324 | 0.43 | 0.51 |
| All | Mathematics | ≥1,500 | 298 | 0.85 | 0.85 |
| SED | ELA | 11 – 149 | 257 | 0.15 | 0.51 |
| SED | ELA | 150 – 1,499 | 330 | 0.43 | 0.56 |
| SED | ELA | ≥1,500 | 199 | 0.58 | 0.63 |
| SED | Mathematics | 11 – 149 | 257 | 0.25 | 0.51 |
| SED | Mathematics | 150 – 1,499 | 330 | 0.42 | 0.52 |
| SED | Mathematics | ≥1,500 | 199 | 0.74 | 0.76 |
| SWD | ELA | 11 – 29 | 114 | -0.06 | 0.26 |
| SWD | ELA | 30 – 149 | 232 | 0.05 | 0.39 |
| SWD | ELA | ≥150 | 322 | 0.51 | 0.62 |
| SWD | Mathematics | 11 – 29 | 113 | -0.18 | 0.18 |
| SWD | Mathematics | 30 – 149 | 232 | 0.04 | 0.30 |
| SWD | Mathematics | ≥150 | 322 | 0.49 | 0.55 |

1. The size bins refer to the number of students within LEAs with growth scores in grades four through eight in *both* 2017–18 and 2018–19 for the student group and subject of interest (indicated in the first two columns). The number of LEAs in each bin is smaller than in Table 2 given that not all LEAs have estimates in both years.

**Research Question 3**

*To what extent does using* ***two versus three years*** *in the estimation of the EBLP weighted average impact its comparability with the simple average and its gain in stability and accuracy?*There were minimal differences in using the three-year EBLP weighted average (that uses student growth data from the 2015–16, 2017–18, and 2018–19 school years) in place of the two-year EBLP weighted average (that uses student growth data from 2017–18 and 2018–19). The accuracy and the cross-year correlation of the three-year EBLP weighted averages were very similar to the two-year EBLP weighed averages. This was true for both schools and LEAs and all the subjects and student groups considered in the study. The most notable difference was a modest improvement to the accuracy of the three-year EBLP weighted average compared to the two-year EBLP for smaller schools.

### Summary

Overall, the EBLP weighted average outperformed the simple average in terms of improved accuracy and cross-year stability for small and large schools. For LEAs, the EBLP weighted average outperformed the simple average in terms of cross year stability for both small and large schools but outperformed in terms of accuracy only for small LEAs.   
  
Specifically, across the research questions, the study found the following for schools (across the three student groups studied):

* The two-year EBLP weighted averages are more accurate than the simple averages for almost every school, with smaller schools having larger improvements in accuracy than larger schools.
* The two-year EBLP weighted averages increase cross-year correlations for all school sizes compared to the simple average, with largest increases for smaller schools, resulting in more comparable cross-year correlations across school size using the EBLP over the simple average.
* The advantages of EBLP weighted averages, such as improved accuracy and greater stability, are more pronounced when restricting to the SED and SWD student groups than for all students.
* There are minimal differences in using the three-year EBLP weighted average in place of the two-year EBLP weighted average. The most notable difference is improved accuracy of the three-year EBLP weighted average for smaller schools.

For LEAs (across the three student groups studied), the study found:

* For all smaller LEAs, the two-year EBLP weighted average is more accurate than the simple average. However, for a sizeable proportion of larger LEAs, the EBLP weighted average is less accurate than the simple average. This is because the simple average is already very accurate for larger LEAs. Thus, EBLP weighted averages, at best, have limited ability to improve accuracy, and the imprecision in the EBLP weights arising from the relatively small number of LEAs (compared to the number of schools) leads to loss of accuracy for large LEAs.
* The two-year EBLP weighted average increases cross-year correlations for all LEA sizes compared to the simple average, with the largest increases for smaller LEAs. Consequently, the cross-year correlations for the EBLP weighted average are much more similar across LEA size than the simple averages.
* There are minimal differences in using the three-year EBLP weighted average in place of the two-year EBLP weighted average for LEAs.

## Stakeholder Input

ETS and the CDE presented the preliminary EBLP model data to the Technical Design Group (TDG) on August 11, 2020, and CDE presented to the California Practitioners Advisory Group (CPAG) on August 14, 2020. The TDG was encouraged to see how the EBLP was handling the technical issues that had been observed with the simple average RG results. The TDG Recommended ETS further research and explore technical adjustments to the EBLP and present the TDG with updated results in November. The CPAG members were also very encouraged by the EBLP results and noted their appreciation for the diligence by everyone to find a fair and valid solution for California’s individual student growth model. On August 18, 2020, the CDE provided the local control funding formula (LCFF) stakeholders the opportunity to ask questions and provided feedback to the material that was presented to CPAG. The LCFF stakeholders did not provide any feedback.

### References

Lockwood, J. R., Castellano, K. E., & McCaffrey, D. M. (2020). Improving accuracy and stability of aggregate student growth measures using best linear prediction. Unpublished manuscript.

# Attachment 3

## Implementation of California Education Code Section 52064.5

*EC* Section 52064.5 required the State Board of Education (SBE), on or before

October 1, 2016, to adopt evaluation rubrics, known as the California School Dashboard (Dashboard), as a tool to help districts and schools identify strengths and weaknesses and to assist county superintendents in identifying school districts and charter schools in need of technical assistance. The Dashboard reports performance and progress on both state and local measures. The state and local measures are drawn from the ten priority areas of the Local Control Funding Formula (LCFF).

## Local Indicators

The SBE approved standards for the local indicators that support local educational agencies (LEAs) in measuring and reporting their progress within the appropriate priority area. For each local indicator, the performance standards are as follows:

1. Annually measure its progress in meeting the requirements of the specific LCFF priority.
2. Report the results as part of a non-consent item at a regularly scheduled public meeting of the local governing board/body in conjunction with the adoption of the LCAP.
3. Report results to the public through the Dashboard utilizing the SBE-adopted self-reflection tools for each local indicator.

An LEA uses the SBE-adopted self-reflection tools to report its progress through the Dashboard. The collection and reflection on locally available information relevant to progress regarding local priority areas will support LEAs in completing the self-reflection tools, reporting in the Dashboard, and in local planning and improvement efforts.

Provided an LEA satisfies the performance standards for each local indicator, the Dashboard will automatically assign a performance level of Met. If an LEA does not meet the performance standards, the Dashboard will automatically assign a performance level of Not Met or Not Met for Two or More Years, as applicable.

## Overview and Implementation of Senate Bill 75

In 2019, the Omnibus Education Budget Bill, Senate Bill (SB) 75 (Chapter 51, Statutes of 2019), added the following bolded language to *EC* Section 52064.5(c):

(c) As part of the evaluation rubrics, the state board shall adopt state and local indicators to measure school district and individual schoolsite performance in regard to each of the state priorities described in subdivision (d) of Section 52060. **No later than January 31, 2021, local indicators shall reflect school-level data to the extent the department collects or otherwise has access to relevant and reliable school-level data for all schools statewide.**

Additionally, SB 75 amended *EC* Section 52064.5(e)(2) to include the following bolded language related to the Local Control Accountability Plan:

**(2) No later than January 31, 2020, the standards for local indicators shall, at a minimum, ensure that the governing board of a school district, the county board of education, and the governing body of a charter school review any data to be publicly reported for local indicators in conjunction with adoption of the local control and accountability plan pursuant to Section 52062, 52068, or 47606.5, as applicable. No later than January 31, 2021, the standards for local indicators for which the department collects or otherwise has access to relevant and reliable school-level data for all schools statewide shall, to the extent practicable, be based on objective criteria, which may include, but are not necessarily limited to, the extent of any disparities across schoolsites within a school district or county office of education or performance relative to statewide data.**

Based on this language, the California Department of Education (CDE) reviewed the local indicators and one data point from Priority 1, related to the assignment of teachers, and plans to explore further whether this data set meets the criteria outlined in SB 75. Priority 1 relates to Basic Services and Conditions at schools and includes three parts: 1) text books availability, 2) adequate facilities, and 3) correctly assigned teachers.

## Teacher Misassignment Data

The first data set that the CDE has identified may meet the standards under SB 75 for local indicators to “reflect school-level data to the extent the department collects or otherwise has access to relevant and reliable school-level data for all schools statewide”, is the teacher misassignment data set.

The CDE annually collects staffing information through the California Longitudinal Pupil Achievement Data System (CALPADS). This data is matched with data collected by the CTC, which will allow the CDE meet the necessary reporting requirements in California’s Every Student Succeeds Act (ESSA) State Plan. In 2018, the CDE and the CTC signed a data sharing memorandum of understanding (MOU) to formally exchange teacher and credential data. Since that time, the parties have worked on developing an expanded data exchange to allow the CDE to begin reporting on misassignment data at the state, LEA, and school level. The 2019–20 school year is the first year of this expanded data exchange.

As of August 2020, the CDE is continuing to prepare the final data files extracted from the CALPADS Fall 2 collection to provide this information the CTC. These data files will provide essential data elements including staff profile and assignment and course and student enrollment data needed to upload into the California Statewide Assignment Accountability System (CalSAAS). CalSAAS is a (CTC developed) streamlined and partially automated assignment monitoring system that will allow annual monitoring of all schools.

*The CTC anticipates processing the data received by the CDE in two phases:*

**Phase One:** For each assignment present in the initial CALPADS assignment data set, CTC will indicate simply that the educator was properly assigned or misassigned, and if misassigned, in which dimensions.

**Phase Two:** In the second phase of data exchange, the CTC will evaluate the quality of those assignments deemed properly assigned to meet ESSA reporting requirements.

Upon receipt of a complete data set from the CTC that is determined to be valid and reliable, the CDE will publicly report out on this first year of data. The CDE will also begin discussions in 2021 and bring together stakeholders to commence the vetting process on the most appropriate way to report this information on the local indicators and in the pre-populated SARC application.

## Stakeholder Input

The CDE presented the teacher and credentialing data to the California Practitioners Advisory Group (CPAG) on August 14, 2020. There was a question about the review of other local indicators and excitement expressed about the release of this data set by CPAG members.

# Attachment 4

## California School Dashboard Educational Outreach Activities

### Table 1

### California Department of Education Policy Work Group Meetings

| **Date** | **Title** | **Estimated Number of Attendees** | **Topics** |
| --- | --- | --- | --- |
| May 4, 2020 | College/Career Indicator (CCI) Subcommittee | 12 | * Proposed New Career Measures for CCI |
| May 1, 2020 | Alternative Task Force | 9 | * Proposed New Career Measures for CCI |
| July 27, 2020 | CCI Subcommittee | 12 | * Inclusion of State and Federal Job Programs in the CCI |
| August 4, 2020 | Alternative Task Force | 7 | * Inclusion of State and Federal Job Programs in the CCI |
| August 11, 2020 | Technical Design Group (TDG) | 6 | * Student Growth Model: Empirical Best Linear Projection (EBLP) * Communicating the Growth Model: A Graphical Display * Update on the 2020 Dashboard and Reporting of Data * Stability, Consistency, and Reliability of the Dashboard Colors for State Indicators * New Career Measures for Possible Inclusion in the CCI * Suspension Rate Indicator |
| August 14, 2020 | California Practitioners Advisory Committee (CPAG) | 144 | * Update on the 2020 California School Dashboard (Dashboard) and Reporting Requirements * Student Growth Model * Stability of the Five-by-Five Color Grids for the State Indicators * Teacher and Credentialing Data * New Career Measures Proposed for the CCI |

### Table 2

### Virtual Meetings

| **Date** | **Title** | **Estimated Number of Attendees** | **Topics** |
| --- | --- | --- | --- |
| April 9, 2020 | Bilingual Coordinators Meeting | 80 | * Updates on the Differentiated Assistance and Comprehensive Support and Improvement eligibility lists * Elementary and Secondary Education Act Waiver Update |
| May 13, 2020 | Regional Assessment Group | 32 | * Stability of the Current Color Scheme Used for the Five-by-Five Color Grids * New Career Measures for the CCI * Student Growth Model |
| May 15, 2020 | State and Federal Directors Meeting | 223 | * Update on the California School Dashboard Workplan |
| May 19, 2020 | California County Superintendents Educational Services Association | 30 | * New Career Measures for Possible Inclusion in the 2021 Dashboard |
| May 21, 2020 | Ventura County Office of Education | 42 | * Student Growth Model |
| June 19, 2020 | State and Federal Directors Meeting | 208 | * Executive Orders and Federal Waivers​ * Updated California School Dashboard Workplan​ |
| August 18, 2020 | Local Control Funding Formula (LCFF) Stakeholders Meeting | 3 | * Responded to questions related to items presented at the CPAG meeting on August 14 * Provided LCFF stakeholders an opportunity to provided feedback. |
| August 18, 2020 | State Seal of Civic Engagement Workgroup | 15 | * Provided background on the State Seal of Civic Engagement (SSCE) authorizing statute and past SBE discussion and action * Review history of the College and Career Indicator (CCI) Work Group * Discussed what might a CCI-eligible SSCE look like, and the collection and reporting of this data at the student-level |
| August 19, 2020 | 2020 Assessment & Accountability Meeting | 530 | * Update on the progress of developing a growth model |
| August 21, 2020 | State and Federal Directors Meeting | 262 | * Update on the progress of developing a growth model |
| August 26, 2020 | Bilingual Coordinators Meeting | 105 | * Update on the 2020 California School Dashboard (Dashboard) and Reporting of Data * Annual Release of Enrollment Data Related to English Learners (EL), Re-designated Fluent English Proficient (RFEP) students, Long-Term ELs (LTELs), At-Risk LTELs (AR-LTELs) * Update on the English Learner Progress Indicator (ELPI) Workgroup * Update on the EL Student Data Web Page |
| August 26, 2020 | 2020 Assessment & Accountability Meeting | 888 | * Update on the progress of developing a growth model |
| August 27, 2020 | California Association for Bilingual Education Board of Directors | 25 | * Update on the progress of developing a growth model |

### Table 3

### Webinars

| **Date** | **Title** | **Estimated Number of Attendees** | **Topics** |
| --- | --- | --- | --- |
| June 23, 2020 | Criteria for Charter School Renewal under Assembly Bill (AB) 1505 | 370 | * Overview of AB 1505 and the Charter Renewal Process * Performance Categories * Terminology * Criteria for Determining Performance Categories * How Are Student Groups Identified as Performing at or Above/Below the Statewide Average? Steps to Follow for Criterion 2 * Results for High, Middle, and Low Performing Charter Schools * The Gap Year and its Impact on AB 1505 |