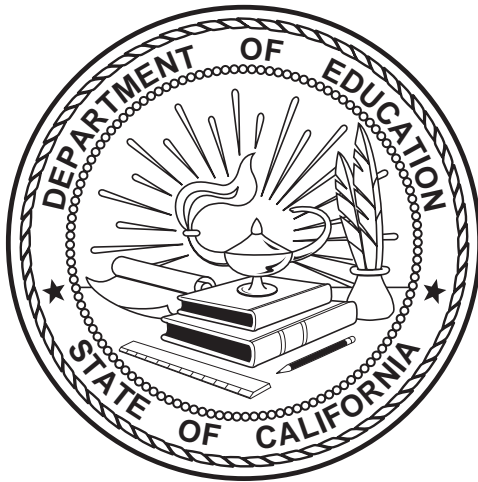


California Department of Education

**Report to the Governor and the Legislature:
2011–12 California Physical Fitness Test Report**



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Assessment Development and Administration Division
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May 2013

Description: This report encompasses the California Physical Fitness Test results from 2008–09, 2009–10, 2010–11, and 2011–12.

Authority: California Education Code Section 60800

Recipient: The Governor and the Legislature

Due Date: December 31, 2012

California Department of Education

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Report to the Governor and the Legislature: 2011–12 California Physical Fitness Test Report

Executive Summary

Pursuant to California *Education Code* Section 60800, all public school districts in California are required to administer the physical fitness test (PFT) annually to all students in fifth, seventh, and ninth grades. The test used for the PFT is the *FITNESSGRAM*,¹ which was designated for this purpose by the State Board of Education. This report, which is required every two years by California *Education Code* Section 60800, summarizes PFT results of the 2011–12 test administration, provides a summary comparison with the results from previous years, and includes the results for selected groups or cohorts of students.

A total of 1,333,849 students were administered the California PFT in spring 2012, representing approximately 94 percent of California public school students enrolled in fifth, seventh, and ninth grades. For the second year in a row, the data show that approximately one-third of the students at the three grades tested are scoring in the Healthy Fitness Zones (HFZs) for all six of the fitness areas tested.

The HFZs changed for Aerobic Capacity and Body Composition in 2010–11. Documentation of HFZ changes can be found on the California Department of Education (CDE) PFT *FITNESSGRAM*: Healthy Fitness Zone Charts Web page at <http://www.cde.ca.gov/ta/tg/pf/healthfitzones.asp>. [Note: the preceding Web address is no longer valid.] For 2011–12, there were no changes to the HFZs.

You can find this report on the CDE Physical Fitness Testing Program Resources Web page at <http://www.cde.ca.gov/ta/tg/pf/pfresources.asp>. [Note: the preceding Web address is no longer valid.] To order a hard copy of the *2011–12 California Physical Fitness Test Report*, please contact Linda Hooper, Education Research and Evaluation Consultant, High School and Physical Fitness Assessment Office, by phone at 916-319-0345 or by e-mail at lhooper@cde.ca.gov. [Note: the preceding email address is no longer valid.]

¹ The *FITNESSGRAM* and Healthy Fitness Zone (HFZ) are registered trademarks of The Cooper Institute.

Introduction

By law (California *Education Code* Section 60800), all local educational agencies (LEAs)² in California are required to administer the physical fitness test (PFT) annually to all students in fifth, seventh, and ninth grades. The test used for the PFT is the *FITNESSGRAM*,³ which is designated for this purpose by the State Board of Education. *Education Code* Section 60800 also requires that all public schools include their results in their School Accountability Report Cards and provide students with their individual results.

This report summarizes results from the spring 2011–12 PFT administration, which was the thirteenth consecutive year of the PFT. It also provides a comparison with the summary results from previous years and includes the results for the classes of 2013, 2014, and 2015 as they moved through grades five, seven, and nine. The data in this report incorporates the 2011–12 results submitted and corrected by LEAs during the third and final data submission and correction window. Therefore, the data in this report may be slightly different from the preliminary results released to the public on November 15, 2012.

Test Description

The *FITNESSGRAM* was developed by The Cooper Institute of Dallas, Texas. A primary goal of this test is to assist students in establishing physical activity as part of their daily lives. In order to help students reach this goal, the *FITNESSGRAM* provides a number of test options so that all students, including students with disabilities, have the maximum opportunity to participate in the test.

The *FITNESSGRAM* is a comprehensive test that assesses three broad components of fitness: 1) aerobic capacity; 2) body composition; and 3) muscular strength, endurance, and flexibility. This third component is further divided into four areas: abdominal strength and endurance, trunk extensor strength and flexibility, upper body strength and endurance, and flexibility. Altogether, the *FITNESSGRAM* covers the following six fitness areas with multiple test options in four of the six areas:

² LEAs include school districts, county offices of education, and charter schools that are independent for assessment purposes (i.e., independent charter schools).

³ The *FITNESSGRAM* and Healthy Fitness Zone (HFZ) are registered trademarks of The Cooper Institute.

- **Aerobic Capacity:** Progressive Aerobic Cardiovascular Endurance Run (PACER), One-Mile Run, or Walk Test
- **Body Composition:** Skinfold Measurements, Bioelectric Impedance Analyzer, or Body Mass Index
- **Abdominal Strength and Endurance:** Curl-Up
- **Trunk Extensor Strength and Flexibility:** Trunk Lift
- **Upper Body Strength and Endurance:** Push-Up, Modified Pull-Up, or Flexed-Arm Hang
- **Flexibility:** Back-Saver Sit and Reach or Shoulder Stretch

For the four fitness areas with multiple test options, the decision about which option(s) to administer is locally determined. If multiple options are administered to students, the option with the best score is reported for the PFT. In 2011–12, the following were the most widely administered test options:

- **Aerobic Capacity:** One-Mile Run (80%)
- **Body Composition:** Body Mass Index (97%)
- **Upper Body Strength and Endurance:** Push-Up (92%)
- **Flexibility:** Shoulder Stretch (58%)

Performance Standards

The *FITNESSGRAM* uses criterion-referenced standards to evaluate fitness performance. These standards represent a level of fitness that offers protection against diseases associated with physical inactivity. Performance on each fitness area is classified into two or three general levels, as follows:

- **Aerobic Capacity and Body Composition**
 - Healthy Fitness Zone
 - Needs Improvement
 - Needs Improvement—High Risk

- **Abdominal Strength and Endurance, Trunk Extensor Strength and Flexibility, Upper Body Strength and Endurance, and Flexibility**
 - Healthy Fitness Zone
 - Needs Improvement

The desired performance goal for each fitness area is the Healthy Fitness Zone or HFZ. This indicates a student's level of fitness, which is considered sufficient for good health. The Needs Improvement or NI designation signifies a fitness area where the student's score is not in the HFZ and where the student would benefit from physical activities designed to improve performance in the designated fitness area to achieve the HFZ. Needs Improvement—High Risk, or NI—HR, specifically indicates increased health risks due to a student's level of fitness. It may be possible for some students to exceed the HFZ; however, The Cooper Institute does not recommend that students exceed the upper limit of the HFZ, as exceeding the HFZ may result in injury to the students. Therefore, the California Department of Education (CDE), consistent with The Cooper Institute, scores a student who exceeds the HFZ as invalid. With one exception, Body Composition, the CDE considers a student who exceeds the HFZ as meeting the HFZ rather than scoring in the Very Lean category.

More detailed information about the *FITNESSGRAM*, the six fitness areas, and the performance standards can be found on the CDE PFT Web page at <http://www.cde.ca.gov/ta/tg/pf/>.

Adjustments to the Physical Fitness Test

Since 2008–09, a number of significant adjustments occurred in the PFT data collection, scoring, and reporting process. It is important to highlight these adjustments, as they may affect the interpretations of the results provided in this report.

State Physical Fitness Test Contractor

In July 2010, the San Joaquin County Office of Education (SJCOE) became the new state PFT contractor. The SJCOE responsibilities include supporting LEAs with their PFT data submission, scoring the data, producing summary and individual student reports, and hosting and maintaining the California PFT Web site at <http://www.pftdata.org/>. The SJCOE took on the responsibility for the PFT contract by completing the 2009–10 data submission and reporting.

Since taking over the contract, the SJCOE instituted new data submission and correction procedures for 2010–11. The new procedures allow LEAs to view and correct data online and to do so within 24 hours of submitting their data through a secure data

submission portal. In addition, the data correction process includes on-screen help and guidance to assist LEAs with the data correction activities. These procedures have been so successful that for 2011–12, the calculated error rate was zero percent.

Calculations Procedures

Beginning with 2010–11, the calculations for two Aerobic Capacity test options (One-Mile Run and PACER) were changed to be reported in terms of VO_2 max.⁴ The third Aerobic Capacity test option, the Walk Test, has always been reported in terms of VO_2 max. These changes ensure the interchangeability of the results from the three test options for comparison purposes. Students can be assessed with any of the three test options, and the result will be based on the same estimate of aerobic capacity or VO_2 max.

Ranges and Healthy Fitness Zones

Also beginning with 2010–11, adjustments were made to the HFZs for Aerobic Capacity and Body Composition. For Aerobic Capacity, the adjustments accounted for gender and age differences in the new VO_2 max reporting. For Body Composition, the adjustments took into account the natural developmental differences of the genders, improved the interchangeability of Body Mass Index values with percent body fat (i.e., Skinfold Measurements and Bioelectric Impedance Analyzer), and provided for the identification of students at risk for metabolic syndrome. (Metabolic syndrome is an indicator of current and future health risk and includes a variety of factors such as high blood pressure, high triglycerides, and a large waist circumference.)

Results

As indicated in the introduction, this report provides summary results from the spring 2012 (i.e., 2011–12 school year) PFT administration and provides comparisons with the results from previous years. It begins with Table 1, which shows the total numbers of students in fifth, seventh, and ninth grades who were partially or fully tested with the PFT across the last four years. This table reveals a slight increase in the percentage of students tested in 2012.

⁴ VO_2 max refers to the maximum oxygen consumption of an individual during exercise. The acronym is derived from V = volume per time; O_2 = oxygen; and max = maximum.

Table 1. Number of Students Tested by Grade

Year	Grade 5	Grade 7	Grade 9	Total Tested	Total Enrolled ¹	Percent of Students ²
2009	454,281	456,447	470,230	1,380,958	1,485,804	92.9
2010	447,863	444,024	454,905	1,346,792	1,451,668	92.8
2011	456,409	444,072	447,012	1,347,493	1,452,386	92.4
2012	450,104	441,706	442,039	1,333,849	1,418,912	94.0

¹ Total enrolled taken from California Basic Educational Data System (CBEDS) and California Longitudinal Pupil Achievement Data System (CALPADS) Fall 1 enrollment reports.

² Percent of total California public school students enrolled in fifth, seventh, and ninth grades who took the PFT.

Tables 2 through 4 provide four-year summaries of the PFT results organized by grade. The percentage of students in the HFZ for each fitness area is presented. In order to permit comparisons across the four years, the tables only include the percentages of students achieving the HFZ. The percentage of students not achieving the HFZ (i.e., NI or NI—HR) may be calculated by subtracting the percentages presented in the table from 100 percent.

Table 2. Percentages of Fifth Grade Students in Healthy Fitness Zone by Fitness Area

Fitness Area	2009	2010	2011	2012	Percentage Point Change 2012 to 2011	Percentage Point Change 2012 to 2009
Aerobic Capacity ¹	65.7	65.4	61.4	62.4	1.0	-3.3
Body Composition ¹	68.4	68.5	52.1	52.5	0.4	-15.9
Abdominal Strength	80.1	79.4	78.9	78.0	-0.9	-2.1
Trunk Extensor Strength	88.2	88.2	87.4	86.8	-0.6	-1.4
Upper Body Strength	69.8	69.5	69.0	68.1	-0.9	-1.7
Flexibility	70.8	71.1	70.9	71.1	0.2	0.3

¹ HFZs changed for Aerobic Capacity and Body Composition in 2011. Documentation of HFZ changes can be found on the CDE *PFT FITNESSGRAM* Healthy Fitness Zone Charts Web page at <http://www.cde.ca.gov/ta/tg/pf/healthfitzones.asp>. [Note: the preceding Web address is no longer valid.]

**Table 3. Percentages of Seventh Grade Students
in Healthy Fitness Zone by Fitness Area**

Fitness Area	2009	2010	2011	2012	Percentage Point Change 2012 to 2011	Percentage Point Change 2012 to 2009
Aerobic Capacity ¹	66.1	67.1	63.0	63.6	0.6	-2.1
Body Composition ¹	68.7	68.8	55.5	55.4	-0.1	-13.3
Abdominal Strength	84.8	85.3	85.1	84.4	-0.7	-0.4
Trunk Extensor Strength	90.1	90.3	90.2	89.5	-0.7	-0.6
Upper Body Strength	71.8	72.7	72.2	71.9	-0.3	0.1
Flexibility	77.4	78.7	79.1	79.6	0.5	2.2

¹ HFZs changed for Aerobic Capacity and Body Composition in 2011. Documentation of HFZ changes can be found on the CDE *PFT FITNESSGRAM* Healthy Fitness Zone Charts Web page at <http://www.cde.ca.gov/ta/tg/pf/healthfitzones.asp>. [Note: the preceding Web address is no longer valid.]

**Table 4. Percentages of Ninth Grade Students
in Healthy Fitness Zone by Fitness Area**

Fitness Area	2009	2010	2011	2012	Percentage Point Change 2012 to 2011	Percentage Point Change 2012 to 2009
Aerobic Capacity ¹	63.0	64.1	61.7	62.4	0.7	-0.6
Body Composition ¹	69.8	71.3	59.4	59.0	-0.4	-10.8
Abdominal Strength	86.0	87.0	87.2	87.0	-0.2	1.0
Trunk Extensor Strength	90.7	91.7	92.0	91.4	-0.6	0.7
Upper Body Strength	76.8	77.4	77.3	76.6	-0.7	-0.2
Flexibility	81.0	82.7	83.7	84.0	0.3	3.0

¹ HFZs changed for Aerobic Capacity and Body Composition in 2011. Documentation of HFZ changes can be found on the CDE *PFT FITNESSGRAM* Healthy Fitness Zone Charts Web page at <http://www.cde.ca.gov/ta/tg/pf/healthfitzones.asp>. [Note: the preceding Web address is no longer valid.]

Table 5 provides the percentage of students in the NI—HR category for Aerobic Capacity and Body Composition fitness areas. Remember, students classified in the High Risk category may have increased health risks (e.g., Type II diabetes, high cholesterol) due to the student’s level of fitness.

Table 5. Comparison of 2011 and 2012 Percentage of Grade Five, Seven, and Nine Students in Needs Improvement—High Risk (NI—HR) by Fitness Areas

Fitness Areas	2011 Percent of Grade 5 Students in NI—HR ¹	2012 Percent of Grade 5 Students in NI—HR ¹	Percentage Point Change 2012 to 2011 Grade 5	2011 Percent of Grade 7 Students in NI—HR ¹	2012 Percent of Grade 7 Students in NI—HR ¹	Percentage Point Change 2012 to 2011 Grade 7	2011 Percent of Grade 9 Students in NI—HR ¹	2012 Percent of Grade 9 Students in NI—HR ¹	Percentage Point Change 2012 to 2011 Grade 9
Aerobic Capacity	8.1	8.0	-0.1	11.7	11.5	-0.2	12.8	12.9	0.1
Body Composition	34.2	33.9	-0.3	30.3	30.3	0.0	25.0	25.3	0.3

¹ Aerobic Capacity and Body Composition fitness areas have an additional performance standard, NI—HR. Students in this area have the potential for future health problems. The need for increased activity and eating a healthy controlled diet is more urgent for students in this category than those students in the NI category. Healthy Fitness Zone standards applied to the fitness areas are located on the CDE PFT Program Resources web page at <http://www.cde.ca.gov/ta/tg/pf/pftresources.asp>. [Note: the preceding Web address is no longer valid.]

Explanation of table contents: Line 1 shows the percentage of students who scored in the NI—HR for the Aerobic Capacity fitness area and the percentage point change from 2012 and 2011. Line 2 shows the percentage of students who scored in the NI—HR for the Body Composition fitness area and the percentage point change from 2012 and 2011. A positive percent change indicates there are more students in the NI—HR category. The desired results are a negative percentage point change indicating fewer students in the NI—HR category.

The PFT performance goal is for students to achieve the HFZ for all six fitness areas tested (i.e., six-out-of-six fitness areas in the HFZ). Table 6 displays the percentages of students by grade achieving this goal. The 2012 PFT results

show that 25.4 percent of the students in grade five, 31.9 percent of the students in grade seven, and 36.5 percent of the students in grade nine scored within the HFZ for all six fitness areas of the test.

Table 6. Percentage of Fifth, Seventh, and Ninth Grade Students in the Healthy Fitness Zone for Six-Out-of-Six Fitness Areas

Grade	2009	2010	2011 ¹	2012 ¹	Percentage Point Change 2012 ¹ to 2011	Percentage Point Change 2012 ¹ to 2009
Grade 5	29.2	29.0	25.2	25.4	0.2	-3.8
Grade 7	34.2	35.0	32.1	31.9	-0.2	-2.3
Grade 9	37.9	38.7	36.8	36.5	-0.3	-1.4

¹ New 2011 standards applied to Aerobic Capacity and Body Composition fitness areas are located on the CDE PFT Program Resources Web page at <http://www.cde.ca.gov/ta/tg/pf/pftresources.asp>
[Note: the preceding Web address is no longer valid.]

Tables 7 and 8 display the fitness area and number of fitness areas in the HFZ results by class or cohort. The students in the class of 2013 were administered the PFT in grade five in 2006, in grade seven in 2008, and in grade nine in 2010. The students in the class of 2014 were administered the PFT in 2007, 2009, and 2011 for grades five, seven, and nine, respectively. Finally, students in the class of 2015 were administered the PFT in grade five in 2008, in grade seven in 2010, and in grade nine in 2012.

Table 7 results show each class improved in four of the six fitness areas: Abdominal Strength, Trunk Extensor Strength, Upper Body Strength, and Flexibility. The grade nine students from classes of 2014 and 2015 showed a decline in both the Aerobic Capacity and Body Composition fitness areas; however, note the HFZ standards changed in those two fitness areas beginning with the 2011 administration.

Table 8 results display the percentage of students from each class by the number of fitness areas in the HFZ. Each class displays an increase in the number of student who scored in the HFZ in six out of six fitness areas even though the HFZ standards changed for the Aerobic Capacity and Body Composition fitness areas.

Table 7. Percentage of Grade Five, Seven, and Nine Students in Healthy Fitness Zone^{1, 2} (HFZ) by Fitness Areas for Classes 2013, 2014, and 2015

Fitness Areas	Class of 2013 Grade 5 Percent of Students In HFZ	Class of 2013 Grade 7 Percent of Students In HFZ	Class of 2013 Grade 9 Percent of Students In HFZ	Class of 2014 Grade 5 Percent of Students In HFZ	Class of 2014 Grade 7 Percent of Students In HFZ	Class of 2014 Grade 9 Percent of Students In HFZ	Class of 2015 Grade 5 Percent of Students In HFZ	Class of 2015 Grade 7 Percent of Students In HFZ	Class of 2015 Grade 9 Percent of Students In HFZ
Aerobic Capacity	60.2	63.8	64.1	62.7	66.1	61.7 ³	64.2	67.1	62.4 ³
Body Composition	67.4	68.4	71.3	67.9	68.7	59.4 ⁴	68.4	68.8	59.0 ⁴
Abdominal Strength	80.6	84.6	87.0	80.2	84.8	87.2	80.6	85.3	87.0
Trunk Extensor Strength	88.2	89.9	91.7	87.9	90.1	92.0	88.2	90.3	91.4
Upper Body Strength	67.1	71.2	77.4	68.5	71.8	77.3	69.6	72.7	76.6
Flexibility	66.6	76.3	82.7	68.1	77.4	83.7	69.6	78.7	84.0

¹ Healthy Fitness Zone is a registered trademark of The Cooper Institute.

² Healthy Fitness Zone standards applied to the fitness areas are located on the CDE PFT Program Resources Web page at <http://www.cde.ca.gov/ta/tg/pf/pftresources.asp>. [Note: the preceding Web address is no longer valid.]

³ In 2011, The Cooper Institute changed the standards for the Aerobic Capacity fitness area. The Aerobic Capacity fitness area calculates an estimated VO₂max (i.e., aerobic capacity) based upon student's age, gender, time or laps, and Body Mass Index.

⁴ In 2011, The Cooper Institute changed the standards for the Body Composition fitness area to take into account differences in gender and maturation.

Table 8. Percentage of Grade Five, Seven, and Nine Students by the Number of Fitness Areas in the Healthy Fitness Zone^{1, 2} (HFZ) for Classes 2013, 2014, and 2015

Number of Fitness Areas in the HFZ	Class of 2013 Grade 5 Percent of Students In HFZ	Class of 2013 Grade 7 Percent of Students In HFZ	Class of 2013 Grade 9 Percent of Students In HFZ	Class of 2014 Grade 5 Percent of Students In HFZ	Class of 2014 Grade 7 Percent of Students In HFZ	Class of 2014 Grade 9 Percent of Students In HFZ ³	Class of 2015 Grade 5 Percent of Students In HFZ	Class of 2015 Grade 7 Percent of Students In HFZ	Class of 2015 Grade 9 Percent of Students In HFZ ³
6 of 6	25.6	32.9	38.7	27.1	34.2	36.8	28.5	35.0	36.5
5 of 6	26.4	26.4	27.4	26.3	26.5	22.6	26.6	26.8	22.9
4 of 6	20.5	18.1	15.9	20.2	17.8	19.3	19.6	17.8	19.1
3 of 6	14.0	12.1	9.6	13.7	11.5	12.2	13.2	11.2	12.0
2 of 6	8.2	6.6	5.0	8.0	6.4	5.9	7.7	6.1	6.0
1 of 6	3.7	2.8	2.2	3.6	2.7	2.4	3.4	2.5	2.5
0 of 6	1.5	1.1	1.1	1.2	1.0	0.9	1.0	0.7	1.0

¹ Healthy Fitness Zone is a registered trademark of The Cooper Institute.

² Healthy Fitness Zone standards applied to the fitness areas are located on the CDE PFT Program Resources Web page at <http://www.cde.ca.gov/ta/tg/pf/pftresources.asp>. [Note: the preceding Web address is no longer valid.]

³ In 2011, The Cooper Institute changed the standards for the Aerobic Capacity and Body Composition fitness areas.

Summary and Implications

Full and complete public access to the summary data is available on the CDE PFT Web page at <http://www.cde.ca.gov/ta/tg/pf/>. This Web page provides access to summary reports for the state and every county, school district, and school that has students in fifth, seventh, and ninth grades and reported PFT data.

Although the results from tracking groups or cohorts of students over the years (i.e., Tables 7 and 8) reveal improvements in physical fitness, current and past data continue to show that about one-third of California's students at the three grades tested are meeting the performance goals established for the PFT. As noted by State Superintendent of Public Instruction Tom Torlakson in his November 15, 2012, public release, these results point to a "tremendous public health challenge" in California, which is also reflective of the nation as a whole. The data suggest that many students could benefit from greater emphasis in all areas of physical fitness, especially aerobic capacity and body composition.

Schools, school districts, county offices of education, and charter school administrators along with teachers, parents, and guardians are encouraged to regularly examine the PFT data to get a more complete picture of the yearly fitness levels of their students and children. LEAs are encouraged to use the data they receive from the PFT to review, identify needs of, and make improvements to their physical education programs. Schools, parents, and guardians are encouraged to work together to use the information to inform plans and strategies to improve the physical activity opportunities offered to students during and outside of the regular school day. By working together, educators, parents, and guardians can make a difference in improving the fitness and overall wellness of California's students.

All stakeholders are also encouraged to take advantage of initiatives and programs designed to promote awareness and make changes in student health and fitness. Superintendent Torlakson launched the Team California for Healthy Kids effort, which has the major goal of making the healthy choice the easy choice. This initiative includes promoting healthy eating and increasing daily physical activity for all students. Combined with local efforts, collaboration among all stakeholders is the key to effectively increasing the health-related physical fitness of all California students.