

2008 California Physical Fitness Test

**Report to the Governor
and the Legislature**

**Prepared by
California Department of Education**

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Introduction

In spring 2008, physical fitness testing was conducted in California public schools in grades five, seven, and nine. The test used for physical fitness testing is the *FITNESSGRAM*[®], designated for this purpose by the State Board of Education. This report summarizes results of the 2008 test administration and provides a summary comparison with the results from 2006 and 2007.

Background

Education Code Section 60800 specifies that the California Department of Education (CDE) shall compile the results of the physical performance test and submit a report every two years, by December 31, to the Governor and the Legislature. This report fulfills that statute.

Description of the Test

The *FITNESSGRAM*[®] was developed by The Cooper Institute in Dallas, Texas with the primary goal of assisting students in establishing physical activity as part of their daily lives. Because of this goal, the *FITNESSGRAM*[®] provides a number of performance options so that all students, including those with special needs, have the maximum opportunity to participate.

Physical fitness testing consists of three broad components of fitness: 1) aerobic capacity, 2) body composition, and 3) muscular strength, endurance, and flexibility. The third component is further divided into four areas: abdominal strength and endurance, trunk extensor strength and flexibility, upper body strength and endurance, and flexibility. To ensure comprehensive measurement of all components, the *FITNESSGRAM*[®] is comprised of the following six fitness areas with multiple performance options in four of the six areas:

- **Aerobic Capacity** – Progressive Aerobic Cardiovascular Endurance Run (PACER), One-Mile Run, or Walk Test
- **Body Composition** – Skinfold Measurements, Body Mass Index, or Bioelectric Impedance Analyzer
- **Abdominal Strength and Endurance** – Curl-Up
- **Trunk Extensor Strength and Endurance** – 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

More detailed information regarding the *FITNESSGRAM*[®], the six fitness areas, and the performance criteria can be found on the CDE Physical Fitness Testing Web page at <http://www.cde.ca.gov/ta/tg/pf/>.



Fitness Criteria

The *FITNESSGRAM*® uses criterion standards to evaluate fitness performance. These criterion standards represent a level of fitness that offers a degree of protection against diseases resulting from physical inactivity. Performance on each of the fitness-area tests is classified into two general levels:

- Healthy Fitness Zone
- Needs Improvement (i.e., not in the Healthy Fitness Zone)

The desired performance goal for each fitness-area test is the Healthy Fitness Zone (HFZ). Test results within the HFZ reflect reasonable levels of physical fitness that can be attained by most students. All students should strive to achieve a score within the HFZ for each fitness-area test. (Note: It is possible that some students' scores exceed the HFZ. CDE considers these scores to be within the HFZ.)

Results of 2008 Testing

A total of 1,371,411 students were administered the California Physical Fitness Test (PFT) in 2008, representing approximately 91 percent of California public school students enrolled in grades five, seven, and nine.

Tables 1 and 2 provide an overall summary of the results of the 2008 PFT by grade. The percent of students in the Healthy Fitness Zone (HFZ) for each fitness area is presented in Table 1, and the percent of students meeting the HFZ criteria by the number of physical fitness areas is presented in Table 2. Both tables include comparison data from 2006 and 2007.

Table 1: Percentage of Students in the Healthy Fitness Zone by Fitness Area (2006-08)

Physical Fitness Area	Grade 5			Grade 7			Grade 9		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
Aerobic Capacity	60.2	62.7	64.2	60.5	62.2	63.8	52.4	55.5	60.5
Body Composition	67.4	67.9	68.4	67.0	67.7	68.4	68.0	68.7	69.7
Abdominal Strength	80.6	80.2	80.6	83.1	83.5	84.6	82.6	84.0	86.2
Trunk Extensor Strength	88.2	87.9	88.2	89.3	89.6	89.9	86.3	87.9	90.1
Upper Body Strength	67.1	68.5	69.6	68.7	70.1	71.2	69.5	72.2	75.3
Flexibility	66.6	68.1	69.6	72.4	73.9	76.3	70.3	73.6	79.2

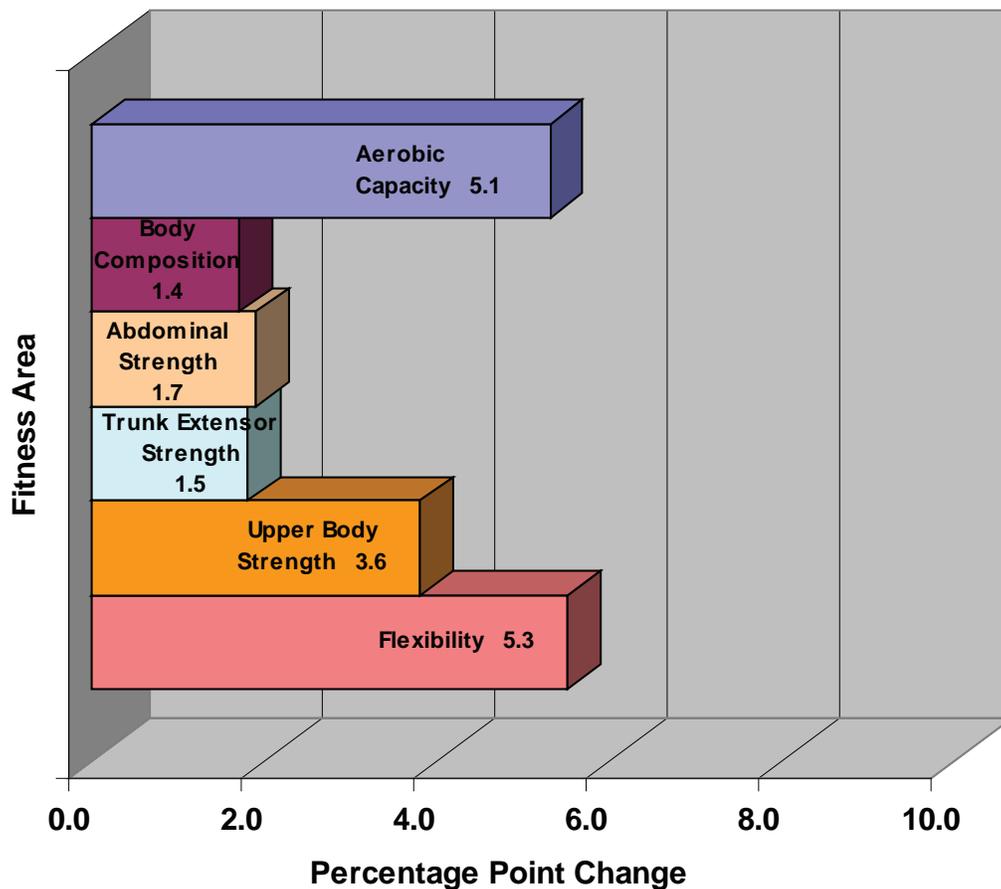


As summarized in the bullet points below,* the data in Table 1 indicate that while a majority of students across all grades tested met minimum fitness levels for each area in 2008, a notable percentage of students did not.

- Aerobic Capacity: 61-64 percent of students were in the HFZ
- Body Composition: 68-70 percent of students were in the HFZ
- Abdominal Strength: 81-86 percent of students were in the HFZ
- Trunk Extensor Strength: 88-90 percent of students were in the HFZ
- Upper Body Strength: 70-75 percent of students were in the HFZ
- Flexibility: 70-79 percent of students were in the HFZ

Of the six fitness areas tested, overall scores for Trunk Extensor Strength in 2008 were the highest (average percent in the HFZ = 89.4 percent), while overall scores for Aerobic Capacity were the lowest (average percent in the HFZ = 62.8 percent).

Figure 1: Average Change in the Percentage of Students in Grades Five, Seven, and Nine in the Healthy Fitness Zone by Fitness Area (2006-08)



*The figures shown in the bullet points have been rounded to the nearest percent.



From 2006 to 2008, there was an increase in the percentage of students in the HFZ in all six physical fitness areas and across all three grades combined. As shown in Figure 1, the largest increases in the overall percentage of students in the HFZ between 2006 and 2008 were for Flexibility (average change = 5.3 percentage points) and Aerobic Capacity (average change = 5.1). The smallest increases between 2006 and 2008 were for Trunk Extensor Strength (average change = 1.5 percentage points) and Body Composition (average change = 1.4 percentage points).

Table 2: Percentage of Students by Number(s) of Areas in the Healthy Fitness Zone (2006-08)

Number of Areas in the Healthy Fitness Zone	Grade 5			Grade 7			Grade 9		
	2006	2007	2008	2006	2007	2008	2006	2007	2008
6 of 6	25.6	27.1	28.5	29.6	30.9	32.9	27.4	30.1	35.6
5 of 6	26.4	26.3	26.6	26.1	26.2	26.4	26.4	26.5	27.1
4 of 6	20.5	20.2	19.6	19.2	19.1	18.1	19.4	19.2	16.9
3 of 6	14.0	13.7	13.2	12.9	12.5	12.1	12.7	12.2	10.3
2 of 6	8.2	8.0	7.7	7.3	7.0	6.6	6.8	6.3	5.4
1 of 6	3.7	3.6	3.4	3.1	3.0	2.8	3.3	2.9	2.5

NOTE: Columns may not add up to 100 percent due to rounding.

The PFT performance goal is to achieve the HFZ for all six fitness areas tested. As shown in Table 2, between 29 and 36 percent of students met this goal in 2008.

- Grade Five: 28.5 percent of students achieved the HFZ in six areas
- Grade Seven: 32.9 percent of students achieved the HFZ in six areas
- Grade Nine: 35.6 percent of students achieved the HFZ in six areas

The corollary outcome of these findings is that approximately 68 percent of public school students have not met the HFZ for all six fitness areas.



Figure 2: Change in the Percentage of Students in Six of Six Healthy Fitness Zones by Grade (2006-08)

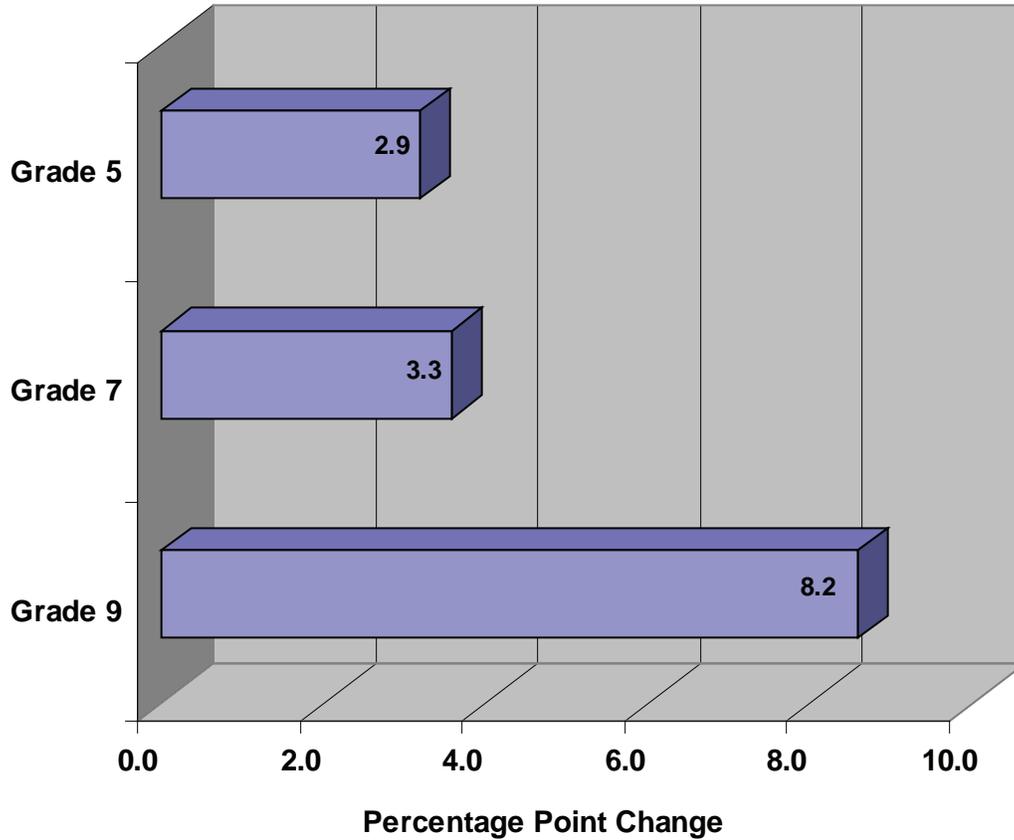


Figure 2 shows the 2006-08 changes in the percentage of students achieving the HFZ in six of six areas by grade. All grades tested showed an increase over this period.

- Grade Five: increased 2.9 percentage points
- Grade Seven: increased 3.3 percentage points
- Grade Nine: increased 8.2 percentage points



Summary and Implications

This is the ninth year that quality data about the fitness of California’s youth has been reported. Full and complete public access to the summary data is available the CDE Physical Fitness Testing 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.

Current data show that while gains continue to be made from year-to-year, a minority of California students at the three grades tested are meeting the performance goal established for the PFT. There remains much work to do to ensure high levels of fitness for students in California. All students could benefit from a greater emphasis on areas of physical fitness, especially aerobic capacity, body composition, upper body strength, and flexibility.

School and district administrators, teachers, parents, and guardians can examine the data to get a more complete picture of the yearly fitness levels of their students and children. School districts and schools are encouraged to use the data they receive from this test to examine and make important changes to their physical education programs. Schools and parents and guardians have the opportunity to work together to use this information to inform plans and strategies to improve the physical activity opportunities offered to students during and outside of the regular school day. Collaboration among educators and families is key to effectively increasing the health-related physical fitness of all California’s students.