The Obesity Epidemic in Children – An Alarming Trend
How is Obesity Determined?
Body Mass Index

BMI = \frac{\text{Weight in pounds}}{\text{Height in inches} \times \text{Height in inches}} \times 703

OR

PERCENT BODY FAT as determined by skinfold measurements

Obese: Top 5 percentile
Overweight: Top 15 percentile
Proportion of Overweight Children in the United States

<table>
<thead>
<tr>
<th>Year Range</th>
<th>6-12-year-olds</th>
<th>12-19-year-olds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1963-1970</td>
<td>4.2%</td>
<td>0%</td>
</tr>
<tr>
<td>1976-1980</td>
<td>6.5%</td>
<td>5%</td>
</tr>
<tr>
<td>1999-2000</td>
<td>15.3%</td>
<td>4.6%</td>
</tr>
<tr>
<td>2000-2004</td>
<td>18.8%</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>15.5%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control and Prevention, 2003.
“… obesity rates for children 6 to 11 years old are estimated to have increased from 15.1 to 18.8 percent between 1999 and 2004. The Department of Health and Human Services estimates that 20 percent of children and youth in the United States will be obese by 2010.

“… According to one estimate, insured children treated for obesity are approximately three times more expensive for the health system than the average insured child.”

— USGAO, “Childhood Obesity and Physical Activity,” Dec. 6, 2006
# States with Highest Obesity Rate

(Children 10 – 17 Years)

<table>
<thead>
<tr>
<th>Ranking</th>
<th>State</th>
<th>% of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>District of Columbia</td>
<td>22.8</td>
</tr>
<tr>
<td>6</td>
<td>Texas</td>
<td>19.1</td>
</tr>
<tr>
<td>8</td>
<td>Mississippi</td>
<td>17.8</td>
</tr>
</tbody>
</table>

### Obesity Among Texas Children (Overweight & Obese), 2005

<table>
<thead>
<tr>
<th>Grade</th>
<th>4th Grade</th>
<th>8th Grade</th>
<th>11th Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42 %</td>
<td>39 %</td>
<td>36 %</td>
</tr>
</tbody>
</table>

70 % of these children will become obese as adults.

*Source: Texas Comptroller of Public Accounts and U.S. Centers for Disease Control and Prevention
Texas Medicine, June 2007, p. 24*
There is an epidemic of adult-onset diabetes being seen in children. It is estimated that among children born after the year 2000:

- 1 out of 3 children will develop diabetes (higher in Hispanics and African-Americans)

If they develop adult-onset diabetes before 14 years of age, it is estimated that that will shorten their lifespan by 17 to 27 years. As a result, this may be the first generation in which parents live longer than their children.
Stanford Achievement Test
Ninth Edition
(SAT-9)
2004
FITNESSGRAM® Tests

AEROBIC CAPACITY

#1 PACER (Progressive Aerobic Cardiovascular Endurance Run)

Set to music, a paced, 20-meter shuttle run increasing in intensity as time progresses.

Or:

- **One-Mile Run**
  Students run (or walk if needed) one mile as fast as they can.

- **Walk Test**
  Students walk one mile as fast as they can (for ages 13 or above since the test has only been validated for this age group).
FITNESSGRAM® Tests

BODY COMPOSITION

#2 Skin Fold Test

Measuring percent body fat by testing the triceps and calf areas.

Or:

• **Body Mass Index (BMI)**
  Calculated from height and weight
#3 Curl-Up

Measuring abdominal strength and endurance, students lie down with knees bent and feet unanchored.

Set to a specified pace, students complete as many repetitions as possible to a maximum of 75.
FITNESSGRAM® Tests
MUSCULAR STRENGTH AND ENDURANCE

#4 Trunk Lift

Measuring trunk extensor strength, students lie face down and slowly raise their upper body long enough for the tester to measure the distance between the floor and the student’s chin.
#5 Push-Up

Measuring upper body strength and endurance, students lower body to a 90-degree elbow angle and push up. Set to a specific pace, students complete as many repetitions as possible.

Or:

- **Modified Pull-Up (proper equipment required)**
  With hands on a low bar, legs straight and feet touching the ground, students pull up as many repetitions as possible.

- **Flexed Arm Hang**
  Students hang their chin above a bar as long as possible.
#6 Back-Saver Sit and Reach

Testing one leg at a time, students sit with one knee bent and one leg straight against a box and reach forward.

Or:

- **Shoulder Stretch**
  With one arm over the shoulder and one arm tucked under behind the back, students try to touch their fingers and then alternate arms.
FITNESSGRAM Parent Reports explains the importance of fitness and physical activity to parents.

Each of the three areas of health-related fitness are explained, and the report gives parents their child’s score for each test given.

The parent report gives more information about the relevance of the healthy fitness zones and the importance of daily physical activity.

FITNESSGRAM also provides a record of students height, weight, and current and previous test dates.

Current and past scores are included in the report so students can observe their improvement over time.
Age-Adjusted All-Cause Mortality by Fitness Groups, Men

Rationale for Using 80 Percentile as Being the Healthy Fitness Zone

- Fitness determined by age-adjusted treadmill times
- 13,600 healthy men followed for 8.6 years

Source: JAMA, Nov. 3, 1989
### FITNESSGRAM Standards for Healthy Fitness Zone*
#### Revision 8.x

**11-Year-Old Girls**

<table>
<thead>
<tr>
<th>Test</th>
<th>Lower End</th>
<th>Upper End</th>
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</thead>
<tbody>
<tr>
<td><strong>One-Mile Run (min:sec)</strong></td>
<td>12:00</td>
<td>9:00</td>
</tr>
<tr>
<td><strong>20-Meter PACER (# laps)</strong></td>
<td>15</td>
<td>41</td>
</tr>
<tr>
<td><strong>Percent Fat</strong></td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td><strong>Body Mass Index</strong></td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td><strong>Curl-Up (# completed)</strong></td>
<td>15</td>
<td>29</td>
</tr>
<tr>
<td><strong>Trunk Lift (inches)</strong></td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td><strong>90º Push-Up (# completed)</strong></td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td><strong>Back Saver Sit &amp; Reach (inches)</strong></td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

*Number on left is lower end of HFT; number on right is upper end of HFZ.

** Test scored Pass/Fail; must reach this distance to pass.
FITNESSGRAM®/ACTIVITYGRAM® across the United States

Each dot on this map represents a FITNESSGRAM®/ACTIVITYGRAM® purchase (some dots represent multiple purchases). More than 30,000 FITNESSGRAM®/ACTIVITYGRAM® licenses and more than 68,000 copies of the test administration manual have been sold.
2004 CST* Scores in Math by Number of Fitness Standards

Grade 5 – 371,198 Students
Grade 7 – 366,278 Students
Grade 9 – 63,028 Students**

*California Standards Test
** Grade 9 Students who took CST geometry

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005
2004 CST* Scores in English-Language Arts by Number of Fitness Standards

Grade 5 – 371,198 Students
Grade 7 – 366,278 Students
Grade 9 – 298,910 Students

*California Standards Test

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005
2004 CST* Scores in English-Language Arts in Grade 5
By Gender and Number of Fitness Standards

371,198 Students
(182,287 Female and 188,921 Male)

*California Standards Test
Results using math scores were consistent with those using English-Language Arts scores.
Results for seventh- and ninth-grade students were consistent with those for fifth graders.

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005
2004 CST* Scores in English-Language Arts in Grade 5 by Socioeconomic Status** and Number of Fitness Standards

371,198 Students (203,726 NSLP and 167,472 Non-NSLP)

*California Standards Test
**National School Lunch Program
Results using math scores were consistent with those using English-Language Arts scores.
Results for seventh- and ninth-grade students were consistent with those for fifth graders.

Source: California Physical Fitness Test, 2004 Results, Calif. Dept. of Ed., April 2005
California Annual Fitness Test (2006)

Results: Grades 5, 7 and 9 - 1.3 million students

- Only 25% of students could pass all 6 of the Fitnessgram tests.
- 43% could not run or walk 1 mile in the allotted time.
- Budget 2006 allows an extra $40 million for physical education teachers
- $500 million for fitness supplies and physical education teacher training
2006 TAKS Scores in Reading and Math
Austin, Texas ISD
8189 5th and 7th Grade Students

Source: DPE Publication Number 06.07 2/16/07
2006 TAKS Reading Scores by Ethnicity
Austin, Texas ISD
8,189 5th and 7th Grade Students

Source: DPE Publication Number 06.07  2/16/07
2006 TAKS Math Scores by Ethnicity
Austin, Texas ISD
8189 5th and 7th Grade Students

Source: DPE Publication Number 06.07 2/16/07
2007 Grades in Reading and Math
Dallas ESD
224 Students, Ages 9 - 15 Years

Categories 0, 1 & 2 are empty
### Episcopal School of Dallas

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Duration</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 3 – K</td>
<td>25 minutes</td>
<td>2 x / week</td>
</tr>
<tr>
<td>Grades 1 – 4</td>
<td>30 minutes</td>
<td>5 x / week</td>
</tr>
<tr>
<td>Grades 5 – 6</td>
<td>45 minutes (concentrating on physical fitness and motor skills)</td>
<td>5 x / week</td>
</tr>
<tr>
<td>Grades 7 – 8</td>
<td>45 minutes (P.E. classes can be replaced with a sport, either team or individual.)</td>
<td>5 x / week</td>
</tr>
<tr>
<td>Grades 9 – 12</td>
<td>6 trimesters over 4 years, but all students are encouraged to participate in daily activities. Athletic participation will be given credit as a P.E. class. All athletic teams meet for 2 hours and 15 minutes daily.</td>
<td>5 x / week</td>
</tr>
</tbody>
</table>
Early-Onset Obesity and Its Effect on I.Q.

Prader-Willi Syndrome* (19 children & 5 adults)

*Prader-Willi Syndrome is a genetic deficiency which causes marked obesity before age 6.

Sibling Groups:
- 150% Ideal Weight before age 6 (18 children & adults)
- Normal Weight (24 children & adults)

“… discovered a link between marked obesity in toddlers and lower IQ scores, cognitive delays, and brain lesions similar to those seen in Alzheimer’s disease patients.”

"... emerging research showing that physical activity sparks biological changes that encourage brain cells to bind to one another. For the brain to learn, these connections must be made."

"... exercise provides an unparalleled stimulus, creating an environment in which the brain is ready, willing, and able to learn."

"Exercise is fertilizer for the brain."

Fitnessgram Results:
Percentage of Students in Healthy Fitness Zone

Woodland Elementary School, Kansas City PSD #33
Fall 2005 – Spring 2006, Grades 4 and 5

- Modified Sit & Reach: Fall 2005 - 13.5%, Spring 2006 - 21.6%, Increase: 60%
- Push-Up: Fall 2005 - 16.5%, Spring 2006 - 31.1%, Increase: 88%
- Paced Curl-Up: Fall 2005 - 12.4%, Spring 2006 - 28.1%, Increase: 127%
- Pacer Test (Cardiovascular Fitness): Fall 2005 - 19.4%, Spring 2006 - 59.6%, Increase: 207%
- Flexibility Test: Fall 2005 - 4.5%, Spring 2006 - 12.7%, Increase: 182%
- Strength Test: Fall 2005 - 3%, Spring 2006 - 16%, Increase: 433%

Colors:
- Red: Fall 2005
- Yellow: Spring 2006
Fitnessgram Results:
Percent Reduction in Disciplinary Issues

Woodland Elementary School, Kansas City PSD #33
Fall 2005 – Spring 2006, Grades 4 and 5

Discipline Incidents Involving Violence

- 2004 - 2005: 228
- 2005 - 2006: 94

Resulting Out-of-School Suspension Days

- 2004 - 2005: 392
- 2005 - 2006: 1177

↓ 59%
↓ 67%
“PE4Life has had a tremendous influence on the lives of our students. It’s not just the increased levels of fitness we are seeing in our kids which has everyone excited. Students are also more motivated throughout the day, their enthusiasm is way up, and discipline issues are way down.”

— Craig Rupert
(Principal, Woodland Elementary School)
“I’ve lost 6 pounds already!” (after 2 weeks of program participation)

“Do we get to keep coming after December? I need this program for my life. I don’t know enough yet to do this on my own.”

“Without you guys, I might end up dead in a ditch somewhere, but now I am getting healthy and I am taking care of myself.”

“Can we bring friends to join the program next semester? I have some people who would like to come.”
Cooper High School

- We would like nutritional information. How can I eat healthy when I have to eat what my mom buys? I need to learn ways to make healthy choices.”

- “Please, please please! Let us come back in January!”

- I am sad this is our last night. I hope we can come back and continue to work together and motivate each other.”

- “We are on this journey together and we won’t let each other fail. This experience is going to make us friends for life. We are going to get healthy together and we have made a bond that will never go away.”
Percentage of California Students Meeting 5 or 6 FITNESSGRAM Tests*

*California Physical Fitness Tests Results, 2005

Senate Bill 530

Passed by Texas State House of Representatives and Senate on May 27, 2007

Signed into Law by Governor Rick Perry on June 13, 2007

Fitnessgram® approved as official testing vehicle by the Texas Education Agency on September 27, 2007
Senate Bill 530

Exercise Requirements (Sep 2007)

Grades K – 5
- 30 minutes 5 times/week or
- 45 minutes 3 times/week (135 minutes total)
- 225 minutes over 2 weeks (45 minutes 3 times the first week, 45 minutes 2 times the second week)

Grades 6 – 8
- Same as above, but only 4 of 6 semesters are required

Grades 9 – 12
- No physical education requirement

Testing Requirements (using the Fitnessgram®)

- Beginning in the 2007-08 school year, all students grades 3 - 12 will be required to be tested annually at some time during the school year.
Texas Education Agency Approved
Coordinated School Health Programs

- Bienestar
- CATCH
- Healthy & Wise
- Great Body Shop
A backward lunge: Kids in sad shape
## Texas Youth Evaluation Project 2008

**Total # of Students Grades 3-12: 2,658,665**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total # of Students</th>
<th>GIRLS</th>
<th>BOYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>331,379</td>
<td>162,429</td>
<td>168,950</td>
</tr>
<tr>
<td>4</td>
<td>325,558</td>
<td>159,176</td>
<td>166,382</td>
</tr>
<tr>
<td>5</td>
<td>321,096</td>
<td>157,724</td>
<td>163,372</td>
</tr>
<tr>
<td>6</td>
<td>298,930</td>
<td>146,881</td>
<td>152,049</td>
</tr>
<tr>
<td>7</td>
<td>287,952</td>
<td>141,136</td>
<td>146,816</td>
</tr>
<tr>
<td>8</td>
<td>265,853</td>
<td>129,227</td>
<td>136,626</td>
</tr>
<tr>
<td>9</td>
<td>272,255</td>
<td>130,877</td>
<td>141,378</td>
</tr>
<tr>
<td>10</td>
<td>219,119</td>
<td>106,986</td>
<td>112,133</td>
</tr>
<tr>
<td>11</td>
<td>184,379</td>
<td>90,717</td>
<td>93,662</td>
</tr>
<tr>
<td>12</td>
<td>152,144</td>
<td>75,673</td>
<td>76,471</td>
</tr>
</tbody>
</table>

6,532 campuses out of 9,212 (70.91%)

1,074 districts out of 1,267 (84.77%)
### Texas Youth Evaluation Project 2008

**Total # of Students Grades 3-12: 2,658,665**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total # Students</th>
<th>Girls</th>
<th>Boys</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>102,342</td>
<td>33.25</td>
<td>28.60</td>
</tr>
<tr>
<td>4</td>
<td>80,539</td>
<td>28.50</td>
<td>21.14</td>
</tr>
<tr>
<td>5</td>
<td>66,798</td>
<td>23.82</td>
<td>17.89</td>
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<tr>
<td>6</td>
<td>60,663</td>
<td>23.08</td>
<td>17.60</td>
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<td>7</td>
<td>55,441</td>
<td>21.32</td>
<td>17.26</td>
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<td>8</td>
<td>48,971</td>
<td>18.99</td>
<td>17.88</td>
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<tr>
<td>9</td>
<td>39,456</td>
<td>13.90</td>
<td>15.04</td>
</tr>
<tr>
<td>10</td>
<td>28,650</td>
<td>12.42</td>
<td>13.70</td>
</tr>
<tr>
<td>11</td>
<td>21,152</td>
<td>10.68</td>
<td>12.24</td>
</tr>
<tr>
<td>12</td>
<td>13,040</td>
<td>8.18</td>
<td>8.96</td>
</tr>
</tbody>
</table>

6,532 campuses out of 9,212 (70.91%)
1,074 districts out of 1,267 (84.77%)
FITNESSGRAM® Test 2008
Achieved “Healthy Fitness Zone” in all 6 Tests
Boys: 25,000±

<table>
<thead>
<tr>
<th>Grade</th>
<th>El Paso ISD</th>
<th>Statewide</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>55.79</td>
<td>27.64</td>
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<tr>
<td>4</td>
<td>53.89</td>
<td>20.36</td>
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<tr>
<td>5</td>
<td>55.90</td>
<td>17.29</td>
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<tr>
<td>6</td>
<td>44.35</td>
<td>17.10</td>
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<tr>
<td>7</td>
<td>38.43</td>
<td>16.93</td>
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<td>39.34</td>
<td>17.55</td>
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<td>19.43</td>
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<td>11</td>
<td>20.73</td>
<td>11.71</td>
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<tr>
<td>12</td>
<td>11.65</td>
<td>8.56</td>
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</tbody>
</table>
**FITNESSGRAM® Test 2008**
Achieved “Healthy Fitness Zone” in all 6 Tests
**Girls: 22,000±**

<table>
<thead>
<tr>
<th>Grade</th>
<th>El Paso ISD</th>
<th>Statewide</th>
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<tbody>
<tr>
<td>3</td>
<td>69.47</td>
<td>32.09</td>
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<tr>
<td>4</td>
<td>68.43</td>
<td>27.40</td>
</tr>
<tr>
<td>5</td>
<td>55.76</td>
<td>23.03</td>
</tr>
<tr>
<td>6</td>
<td>56.11</td>
<td>22.59</td>
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<td>7</td>
<td>48.59</td>
<td>20.93</td>
</tr>
<tr>
<td>8</td>
<td>41.65</td>
<td>18.70</td>
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<tr>
<td>9</td>
<td>23.11</td>
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<td>20.10</td>
<td>10.25</td>
</tr>
<tr>
<td>12</td>
<td>10.29</td>
<td>7.82</td>
</tr>
</tbody>
</table>
Exercise Requirements

Grades K – 5
- 45 minutes/day taught by a Certified Physical Education Teacher
- Daily recess 15-20 minutes
- United States Tennis Association (USTA) Partnership – (provides skill development for students)

Grades 6 – 7
- 50 minutes daily or 90 minutes every other day
- United States Tennis Association (USTA) Partnership

Grade 8
- One semester 50 minutes daily or 90 minutes every other day

Grades 9 – 12
- 1-1/2 credits of physical education are required (less than 35% of the students actually take a P.E. class). Other activities allow them to waive this requirement.

Testing Requirements (using the Fitnessgram®)
- All students grades 3 – 12 will be tested annually.
Texas Education Agency
Physical Fitness Assessment Initiative

10 Variables Compared with Levels of Fitness

- Attendance Rate
- Eligible for free lunch program
- Eligible for reduced lunch program
- TAKS
- Occurrence of substance abuse
- Occurrence of violence
- Occurrence of weapons
- Occurrence of truancy
- Obesity
- Diabetes
Study: Fit kids do better in school

TEA cites improved testing, behavior; arts teachers fear more PE

By TERRENCE STUTZ

AUSTIN — Texas students who are physically fit are more likely to do well on achievement tests and less likely to have disciplinary problems, according to a study released Monday by the Texas Education Agency.

Based on annual physical fitness assessments of more than 2.4 million students in the public schools, the study found that increased exercise enhances the ability to learn, as evidenced by the higher scores of physically fit children on the Texas Assessment of Knowledge and Skills.

Schools with a higher percentage of students in shape also benefited, according to the study, earning better performance ratings from the state. And attendance rates were higher for students who were physically fit.

Gov. Rick Perry and Sen. Jane Nelson, R-Flower Mound, were among those present as the study was unveiled. Nelson is sponsoring legislation this year to increase physical education requirements for Texas students in middle school.

Nelson, who wrote the 2007 measure that required annual fitness assessments, said there is more work to do to combat obesity and get children in shape, including more time in PE. A measure she has written this year would require two additional semesters in middle school, for a total of six.

“We need to move forward on this issue as if lives depend on it — because they do,” she said.

But groups representing fine arts teachers are lining up against the legislation, contending it would further erode students’ ability to take music and fine arts classes.

“More and more requirements have crowded out the opportunity for students and schools to fit music and fine arts into their schedules,” said Robert Floyd of the Texas Coalition for Quality Arts Education.

He also criticized the growing practice of pulling students out of fine arts class to cram for the TAKS test — a practice he called “educational child abuse.”

The fitness study released by the TEA was based on the Fitnessgram tests — developed by the Cooper Institute of Dallas — given to students at 5,632 Texas schools in the 2007-08 school year. The assessments measured students in grades three through 12 in five areas — body composition, aerobic capacity, muscular strength, endurance and flexibility. The results determined whether a student was in a “healthy fitness zone” for their age and gender.

The study found that fitness levels dropped with each passing grade level. Elementary-age children performed the best while high school students had the lowest percentage of students who were deemed physically fit. For example, about 78 percent of fourth-graders were in the healthy fitness zone, while only 20 percent of high school seniors were in the zone.

Students will undergo a second round of Fitnessgram testing this spring.
Cardiovascular Fitness by Grade
% Achieving “Healthy Fitness Zone”

Grade

Percent Achieving Standard

0 10 20 30 40 50 60 70 80 90 100

Students tested but standards not applied.

Texas Youth Fitness Study
Body Mass Index (BMI) by Grade
% Achieving Healthy Fitness Zone

Texas Youth Fitness Study
Association Between Fitness and School Attendance Rates

Higher Levels of Fitness Associated with Better School Attendance

Texas Youth Fitness Study
Association Between Fitness and Academic Performance (TAKS)

All students from all eligible schools

Spearmen correlations between % achieving HFZ and % achieving TAKS standards adjusted for SES, minority % and school size

Higher Levels of Fitness Associated with Better Academic Performance

Texas Youth Fitness Study
Association Between Fitness and School Incidence Rates

All students from all eligible schools

Spearmen correlations between % achieving HFZ and % of negative incidence adjusted for SES, minority % and school size

Higher Levels of Fitness Associated with Fewer Negative School Incidents

Texas Youth Fitness Study
CV Fitness Corresponds with Academic Performance when Schools Stratified by State Rating System

Texas Youth Fitness Study
Texas Education Agency
Physical Fitness Assessment Initiative

Additional Analyses

- % Passing each of the six tests
- Regional comparisons
- Ethnic comparisons
- Comparison with other states
Counties with low or high levels of achievement in CV fitness also tended to have corresponding low or high levels of achievement on TAKS.

Causality can’t be assumed but associations are apparent.
Counties with low or high levels of achievement in BMI also tended to have corresponding low or high levels of achievement on TAKS.

Causality can’t be assumed but associations are apparent.
Summary of Texas Youth Fitness Study
Initial Results

- Significant associations were consistently found between physical fitness and various indicators of academic achievement.

- The results were controlled for the influence due to school social economic status, minority status and school size.

- The consistent relationships observed support the thesis that physical fitness is associated with academic achievement in school aged youth. These are cross-sectional results and cannot be used to infer causality.
**Goals**

• To start a fitness and wellness movement in Texas which will spread across the country, ultimately improving the health and longevity of all Americans.

• To measure the level of fitness and determine the amount of obesity of all students in Texas, grades 3-12.

• To compare fitness level with academic achievement, absenteeism, obesity, discipline problems, and school lunch programs.

• To implement a mandatory Physical Education program in all Texas schools for grades K-8.

• To then re-evaluate these students and repeat the above comparisons to monitor the effectiveness or lack of effectiveness of this program.
Primary responsibility for the Texas Youth Evaluation Project will be held by The Cooper Institute, a 501(c)(3) organization.

The Cooper Institute will be responsible for implementation of the program, testing, and training of the students, collection, and analysis of the data.