ORGANIZATION OF STUDENT FITNESSGRAM RESULTS

Overview

The FITNESSGRAM is a criterion-referenced physical fitness assessment. It uses the criterion-referenced standards, Healthy Fitness Zones (HFZ), by age and gender. It can also track a student's physical fitness over time.

NYC FITNESSGRAM supports students in learning about and measuring three components of health-related physical fitness that have been identified as important to overall students' health and fitness:

> Aerobic capacity; muscular strength, endurance and flexibility; and body composition

These three components are measured by six subtests: Progressive Aerobic Cardiovascular Endurance Run or Pacer (aerobic capacity), curl-ups, trunk lift, push-up and shoulder stretches (strength, endurance and flexibility), and Body Mass Index of BMI (body composition). The BMI Percentile is a measurement that calculates a person's body mass based upon height, weight, age and gender factors.

Universe of students included in dataset

In the file for each year, there is one record per K-12 student in a school in Districts 1-32 and District 75 (District 79 (alternative schools and programs) and 84 (charters) are not included). Each student has a unique student identification number, which can be linked across years.

Pertinent information about Fitnessgram data

Fitness assessment scores are collected for students in grades 4-12, but height and weight are collected for all grades (K-12).

Body Mass Index (BMI) percentile values are calculated by the Center for Disease Control and Prevention (CDC). For more information on how BMI percentile is calculated, please see the following link:

http://www.cdc.gov/nccdphp/dnpao/growthcharts/resources/sas.htm

Example File Name: "2008-09_Fitnessgram.csv"

FIELD	DATA TYPE	FIELD DESCRIPTION	VALID VALUES
student_id	Numeric	The student's unique identification number.	Nine-digit integer.
fg_exempt	Numeric	The student was exempt from the NYC FITNESSGRAM if FG_Exempt=1	Numeric value.
bmi_agemos	Numeric	The student's age in months at the time of height and weight measurement	Numeric Value
bmi_measurement _wearingshoes	Numeric	Whether the student was wearing shoes when height and weight were measured, and how teacher programmed measurements.	Null: Student measurements taken without shoes Text: Description of how teacher recorded measurement data if student wore shoes during measurements
height_inches	Numeric	The student's height in inches.	Numeric value.
height_cm	Numeric	The student's height in centimeters.	Numeric value.
hapct	Numeric	The student's Height-for-age percentile	Numeric value.
weight_pounds	Numeric	The student's weight in pounds	Numeric value.
weight_kg	Numeric	The student's weight in kilograms.	Numeric value.
wapct	Numeric	The student's weight-for-age percentile	Numeric value.
whpct	Numeric	The student's weight-for-height percentile	Numeric value.
bmi	Numeric	The student's Body Mass Index (BMI) which is calculated based on the student's height and weight (see **Appendix 1** for the formulas for calculating BMI). ▪ Note: The BMI value was not provided for the 2010-11 school year and, therefore, does not exist as a variable in the dataset for that school year.	Numeric value.
bmi_pct	Numeric	The student's BMI percentile.	Numeric value.
pacer	Numeric	Measure of the student's aerobic capacity -- Units are measured in **laps**.	Numeric value.
pacer_cat	String	Categorical status of student's pacer score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV
pushup	Numeric	Measure of the student's upper body strength – Units are measured in **repetitions**.	Numeric value.
pushup_cat	String	Categorical status of student's pushup score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV
curlup	Numeric	Measure of the student's abdominal strength – Units are measured in **repetitions**.	Numeric value.
curlup_cat	String	Categorical status of student's curlup score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV
trunklift	Numeric	Measure of the student's flexibility – Units are measured in **inches**.	Numeric value.
trunklift_cat	String	Categorical status of student's trunklift score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV
sitreachleft	Numeric	Measure of the student's flexibility – Units are measured in **inches**.	Numeric value.
sitreachleft_cat	String	Categorical status of student's sitreachleft score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV

sitreachright	Numeric	Measure of the student's flexibility – Units are measured in **inches**.	Numeric value.
sitreachright_cat	String	Categorical status of student's sitreachright score	Needs Improvement, Healthy Fitness Zone, Flagged as BIV

Appendix 1: Formulas for Calculating Body Mass Index (BMI)

English BMI Formula:

BMI = (Weight in Pounds / (Height in inches x Height in inches)) x 703

Metric BMI Formula:

BMI = (Weight in Kilograms / (Height in Meters x Height in Meters))