

# The Decay Function of the Predictive Utility of High School GPA

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## Overview

During conversations about the use of high school performance information for post-secondary assessment and placement, it is typical for someone to ask, “How long is high school GPA a valid predictor of student capacity and achievement at the post-secondary level?” The Multiple Measures Assessment Project research team, a joint venture of Educational Results Partnership and the Research and Planning Group for California Community College, examined this question using a data set of students with four complete years of high school information and an enrollment in transfer-level English and/or transfer-level math at the community college.

## *Data set*

The focal sample for this study was composed of all community college students who entered the California Community College (CCC) system between 2008 and 2014 and who enrolled in a developmental or college-level math or English course (N = 1,148,078). Of this sample approximately 600,000 had enrollments in transfer-level coursework in math and/or English at the community college as well as a cumulative 11<sup>th</sup> or 12<sup>th</sup> grade high school GPA on record.

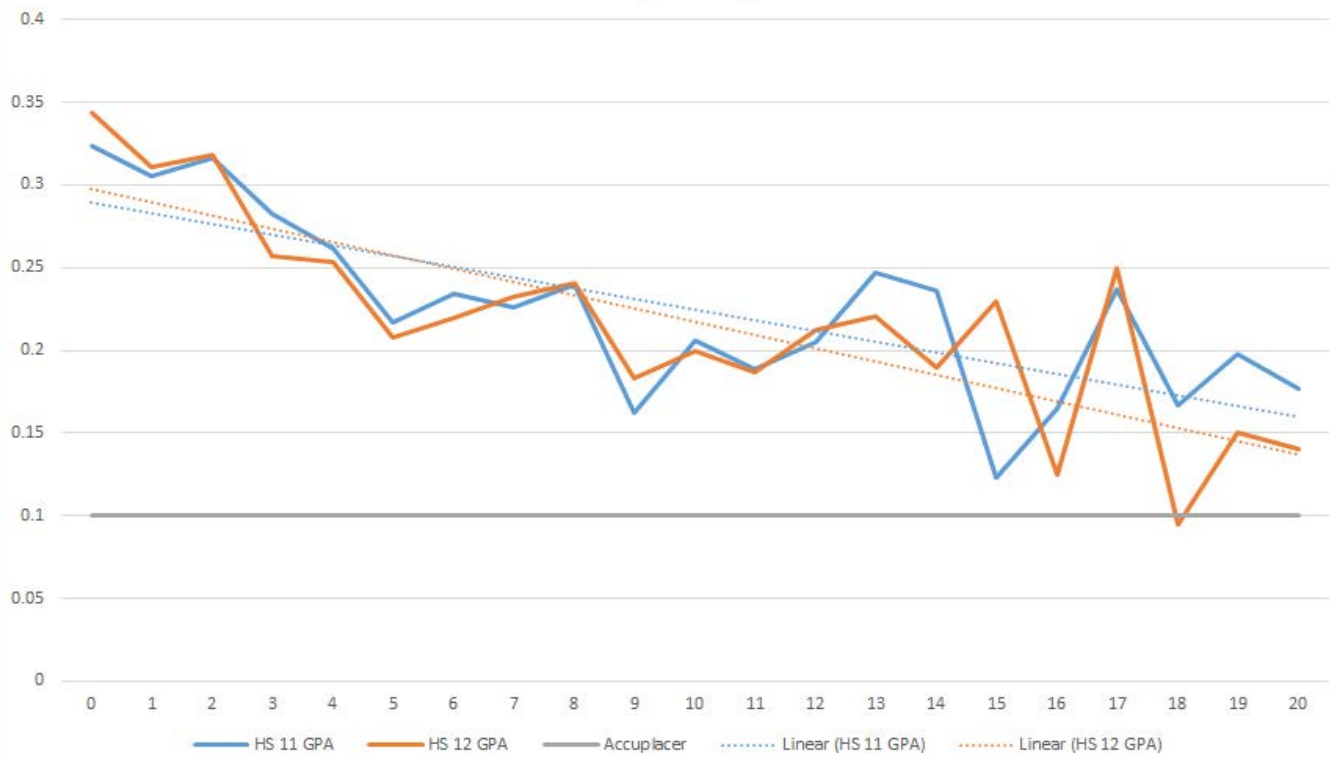
## *Method*

Students were grouped into delay categories according to the number of primary terms between their high school exit and their community college entrance. All students who enrolled at the community college immediately after their last term of high school were coded as zero delay (e.g., graduated in spring 2014 and enrolled at the community college in fall 2012); all students who had one semester intervene between their last high school enrollment and their first community college enrolled were grouped into the one semester delay group, on so on.

## *Findings*

Finding are shown in the two figures below. In general they show a higher correlation between high school and GPA for students with less delay between their high school exit and their community college entrance. The correlation drops off over time, with the drop off becoming more gradual over time. While the number of cases in each delay group decreases over time, making the results less reliable at for the groups with the greatest delays. Overall, the predictive utility of high school GPA continues to be at least as useful as a recent test score for the time period that we were able to examine (i.e., from zero to eighteen semesters of delay). The performance of 11<sup>th</sup> grade and 12<sup>th</sup> grade cumulative high school GPA were generally equivalent.

## Decay function for the predictive utility of HSGPA on English grades



## Decay function for the predictive utility of HSGPA on Math grades

