

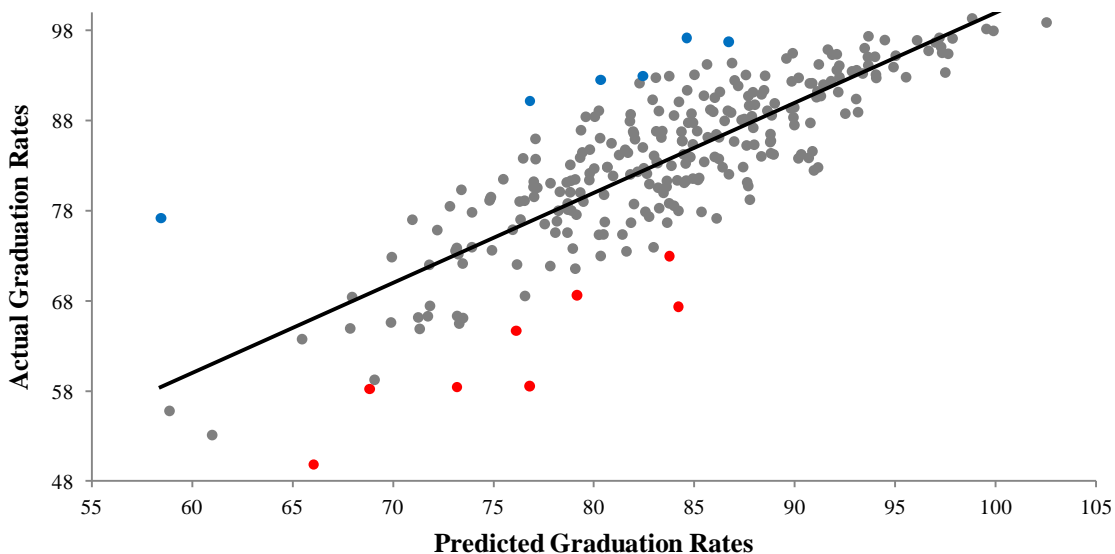
Actual Vs. Predicted High School Graduation Rates for California School Districts

By Lauren Taylor

High school graduation rates, like other measures of educational performance, are influenced by the demographic characteristics of students. In order to judge the performance of schools or districts, it is necessary to first account for differences in these characteristics. One way to do this is by using a regression model that predicts graduation rates for all districts based on their student demographics and then compares those rates with their actual rates. Districts that exceed their predicted graduation rates can be considered overachievers, while districts that fail to meet their predicted graduation rates can be considered underachievers. *Education Week* used this technique in its 2010 edition of *Diplomas Count* to identify over and underachieving large districts nationwide based on 2007 graduation rates.¹

This statistical brief used a similar technique to compare actual and predicted cohort graduation rates in 2009-10 for 273 California school districts that enrolled at 1000 or more students in grades 9-12 (see Figure 1).² The trend line shows the point where school districts' actual rates should match their predicted rates. As districts move future away from the trend line they are either above or below their predicted rate.

Figure 1. Actual vs. predicted graduation rates for California School Districts, 2009-10



¹ See: <http://www.edweek.org/ew/toc/2010/06/10/index.html>

² One major difference is that Education Week used student demographic, resource, and structural variables, while the current study used only student demographic variables. In addition, Education Week calculates graduation rates using enrollment data, while this study uses cohort graduation rates that track individual students. .

Results from this study found that six California districts exceeded their predicted graduation rates by at least 10 percentage points, with Inglewood Unified being at the top with 18.74 percentage point above their predicted rate. Results also found eight districts performing 10-percentage point below their predicted rates.

Unfortunately, none of the six California districts found in the ED week article were determined high achieving in this study. Table 1 displays the top and bottom California School Districts in regards to their residual values between predicted and actual graduation rates. The table displays the cohort graduation rates, predicted graduation rates (calculated using the API variables), the residual variance between the two rates, and the districts 9-12 grade enrollment.

Table 1. Over and Underachieving California School Districts based on 2009-10 Cohort Graduation Rates

| District Name | 9 th -12 th Grade Enrollment | Actual Graduation Rate | Predicted Graduation Rate | Residual |
|--------------------------------------|--|------------------------|---------------------------|----------|
| Overachieving | | | | |
| Inglewood Unified | 3,558 | 77.18 | 58.44 | 18.74 |
| Lake Elsinore Unified | 7,006 | 90.17 | 76.82 | 13.35 |
| Oak Park Unified | 1,424 | 97.18 | 84.62 | 12.56 |
| Los Banos Unified | 2,619 | 92.51 | 80.34 | 12.17 |
| Taft Union High | 1,045 | 92.94 | 82.43 | 10.51 |
| West Covina Unified | 4,239 | 96.73 | 86.72 | 10.01 |
| Underachieving | | | | |
| Colton Joint Unified | 6,689 | 68.64 | 79.16 | -10.52 |
| San Bernardino City Unified | 16,147 | 58.22 | 68.84 | -10.62 |
| So. Monterey County Joint Union High | 2,075 | 72.97 | 83.76 | -10.79 |
| Los Angeles Unified | 208,384 | 64.69 | 76.13 | -11.44 |
| Southern Kern Unified | 1,032 | 58.44 | 73.19 | -14.75 |
| Vallejo City Unified | 5,008 | 49.84 | 66.04 | -16.20 |
| Fullerton Joint Union High | 15,080 | 67.36 | 84.20 | -16.84 |
| McFarland Unified | 1,009 | 58.56 | 76.80 | -18.24 |

To view an interactive chart showing results for all 273 districts, visit:

<http://public.tableausoftware.com/views/CohortRates0910/Dashboard1?:embed=yes&:toolbar=yes&:tabs=no>

The above graph and table have been updated since the January 2012 release of this statistical brief. New data provided by the California Department of Education (retrieved March 5, 2012) has resulted in some changes to the original document. The most significant change was to San Lorenzo Valley Unified whose Actual Graduation Rate was updated from 61.38 to 90.42 resulting in a residual change from -30.30 to -2.65.