

## “BEATING THE ODDS” ON THE WASL, REVISITED: IDENTIFYING CONSISTENTLY SUCCESSFUL—AND STRUGGLING—SCHOOLS

In April 2007, the Washington State Institute for Public Policy (Institute) released a report identifying schools that “beat the odds” on the 10th-grade Washington Assessment of Student Learning (WASL) in spring 2006—schools whose students performed significantly better than expected given their demographic characteristics.<sup>1</sup> That report was part of a series of WASL analyses the Institute conducted at the direction of the 2006 Legislature.<sup>2</sup> We found that few schools beat the odds on the 10th-grade WASL.

**This report updates our effort to identify schools whose students performed above or below expectations on the WASL.** We add another set of results, from spring 2007, to determine whether any schools beat the odds for two consecutive years. We also include 4th- and 7th-grade results to identify elementary and middle schools that beat the odds. Again, we found that very few schools performed better or worse than expected in both spring 2006 and spring 2007 given the characteristics of their students. Based on our findings, we underscore the need to analyze test results for multiple years when attempting to identify successful and struggling schools.

We begin with an overview of the methods used to identify schools that performed above and below expectations on the WASL, followed by a summary of the results by grade level and subject areas. The appendix lists schools that beat the odds and performed below expectations for two consecutive years on the WASL in grades 10, 7, and 4, and also presents the results of our analysis graphically.

<sup>1</sup> R. Barnoski & W. Cole. (2007). *Did any schools “beat the odds” on the 10th-grade WASL in spring 2006?* Olympia: Washington State Institute for Public Policy, Document No. 07-04-2202.

<sup>2</sup> The Legislature directed the Institute to conduct a “review and statistical analysis of Washington assessment of student learning data.” SSB 6618, Chapter 352, Laws of 2006.

### SUMMARY

Do some public schools in Washington “beat the odds” by consistently performing better than expected given their demographics? This report identifies the extent to which schools’ average met-standard rates on the WASL differed from statistical expectations based on the gender, racial/ethnic, socioeconomic, linguistic, and special-needs characteristics of their students.

We analyzed two years of results (from the spring 2006 and spring 2007 WASL administrations), two sets of subject areas (math separately from reading and writing), and three grade levels (grades 4, 7, and 10).

**The main conclusion is that very few schools—1.0 to 6.6 percent depending on grade level and subject area—performed substantially better or worse than expected on the WASL for two consecutive years given their demographic profiles.**

No clear patterns emerged with respect to grade-level or subject-area results, although small schools and alternative schools were disproportionately represented among those performing above or below expectations.

In addition, even after controlling for a variety of school characteristics, schools that beat the odds tended to have substantially fewer students eligible for free or reduced-price meals, fewer African American and American Indian students, and more Asian students than schools that performed below expectations.

Due to annual variations in school-level WASL performance, we caution against using results from any one year to identify successful or struggling schools.

Suggested citation: Wade Cole. (2008). *“Beating the Odds” on the WASL, Revisited: Identifying Consistently Successful—and Struggling—Schools*. Olympia: Washington State Institute for Public Policy, Document No. 08-05-2201.

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## METHOD

As with our previous analysis, we use a statistical method called multivariate logistic regression to “predict” whether individual students met standard on the WASL, taking into account gender, race/ethnicity, English language learner status, eligibility for free/reduced-price meal benefits, and disability status. (The technical details of our analysis are presented in the appendix.) We conduct two sets of analyses: one describing student performance in reading and writing combined; the other summarizing performance in math only. Our analyses are based on students who completed the relevant portions of the WASL as scheduled in spring 2006 or spring 2007.

After pooling these student-level results to the school level, we compared schools’ *actual* and *predicted* met-standard rates. “Actual” rates refer to the number of students in a school who met standard on the WASL as a percentage of all students who completed it. “Predicted” rates, derived from the statistical analysis, express the percentage of students who were expected to meet standard given the school’s demographic profile.

We define schools as “beating the odds” when their actual met-standard rates exceeded their predicted rates by at least one standard deviation.<sup>3</sup> Schools performed “below expectations” when actual met-standard rates fell below predicted rates by one standard deviation or more. These thresholds often differ across subject areas and over time (see **Exhibit 1**).

We repeated our analysis for three grades (4th, 7th, and 10th), two sets of subject-area results (math and reading/writing), and two time points (spring 2006 and spring 2007).

<sup>3</sup> For normally distributed populations, approximately 68 percent of observations fall within one standard deviation of the mean. “Outliers” are often defined as observations that lie two or more standard deviations from the mean; however, this threshold would substantially reduce the number of beat-the-odds and below-expectations schools in our analysis. Other analyses identify schools as beating the odds using a .75-standard-deviation threshold, or when residuals obtained from regression analyses—the difference between schools’ actual and predicted performance—are positive. See: M. Pérez, P. Anand, C. Speroni, T. Parrish, P. Esra, M. Socías, & P. Gubbins. (2007). *Successful California schools in the context of educational adequacy*. Washington, DC: American Institutes for Research; M. J. Waits, H. E. Campbell, R. Gau, E. Jacobs, T. Rex, & R. K. Hess. (2006). *Why some schools with Latino children beat the odds...and others don't*. Tempe: Arizona State University, Morrison Institute for Public Policy.

A brief example illustrates our method. In spring 2006, 85.9 percent of students who completed the math WASL at Bainbridge High School met standard. Given the school’s demographic profile, the statistical analyses predicted that 62.1 percent of students would meet standard. The difference between the actual and predicted met-standard rates (23.8 percentage points) exceeded the one-standard-deviation threshold of 15 percentage points, so Bainbridge High School was deemed to have beat the odds in spring 2006.

Met-standard rates in small schools are easily influenced by the performance of individual students, often resulting in extreme fluctuations from year to year. Therefore, we exclude from the analysis schools that enrolled fewer than 25 students who completed the WASL. (Our definition of “small schools” is unrelated to the “small school factor” used to disburse state funds to small districts.) We also restrict the analysis to schools with available data for both WASL administrations.

These restrictions produce a total of 284 and 289 schools in the 10th-grade reading/writing and math samples, respectively. There are 973 and 974 schools in the corresponding 4th-grade samples, and 386 in both 7th-grade samples.<sup>4</sup>

*Exhibit 1*  
**Thresholds for “beating the odds” and performing “below expectations”**

Grade	Subject area	Spring 2006	Spring 2007
10th	Reading and Writing	±11%	±10%
	Math	±15%	±16%
7th	Reading and Writing	±15%	±16%
	Math	±15%	±15%
4th	Reading and Writing	±16%	±16%
	Math	±17%	±17%

*Note:* Thresholds correspond to one standard deviation from average met-standard rates for each grade level and subject area.

<sup>4</sup> Considering each year in isolation (spring 2006 or spring 2007), there were between 996 and 999 schools in the 4th-grade reading/writing and math samples, 400 to 406 schools in the 7th-grade samples, and 293 to 315 in the 10th-grade samples.

## FINDINGS

**Beating the odds each year.** Consistent with our previous results, we conclude that in any given year, very few schools performed substantially better or worse on the WASL than expected given the demographic characteristics of their students.<sup>5</sup>

**Exhibit 2** summarizes the results for grades 10, 7, and 4.

### 10th grade

- **Math:** By our definition, 8.3 percent of schools (n=24) beat the odds on the 10th-grade math WASL in spring 2006, compared with 11.4 percent (n=33) in spring 2007. A similar proportion of schools performed below expectations: 10.0 and 9.7 percent of schools in spring 2006 and spring 2007, respectively (n=29 and 28).
- **Reading and Writing:** Compared with math, a smaller share of schools beat the odds in both reading and writing: 3.9 percent (n=11) in spring 2006 and 4.2 percent (n=12) in spring 2007. Conversely, 6.7 percent of schools (n=19) performed below expectations in spring 2006 and 9.5 percent (n=27) did so in spring 2007.

### 7th grade

- **Math:** Roughly 7 percent of schools beat the odds on the 7th-grade math WASL each year, compared with approximately 5 percent that performed below expectations.
- **Reading and Writing:** 8.3 and 6.5 percent of schools beat the odds in spring 2006 and spring 2007, respectively, while 8.8 and 8.0 percent performed below expectations.

<sup>5</sup> The 10th-grade results for spring 2006 differ slightly from those we reported in April 2007 for two reasons. First, our original analysis included an indicator of parents' education obtained from the 9th-grade Iowa Tests of Education Development (ITED) survey. Washington State stopped administering the ITED in 2005, so this information was no longer available for students taking the WASL in spring 2007. To ensure the comparability of results over time, we re-analyzed the spring 2006 results after omitting parents' education. Second, the analysis is restricted to schools with available data for both years. A total of 284 and 289 schools are included in the analysis of reading/writing and math results, respectively, compared with 309 and 303 schools that were included in our previous analysis.

*Exhibit 2*  
**Number of schools that “beat the odds” or performed “below expectations” on the WASL in spring 2006 and spring 2007, and in both years**

#### Grade 10

	Math (n=289 schools)		Reading and Writing (n=284 schools)	
	Beat the odds	Below expectations	Beat the odds	Below expectations
Spring 2006	24 (8.3%)	29 (10.0%)	11 (3.9%)	19 (6.7%)
Spring 2007	33 (11.4%)	28 (9.7%)	12 (4.2%)	27 (9.5%)
Both years	19 (6.6%)	12 (4.2%)	3 (1.1%)	7 (2.5%)

#### Grade 7

	Math (n=386 schools)		Reading and Writing (n=386 schools)	
	Beat the odds	Below expectations	Beat the odds	Below expectations
Spring 2006	30 (7.8%)	20 (5.2%)	32 (8.3%)	34 (8.8%)
Spring 2007	26 (6.7%)	21 (5.4%)	25 (6.5%)	31 (8.0%)
Both years	21 (5.4%)	4 (1.0%)	18 (4.7%)	12 (3.1%)

#### Grade 4

	Math (n=974 schools)		Reading and Writing (n=973 schools)	
	Beat the odds	Below expectations	Beat the odds	Below expectations
Spring 2006	80 (8.2%)	88 (9.0%)	95 (9.8%)	93 (9.6%)
Spring 2007	60 (6.2%)	61 (6.3%)	85 (8.7%)	81 (8.3%)
Both years	28 (2.9%)	23 (2.4%)	42 (4.3%)	32 (3.3%)

## 4th grade

- Math: 8.2 percent of schools beat the odds on the 4th-grade math WASL in spring 2006; 6.2 percent did so a year later. Nine percent of schools performed below expectations in spring 2006, compared with 6.3 percent in spring 2007.
- Reading and Writing: Approximately 9 percent of schools beat the odds and performed below expectations on both the reading and writing WASL exams each year.

**Beating the odds in consecutive years.** The foregoing summary described the percentage of schools that performed better or worse than expected on the WASL for each year of results (spring 2006 OR spring 2007). Exhibit 2 also shows that even fewer schools beat the odds or performed below expectations for two consecutive years (spring 2006 AND spring 2007).

## 10th grade

- Math: 6.6 percent of schools beat the odds on the math WASL in both spring 2006 and spring 2007, compared with 4.2 percent that consistently performed below expectations.
- Reading and Writing: The percentage of schools that performed below expectations for consecutive years (2.5 percent) surpassed the percentage that beat the odds (1.1 percent).<sup>6</sup>

## 7th grade

- Math: 5.4 percent of schools consistently beat the odds in math, compared with 1.0 percent that performed below expectations.

- Reading and Writing: 4.7 percent of schools performed better than predicted for two years, while 3.1 percent performed below expectations.<sup>7</sup>

## 4th grade

- Math: 2.9 percent of schools beat the odds in math for two consecutive years; slightly fewer schools (2.4 percent) performed below expectations.
- Reading and Writing: The percentage of schools performing above and below expectations for reading/writing—4.3 and 3.3 percent, respectively—was somewhat higher than for math.<sup>8</sup>

**Conclusions.** Two main conclusions can be drawn from the results presented in Exhibit 2. First, due to variation in schoolwide WASL performance over time, it is misleading to identify schools as beating the odds or performing below expectations based on only one year of results. The number of schools that performed better or worse than predicted for two consecutive years is much smaller than the number for any one year. Second, very few schools performed substantially better or worse than expected given the demographic characteristics of their students. This finding is consistent with results from around the nation.

- Using a slightly different statistical methodology, the American Institutes for Research found that 3 percent of high schools in California (35 of 1,159) performed better than expected in English and math on the California High School Exit Exam for three consecutive years (2002 to 2005).<sup>9</sup>

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<sup>6</sup> Two schools—Bainbridge High School and the International School in Bellevue—beat the odds for two consecutive years in both math and reading/writing. Three schools—Onalaska High School, Havermale High School (Spokane), and Lewis and Clark High School (Vancouver)—performed below expectations for two consecutive years in both math and reading/writing. Three of these schools are “choice” schools, with admission by application. International School in Bellevue is ranked fifth in the *U.S. News and World Report’s* top 100 high schools in the nation (see: [www.usnews.com/sections/education/high-schools/](http://www.usnews.com/sections/education/high-schools/)); it offers a coordinated seven-year study program, grades 6 through 12, for approximately 500 students. Havermale High School in Spokane and Lewis and Clark High School in Vancouver are alternative high schools.

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<sup>7</sup> Several schools beat the odds for two consecutive years on the 7th-grade WASL in both math and reading/writing: Woodward (Bainbridge); International School (Bellevue); Maplewood Co-operative (Edmonds); Public Academy (Federal Way); Alternative Northstar, Environmental, Inglewood, International School, and Stella Schola (Lake Washington); Islander (Mercer Island); Salmon Bay and Washington (Seattle); and Libby Center (Spokane).

<sup>8</sup> Nineteen schools beat the odds in reading/writing and math for both years, compared with 5 schools that performed below expectations in each subject for both years.

<sup>9</sup> Pérez, et al., 2007.

- A two-year study conducted by researchers from EdSource, Stanford University, the University of California–Berkeley, and the American Institutes for Research concluded that 4 percent of 257 elementary schools performed better than expected on the Academic Performance Index given their students’ characteristics, compared with 7 percent that performed in the lowest achievement category.<sup>10</sup>
- Researchers in Arizona found that 3.6 percent of elementary and middle schools (12 of 331) consistently beat the odds or showed steady improvement on reading and math test scores over an eight-year period (1997–2004).<sup>11</sup>

We also note that most beat-the-odds schools in our analysis exceeded relatively high statistical expectations—that is, they tended to be the same schools our statistical models identified as high-performing. For these schools, the “odds” of success given their enrollment composition were high from the start. For example, based on the student-level demographic characteristics included in the analysis, the statistical models predicted that few schools would have met-standard rates above 60 percent on the 10th-grade math WASL; however, the actual met-standard rates of all but one beat-the-odds school (Bridgeport High School) were well in excess of 60 percent. Very rarely did a beat-the-odds school have a predicted met-standard rate below 50 percent (for more details, see the appendix).

### ADDITIONAL FINDINGS

A number of patterns emerged from the analyses, suggesting that schools which perform better or worse than expected tend to have certain identifiable characteristics. Here we review three: school size (large vs. small), school type (alternative vs. “regular”), and average demographic characteristics (e.g., race/ethnicity, poverty, language barriers, disability status).

<sup>10</sup> T. Williams, M. Kirst, E. Woody, J. Levin, et al. (2006). *Similar students, different results: Why do some schools do better?* Mountain View, CA: EdSource.

<sup>11</sup> Waits, et al., 2006.

**School size.** As shown in **Exhibit 3**, a disproportionate percentage of schools that beat the odds or performed below expectations on the WASL in grades 7 and 10 were small, enrolling fewer than 100 students who completed the relevant portions of the WASL.

For example, 11 of 12 schools that performed below expectations on the 10th-grade math WASL (91.7 percent) enrolled between 25 and 100 WASL completers; however, only 88 of all 289 schools in the analysis (30.4 percent) enrolled a similar number of students. This pattern does not hold for 4th-grade WASL performance because the vast majority of elementary schools—approximately 90 percent—enroll fewer than 100 students who completed the WASL.

*Exhibit 3*  
Percentage of “small schools” in each category\*

	Math		
	Beat the odds	Below expectations	All schools
10th grade	36.8% (7 of 19)	91.7% (11 of 12)	30.4% (88 of 289)
7th grade	47.6% (10 of 21)	50.0% (2 of 4)	26.4% (102 of 386)
4th grade	92.9% (26 of 28)	91.3% (21 of 23)	90.5% (881 of 974)

	Reading and Writing		
	Beat the odds	Below expectations	All schools
10th grade	66.7% (2 of 3)	71.4% (5 of 7)	29.2% (83 of 284)
7th grade	61.1% (11 of 18)	75.0% (9 of 12)	26.7% (103 of 386)
4th grade	90.5% (38 of 42)	87.5% (28 of 32)	90.9% (884 of 973)

\* “Small schools” refers to schools that enrolled between 25 and 100 students who completed the WASL. “All schools” refers to all schools with at least 25 students who completed the WASL. Our definition of “small schools” is unrelated to the “small school factor” used to disburse state funds to small districts.

**School type.** Several of the schools that consistently performed above or below statistical expectations on the 7th- and 10th-grade WASL exams were alternative schools.

**10th grade**

- Math: 4 of 19 schools that beat the odds on the 10th-grade math WASL, and 8 of 12 schools that performed below expectations, were alternative schools.
- Reading and Writing: Similarly, 1 of 3 schools that beat the odds and 2 of 7 schools that performed below expectations in reading/writing were alternative schools.

**7th grade**

- Math: Nearly half of the schools that beat the odds on the 7th-grade math WASL (10 of 21), but none of the 4 schools that performed below expectations, were alternative schools.
- Reading and Writing: Over half of the schools that performed better than expected in reading and writing (10 of 18) were alternative schools, compared with only 1 school (out of 12) that performed below expectations.

**4th grade**

- One alternative school, Challenge Elementary School in Edmonds, beat the odds in both math and reading/writing; none of the schools performing below expectations on the 4th-grade WASL were alternative schools.

**Demographic characteristics. Exhibit 4** summarizes the average characteristics of all schools that performed above and below expectations by grade level and subject area. Compared with schools that performed below expectations, schools that beat the odds tended to have:

- substantially fewer students eligible for free or reduced-price meal benefits;
- fewer African American and American Indian students; and
- more Asian students.

Schools that performed better than expected on the 10th-grade WASL were also significantly larger, on average, than schools that performed below expectations.

*Exhibit 4*  
**Average characteristics of schools that performed above and below expectations**

Subject	Above or Below Expectations	% Male	% Asian	% African American	% Hispanic	% American Indian	% Free or reduced meals	% English-language learners	% with disability	Number of students
<b>10th grade</b>										
RW	Above	49.6%	12.4%	1.3%	10.9%	0.7%	19.0%	4.5%	8.6%	165
	Below	48.5%	1.5%	2.3%	9.1%	15.6%	54.3%	1.9%	4.6%	91
	All Schools	49.6%	7.1%	4.2%	11.5%	2.9%	36.9%	4.8%	5.6%	213
M	Above	49.8%	13.8%	3.2%	9.2%	1.5%	22.2%	5.6%	4.3%	236
	Below	47.3%	1.9%	3.1%	7.3%	12.6%	51.9%	1.3%	6.7%	71
	All Schools	49.5%	6.9%	4.2%	11.6%	3.0%	37.6%	4.8%	6.0%	219
<b>7th grade</b>										
RW	Above	49.3%	13.2%	4.0%	4.5%	0.9%	12.3%	0.7%	5.4%	138
	Below	50.6%	2.9%	13.4%	5.8%	3.1%	47.1%	1.8%	7.9%	95
	All Schools	50.3%	6.9%	5.1%	13.8%	2.8%	38.6%	5.1%	7.5%	177
M	Above	48.7%	14.3%	3.5%	4.5%	1.0%	11.1%	1.4%	6.4%	167
	Below	51.2%	5.3%	5.5%	7.4%	7.9%	47.3%	1.0%	9.2%	161
	All Schools	50.6%	6.9%	5.1%	13.8%	2.8%	38.9%	5.2%	8.0%	179
<b>4th grade</b>										
RW	Above	51.4%	14.6%	4.7%	6.5%	1.4%	20.3%	2.9%	9.6%	69
	Below	49.9%	7.6%	8.5%	12.3%	2.9%	49.7%	7.9%	11.8%	65
	All Schools	50.5%	8.9%	6.4%	14.6%	2.7%	41.9%	7.9%	10.4%	69
M	Above	52.1%	13.1%	2.5%	12.9%	2.7%	30.1%	5.9%	10.9%	65
	Below	50.8%	7.0%	8.7%	14.1%	7.4%	53.4%	5.9%	11.9%	67
	All Schools	50.9%	8.8%	6.4%	14.6%	2.8%	42.1%	8.0%	11.1%	69

## CONCLUSIONS

Based on the results of our statistical analysis, we arrive at two general conclusions:

- Few schools—3.9 to 11.4 percent, depending on subject area and grade level—performed substantially better or worse than expected on the WASL during a given year (spring 2006 OR spring 2007) based on the demographic characteristics of their students.
- Even fewer schools—1.0 to 6.6 percent, depending on subject area and grade level—performed better or worse than expected on the WASL for two consecutive years (spring 2006 AND spring 2007), although the percentage of Washington schools that beat the odds is comparable to the percentage found in similar studies from around the nation that measured school-level achievement for multiple years.

Our analyses also revealed that small schools and alternative schools were disproportionately represented among those performing above and below expectations.

In addition, even after controlling statistically for a variety of school characteristics, schools that beat the odds tended to have substantially fewer students eligible for free or reduced-price meals, fewer African American and American Indian students, and more Asian students than schools that performed below expectations. No clear patterns emerged with respect to grade-level or subject-area results.

Based on these findings, we caution against using results from any one year to identify successful or struggling schools, because school-level WASL performance often varies substantially from year to year. Results become more reliable as additional years of data are included in analyses.

## APPENDIX

The appendix presents graphs and data tables from the analysis of schools that performed above and below statistical expectations. Results are organized by grade level.

### Graphical Results

The charts in the appendix plot actual met-standard rates against predicted met-standard rates based on schools' enrollment composition. The analysis identifies the extent to which schools performed above or below statistical expectations given the gender, racial/ethnic, socioeconomic, linguistic, and disability characteristics of their students.

For each grade, four sets of results are presented: two subject areas (math and reading/writing) by two WASL administrations (spring 2006 and spring 2007). Each dot represents a different school. Blue dots represent schools with at least 25 but fewer than 100 students who completed the WASL, and red dots correspond to schools with 100 or more WASL completers.

**How to interpret the charts.** The diagonal lines serve as benchmarks. Points falling on the solid diagonal indicate that actual and predicted met-standard rates are equivalent—that demographic characteristics predicted met-standard rates perfectly.

The dashed lines demarcate the  $\pm 1$ -standard-deviation thresholds in met-standard rates for each subject and year (see Exhibit 1 of this report). Points falling within these dashed lines represent schools that performed roughly as expected given their enrollment composition. Points located above this region represent schools that “beat the odds” (i.e., performed better than expected); points falling below it denote schools that performed “below expectations” (worse than expected).

**How school size influences the results.** When computing average met-standard rates, the size of a school matters. Average rates in small schools are sensitive to the performance of individual students: a few high- or low-performing students can greatly influence aggregate performance. To demonstrate: on the 10th-grade WASL, 9 of 22 beat-the-odds schools and 16 of 19 below-standards schools enrolled fewer than 100 students who completed the WASL. This is a property of averages. As the number of WASL completers at a school increases, average predicted and actual met-standard rates tend to converge.

### Data Tables

The tables identify schools that performed above or below expectations on the WASL for two consecutive years (spring 2006 and spring 2007), along with their demographic profiles. Separate analyses were conducted by grade level (grades 10, 7, and 4) and subject area (math and reading/writing). Percentages reflect two-year averages. Alternative schools, as identified by the Office of Superintendent of Public Instruction,<sup>12</sup> are designated by a double dagger (<sup>‡</sup>). The tables include the following information:

- **Actual met-standard rate:** The percentage of students who met standard on the WASL as a share of students who were tested.
- **Predicted met-standard rate:** The expected met-standard rate given a school's demographic characteristics, based on statistical analyses.
- **Difference:** The difference between actual and predicted met-standard rates, the basis on which schools are identified as beating the odds or performing below expectations.
- **% Male:** Percentage of male WASL completers.
- **% African American/American Indian/Asian/Hispanic:** Percentage of WASL completers by each racial/ethnic category.
- **% Free or reduced meals:** Percentage of WASL completers who were eligible for free or reduced-price meal benefits.
- **% English language learners:** Percentage of WASL completers designated as English language learners.
- **% with Disability:** Percentage of WASL completers with at least one documented disability.
- **Number of students:** Total number of students who completed the WASL.

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<sup>12</sup> See: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls)



### Technical Details of the Analysis

The data for this analysis were supplied to the Institute by the Office of Superintendent of Public Instruction. The databases include individual-level records describing WASL results and demographic characteristics for students enrolled in Washington State public schools.

The statistical models on which our analyses are based take the following form:

$$\ln \left[ \frac{\Pr(Y_{ijt} = 1)}{1 - \Pr(Y_{ijt} = 1)} \right] = \beta_0 + \beta_1 \text{Male}_{it} + \beta_2 \text{African American}_{it} + \beta_3 \text{American Indian}_{it} + \beta_4 \text{Asian}_{it} + \beta_5 \text{Hispanic}_{it} + \beta_6 \text{Free Reduced Meals}_{it} + \beta_7 \text{ELL}_{it} + \beta_8 \text{Disability}_{it} + \varepsilon,$$

where  $i$  indexes individual students,  $j$  indexes WASL subject areas and grade levels (reading/writing or math for grades 4, 7, or 10),  $t$  indexes WASL administrations (spring 2006 or spring 2007),

$\ln \left[ \frac{\Pr(Y_{ijt} = 1)}{1 - \Pr(Y_{ijt} = 1)} \right]$  is the log-odds that student  $i$  met

standard on subject-area and grade-level WASL  $j$  at time  $t$ ,  $\beta_0$  is the intercept,  $\beta_n$  are logistic regression coefficients describing the statistical association of each right-hand-side variable with WASL performance, and  $\varepsilon$  is a residual term representing the amount of variation in WASL performance unexplained by the characteristics in our analysis.

Schoolwide predicted probabilities are calculated using results obtained from the individual-level equation described above. Solving for  $\Pr(Y_{ijt} = 1)$  in the above equation gives the estimated probability that student  $i$  met standard on subject-area and grade-level WASL  $j$  at time  $t$ , given the student's demographic characteristics:

$$\Pr(Y_{ijt} = 1) = \left[ \frac{\exp(\beta_0 + \beta_n X_{it} + \varepsilon)}{1 + \exp(\beta_0 + \beta_n X_{it} + \varepsilon)} \right].$$

We then summed these estimated or "predicted" probabilities across all students at a given school to derive a predicted schoolwide met-standard rate. "Beat-the-odds" and "below-expectations" schools were identified by subtracting a school's predicted met-standard rate from its actual met-standard rate. If the difference exceeded one standard deviation of the mean met-standard rate across all schools in the sample, the school was deemed to have beat the odds; if the difference fell below one standard deviation, the school was considered to have performed below expectations.

The table on the following page reports unstandardized logistic regression coefficient estimates describing the association between student-level characteristics and WASL met-standard rates. These coefficient estimates were used to generate predicted schoolwide met-standard rates for the analysis.

**Unstandardized logistic regression coefficients describing the association of student-level characteristics with WASL met-standard rates, by grade level, year, and subject area (t-statistics in parentheses)**

	10th grade				7th grade				4th grade			
	Spring 2006		Spring 2007		Spring 2006		Spring 2007		Spring 2006		Spring 2007	
	Reading and Writing	Math	Reading and Writing	Math	Reading and Writing	Math	Reading and Writing	Math	Reading and Writing	Math	Reading and Writing	Math
Intercept	2.58* (129.00)	.64* (64.00)	2.74* (137.00)	.59* (59.00)	1.01* (101.00)	.65* (65.00)	1.44* (72.00)	.95* (95.00)	1.31* (65.50)	1.12* (112.00)	1.31* (65.50)	1.18* (59.00)
Male	-.66* (-33.00)	.25* (12.50)	-.68* (-22.67)	.28* (14.00)	-.64* (-32.00)	-.04 (-2.00)	-.73* (-36.50)	-.06 (-3.00)	-.67* (-33.50)	.04 (2.00)	-.71* (-35.50)	-.001 (-.05)
African American	-.73* (-18.25)	-1.17* (-29.25)	-.76* (-15.20)	-1.14* (-28.50)	-.59* (-14.75)	-1.05* (-26.25)	-.52* (-13.00)	-1.02* (-25.50)	-.46* (-11.50)	-.95* (-23.75)	-.48* (-12.00)	-.98* (-24.50)
American Indian	-.69* (-11.50)	-.66* (-11.00)	-.61* (-8.71)	-.64* (-10.67)	-.67* (-13.40)	-.86* (-17.20)	-.75* (-15.00)	-.81* (-16.20)	-.62* (-12.40)	-.72* (-14.40)	-.66* (-13.20)	-.81* (-16.20)
Asian	.16* (4.00)	.26* (8.67)	.27* (5.40)	.24* (8.00)	.30* (10.00)	.28* (9.33)	.40* (13.33)	.32* (10.67)	.56* (18.67)	.24* (8.00)	.58* (19.33)	.24* (8.00)
Hispanic	-.50* (-12.50)	-.66* (-22.00)	-.32* (-8.00)	-.69* (-23.00)	-.40* (-13.33)	-.61* (-20.33)	-.31* (-10.33)	-.52* (-17.33)	-.18* (-6.00)	-.46* (-15.33)	-.15* (-5.00)	-.46* (-15.33)
Free/reduced-price meals	-.97* (-48.50)	-.92* (-46.00)	-.85* (-28.33)	-.79* (-39.50)	-.88* (-44.00)	-.90* (-45.00)	-.89* (-44.50)	-.92* (-46.00)	-.78* (-39.00)	-.83* (-41.50)	-.89* (-44.50)	-.91* (-45.50)
English language learner	-1.90* (-38.00)	-1.24* (-20.67)	-1.87* (-37.40)	-1.30* (-26.00)	-1.85* (-30.83)	-1.50* (-30.00)	-2.17* (-36.17)	-1.97* (-32.83)	-1.18* (-29.50)	-1.19* (-29.75)	-1.57* (-39.25)	-1.53* (-38.25)
Disability	-2.37* (-52.25)	-2.15* (-43.00)	-2.38* (-59.50)	-2.19* (-43.80)	-2.36* (-47.20)	-2.27* (-56.75)	-2.34* (-58.50)	-2.28* (-57.00)	-1.58* (-52.67)	-1.49* (-49.67)	-1.54* (-51.33)	-1.50* (-50.00)
Number of students	67,253	68,485	59,222	63,772	73,432	74,353	72,066	73,039	69,645	70,557	70,846	71,859
AUC <sup>†</sup>	0.768	0.702	0.764	0.696	0.727	0.715	0.742	0.728	0.724	0.718	0.733	0.727
$\sqrt{\ln(N)}$	3.33	3.34	3.31	3.33	3.35	3.35	3.34	3.35	3.34	3.34	3.34	3.34

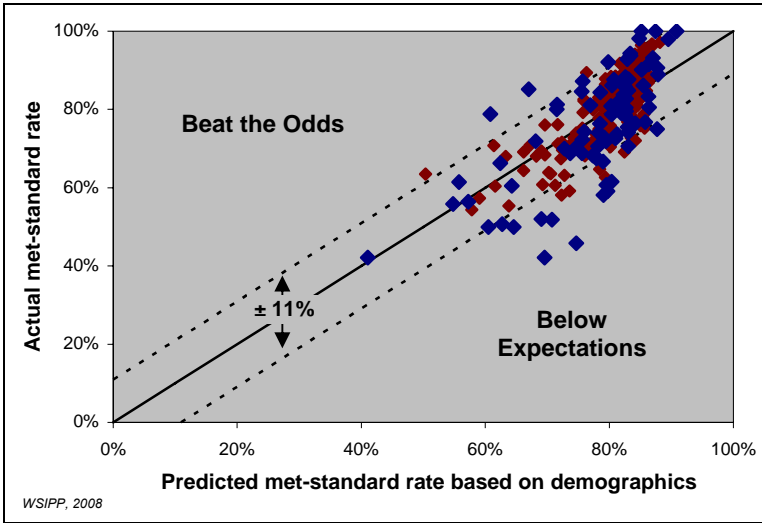
<sup>†</sup> AUC = Area Under the Receiver Operating Characteristic Curve (AUC). The AUC ranges from 0.500 to 1.00, and indicates how well the characteristics in the analysis explain WASL met-standard rates. An AUC of 1.00 means that one could determine whether a student met standard on the WASL simply by knowing his or her combination of characteristics. An AUC of 0.500 would indicate that the set of characteristics does not distinguish students by their performance on the WASL. See: M. E. Rice & G. T. Harris. (2005). Comparing effect sizes in follow-up studies: ROC Area, Cohen's *d*, and *r*. *Law and Human Behavior*, 29(5): 615-620; J. A. Swets. (1988). Measuring the accuracy of diagnostic systems. *Science*, 240: 1285-1293.

\* Denotes a statistically significant association with WASL met-standard rates ( $t > \sqrt{\ln(N)}$ ). Conventional tests of statistical significance use a threshold of  $t > |1.96|$ , which corresponds to a two-tailed *p* value of .05. For large sample sizes, Adrian Raftery, a statistician at the University of Washington, recommends a Bayesian approach for assessing the statistical significance of coefficients; these sample-specific thresholds are given in the last row of the table (e.g.,  $\sqrt{\ln(67,253)} = 3.33$ ). This method yields more conservative estimates of statistical significance. See: A. Raftery. (1995). Bayesian model selection in social research. *Sociological Methodology*, 25: 111-163; J. R. Warren, E. Grodsky, & J. C. Lee. (2008). State high school exit examinations and postsecondary labor market outcomes. *Sociology of Education*, 81: 77-107.

# 10TH GRADE

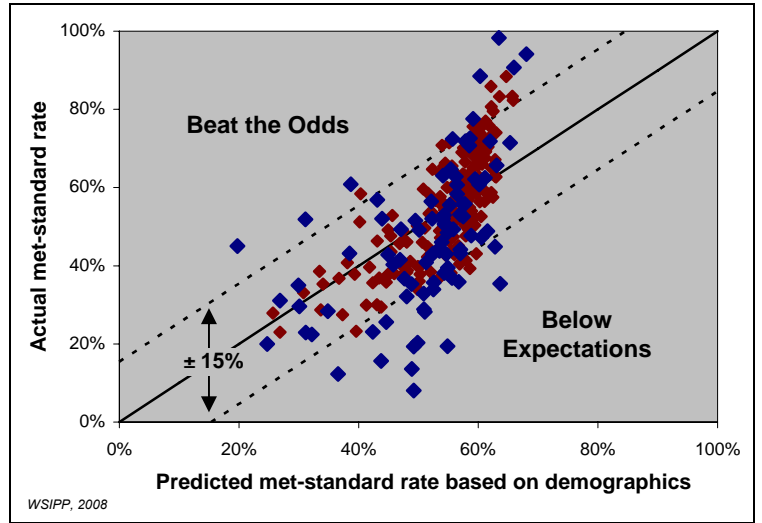
## Reading and Writing

Spring 2006

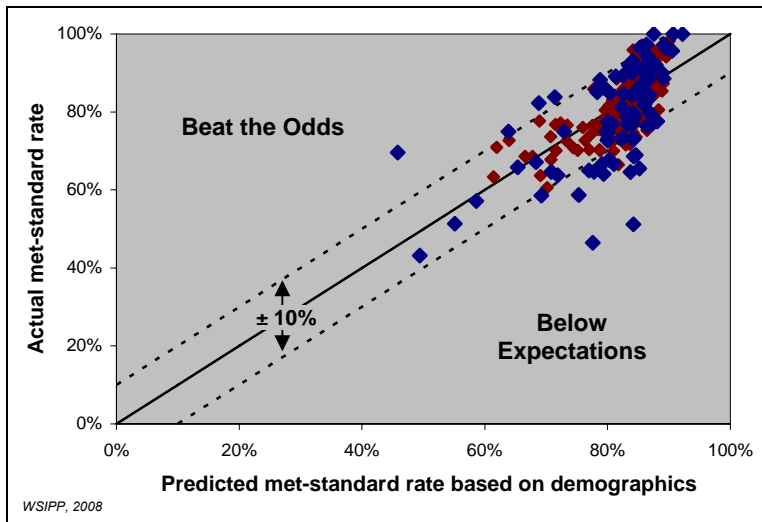


## Math

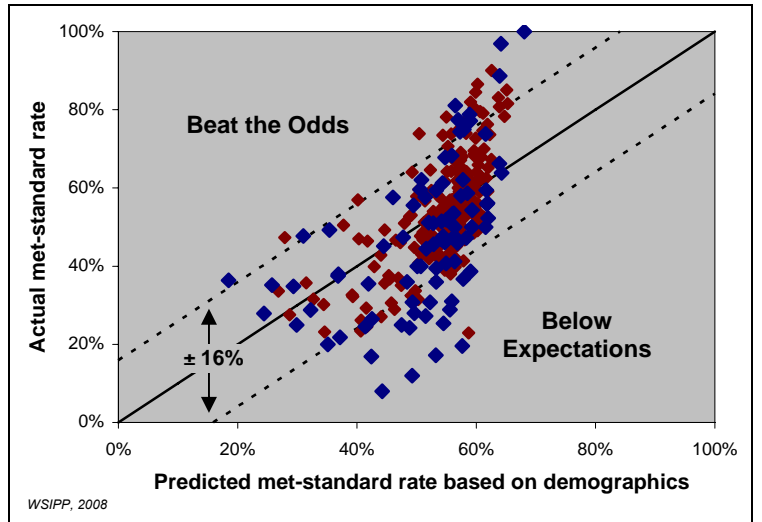
Spring 2006



Spring 2007



Spring 2007



Note: Blue dots represent small schools (25–100 students); red dots represent large schools (greater than 100 students).

### Beat the Odds: 10th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bainbridge Island	Bainbridge	86.2%	61.1%	25.1%	49.0%	1.9%	1.8%	4.6%	3.1%	4.9%	0.7%	9.5%	367
Battle Ground	Cam Jr/Sr High <sup>‡</sup>	89.7%	64.9%	24.8%	42.7%	0.0%	3.2%	2.3%	1.1%	9.4%	0.0%	0.0%	49
Bellevue	International Sch. <sup>‡</sup>	82.7%	64.8%	17.9%	50.7%	1.7%	0.1%	37.4%	2.4%	9.4%	0.9%	4.3%	373
Bellevue	Newport	97.6%	63.8%	33.8%	52.8%	0.8%	0.0%	29.4%	0.8%	6.6%	0.0%	9.0%	62
Bellingham	Sehome	79.9%	59.8%	20.1%	49.4%	0.9%	2.3%	5.6%	4.8%	17.8%	2.0%	6.8%	233
Bridgeport	Bridgeport	40.7%	19.1%	21.6%	53.3%	1.3%	0.0%	0.0%	86.9%	100.0%	67.6%	2.3%	42
Highline	Aviation	82.8%	59.6%	23.2%	64.6%	7.3%	3.5%	19.4%	5.2%	29.2%	1.5%	0.9%	72
Issaquah	Issaquah	82.4%	65.5%	17.0%	48.1%	1.4%	0.4%	17.7%	2.7%	2.6%	0.3%	3.6%	387
Issaquah	Skyline	82.0%	63.7%	18.3%	49.2%	1.0%	0.6%	17.3%	2.1%	4.4%	1.9%	5.8%	389
Lake Chelan	Chelan	67.3%	44.6%	22.8%	52.3%	0.0%	0.6%	0.5%	34.5%	73.0%	4.9%	4.9%	93
Lake Washington	Eastlake	82.9%	63.6%	19.2%	50.7%	1.5%	0.2%	9.0%	2.1%	3.9%	0.0%	6.5%	418
Lake Washington	International Sch. <sup>‡</sup>	97.1%	68.0%	29.0%	39.9%	0.0%	0.0%	21.0%	2.0%	0.0%	0.0%	0.0%	53
Mercer Island	Mercer Island	89.2%	63.6%	25.6%	49.3%	0.8%	0.0%	18.4%	1.6%	1.8%	2.0%	7.8%	337
Methow Valley	Liberty Bell Jr/Sr	79.3%	57.8%	21.5%	45.7%	1.0%	2.7%	2.4%	1.4%	33.2%	1.4%	4.7%	43
Mount Baker	Mount Baker	74.8%	55.1%	19.7%	47.3%	1.4%	8.2%	2.9%	5.3%	41.8%	4.5%	1.8%	142
Northshore	Inglemoor	80.0%	60.9%	19.1%	50.5%	2.6%	1.3%	13.7%	6.3%	12.8%	1.8%	6.0%	594
Pullman	Pullman	78.3%	59.7%	18.6%	55.4%	3.4%	1.0%	12.4%	2.2%	23.7%	1.3%	5.4%	158
Seattle	Garfield	74.6%	56.8%	17.8%	48.1%	16.9%	1.1%	22.9%	5.4%	24.4%	7.6%	0.9%	331
Seattle	Roosevelt	76.4%	56.5%	19.9%	46.3%	16.4%	1.7%	24.8%	5.6%	22.8%	7.4%	2.0%	347

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Beat the Odds: 10th-Grade Reading and Writing

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bainbridge Island	Bainbridge	96.8%	85.4%	11.4%	49.6%	1.8%	1.7%	4.9%	3.1%	4.6%	0.7%	9.2%	358
Bellevue	International Sch. <sup>‡</sup>	100.0%	86.3%	13.7%	52.0%	0.8%	0.0%	29.6%	0.9%	6.8%	0.0%	8.4%	60
White Salmon	Columbia	88.0%	75.6%	12.4%	47.1%	1.1%	0.6%	2.8%	28.6%	45.5%	12.9%	8.1%	79

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Below Expectations: 10th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Auburn	Auburn	34.3%	51.9%	-17.7%	51.6%	4.4%	4.0%	6.9%	11.8%	38.8%	6.7%	8.3%	375
Davenport	Davenport	38.1%	56.3%	-18.3%	51.9%	0.0%	3.0%	1.3%	4.6%	44.3%	0.0%	3.0%	34
Edmonds	Scriber Lake <sup>‡</sup>	8.1%	46.7%	-38.6%	40.9%	6.1%	6.7%	1.4%	11.4%	52.4%	2.0%	14.1%	31
Evergreen (Clark)	Legacy <sup>‡</sup>	21.8%	51.8%	-30.0%	41.7%	4.3%	7.4%	1.4%	3.0%	49.5%	1.4%	5.9%	35
Grand Coulee	Lake Roosevelt	30.4%	50.2%	-19.8%	45.9%	0.0%	50.4%	1.0%	2.0%	41.9%	0.0%	1.7%	59
Lake Washington	Best Sr High <sup>‡</sup>	31.5%	50.1%	-18.7%	46.0%	1.9%	1.8%	3.7%	11.3%	46.4%	0.0%	12.6%	27
Marysville	Marysville Altern. <sup>‡</sup>	20.2%	47.8%	-27.6%	52.4%	1.9%	18.2%	0.0%	13.1%	65.8%	1.9%	1.9%	28
Onalaska	Onalaska	33.3%	53.0%	-19.7%	53.1%	0.0%	14.5%	2.3%	5.9%	47.9%	1.7%	4.6%	59
Puyallup	Walker <sup>‡</sup>	16.6%	53.3%	-36.7%	54.4%	3.3%	3.4%	1.1%	3.4%	39.1%	1.1%	10.1%	45
Shelton	Choice Alternative <sup>‡</sup>	15.7%	49.2%	-33.6%	46.2%	2.0%	11.7%	2.0%	5.6%	62.3%	0.0%	5.6%	28
Spokane	Havermale <sup>‡</sup>	14.6%	39.5%	-24.9%	39.9%	10.0%	27.4%	1.6%	6.3%	80.5%	0.0%	10.0%	64
Vancouver	Lewis and Clark <sup>‡</sup>	22.8%	52.2%	-29.3%	43.6%	3.8%	3.0%	0.0%	9.2%	54.4%	0.8%	2.3%	66

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Below Expectations: 10th-Grade Reading and Writing

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Granite Falls	Granite Falls	69.3%	83.0%	-13.7%	47.8%	0.7%	1.7%	2.0%	4.0%	35.3%	0.0%	8.1%	150
Longview	R. A. Long	69.0%	82.9%	-13.9%	49.9%	1.2%	2.8%	3.5%	9.8%	46.2%	3.7%	0.3%	210
Mount Adams	White Swan	54.3%	69.9%	-15.6%	46.1%	0.0%	59.7%	0.0%	24.7%	87.4%	5.6%	1.7%	52
Onalaska	Onalaska	67.5%	82.3%	-14.8%	54.0%	0.0%	12.4%	2.3%	7.0%	47.9%	2.7%	0.0%	58
Spokane	Havermale <sup>‡</sup>	44.3%	73.6%	-29.3%	45.2%	8.9%	23.9%	1.8%	7.1%	80.5%	0.0%	9.7%	57
Toutle	Toutle Lake	64.6%	81.9%	-17.2%	58.6%	0.0%	5.2%	0.0%	1.4%	27.3%	0.0%	10.0%	46
Vancouver	Lewis and Clark <sup>‡</sup>	62.3%	82.4%	-20.1%	37.8%	5.1%	3.3%	0.8%	9.7%	55.4%	1.6%	2.3%	62

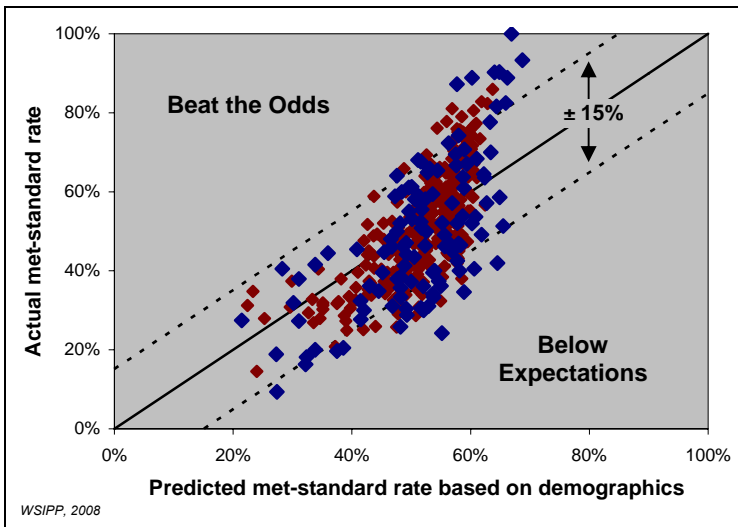
<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)



# 7TH GRADE

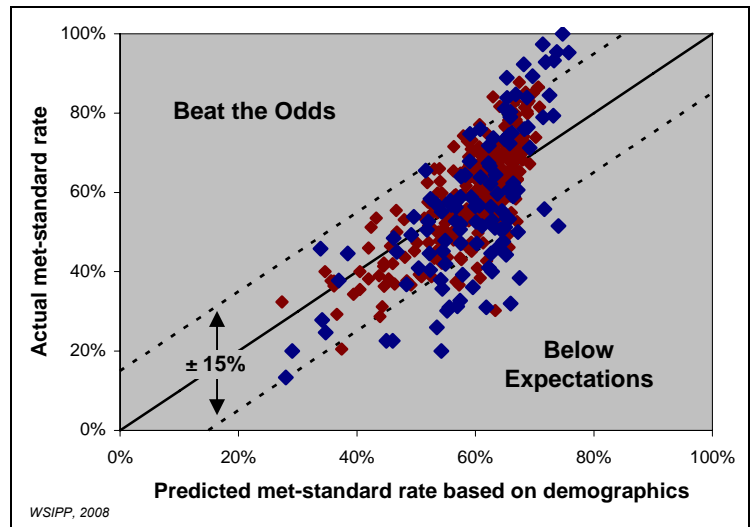
## Reading and Writing

Spring 2006

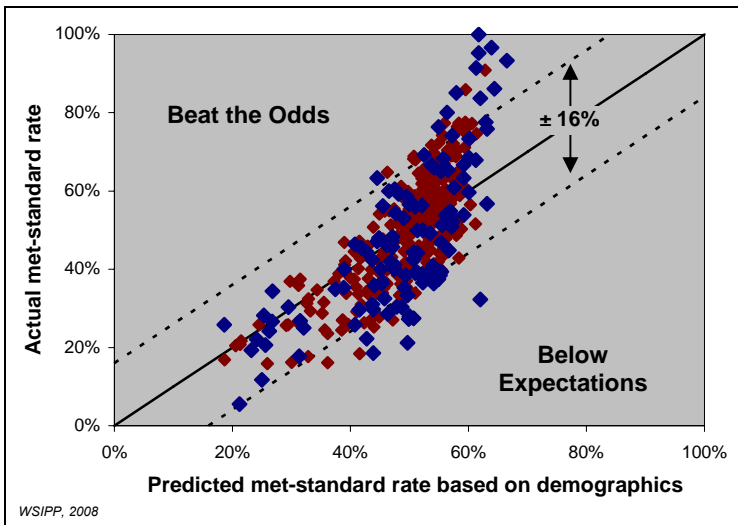


## Math

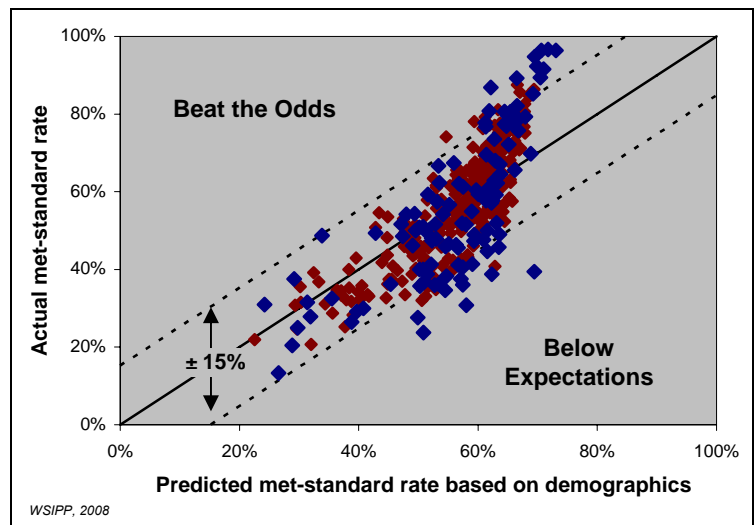
Spring 2006



Spring 2007



Spring 2007



Note: Blue dots represent small schools (25–100 students); red dots represent large schools (greater than 100 students).

### Beat the Odds: 7th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bainbridge Island	Woodward Middle	85.4%	64.0%	21.4%	48.7%	1.1%	0.5%	4.4%	1.0%	4.4%	0.2%	7.9%	284
Bellevue	Chinook Middle	81.5%	62.7%	18.8%	51.5%	1.7%	0.4%	18.9%	2.4%	8.8%	5.1%	5.8%	267
Bellevue	International Sch. †	90.4%	63.9%	26.5%	39.8%	1.2%	0.0%	18.7%	1.8%	4.2%	0.0%	9.6%	83
Bellevue	Tyee Middle	82.0%	64.4%	17.6%	49.3%	1.9%	0.6%	34.4%	2.5%	9.4%	0.0%	8.1%	264
Burlington Edison	Bay View Elem.	77.4%	60.9%	16.5%	51.6%	1.7%	0.8%	0.8%	5.0%	15.8%	1.7%	7.5%	60
Edmonds	Maplewood Coop †	84.4%	65.6%	18.8%	45.3%	0.0%	0.0%	2.9%	0.9%	2.9%	0.0%	5.8%	52
Federal Way	Public Academy †	92.3%	66.1%	26.2%	46.5%	8.5%	0.8%	42.6%	4.5%	10.9%	0.0%	0.8%	65
Lake Washington	Northstar †	86.2%	63.1%	23.0%	58.9%	1.4%	0.0%	13.4%	0.0%	4.3%	0.0%	11.0%	31
Lake Washington	Environmental †	90.4%	67.0%	23.5%	47.2%	1.3%	0.0%	10.7%	1.3%	1.3%	0.0%	4.0%	37
Lake Washington	Inglewood	80.7%	64.4%	16.3%	53.1%	1.8%	0.4%	11.0%	2.3%	2.2%	0.0%	7.8%	380
Lake Washington	International Sch. †	94.9%	69.8%	25.1%	42.3%	2.0%	0.6%	24.0%	0.0%	0.0%	0.0%	0.0%	72
Lake Washington	Stella Schola †	96.7%	67.8%	28.9%	41.7%	5.0%	1.7%	13.3%	0.0%	1.7%	0.0%	0.0%	30
Mercer Island	Islander Middle	89.2%	64.7%	24.5%	54.0%	0.9%	0.3%	19.2%	2.3%	2.1%	1.3%	7.7%	312
Nooksack Valley	Nooksack Valley	69.4%	50.5%	19.0%	44.9%	1.5%	6.3%	1.4%	18.7%	45.2%	4.8%	9.5%	136
Northshore	Leota Jr	75.7%	58.1%	17.7%	56.1%	0.9%	1.0%	10.1%	9.8%	17.1%	3.3%	12.2%	214
Northshore	Northshore Jr	75.7%	58.8%	17.0%	49.3%	2.9%	0.7%	14.5%	7.5%	14.4%	2.7%	12.2%	289
Seattle	Eckstein Middle	79.2%	59.7%	19.6%	49.3%	8.0%	1.9%	17.4%	8.0%	14.5%	4.5%	6.3%	388
Seattle	Salmon Bay †	76.2%	57.8%	18.4%	56.1%	6.8%	3.3%	8.1%	7.8%	9.0%	0.0%	13.6%	106
Seattle	Washington Middle	73.1%	55.0%	18.1%	50.7%	19.9%	0.3%	28.4%	10.2%	31.8%	6.0%	3.0%	318
Spokane	Libby Center †	98.2%	66.2%	32.0%	60.2%	0.0%	0.0%	1.8%	0.0%	12.8%	0.0%	0.0%	28
Vancouver	V.S.A.A. †	83.6%	62.2%	21.4%	26.6%	4.1%	0.5%	4.6%	7.8%	19.6%	0.0%	1.6%	89

† Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)



### Beat the Odds: 7th-Grade Reading and Writing

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bainbridge Island	Woodward Middle	83.5%	65.6%	18.0%	48.8%	1.1%	0.5%	4.3%	1.0%	4.4%	0.2%	7.8%	286
Battle Ground	Cam Jr/Sr <sup>‡</sup>	87.8%	69.6%	18.2%	42.2%	1.7%	0.0%	4.3%	2.6%	6.9%	0.0%	0.0%	58
Bellevue	International Sch. <sup>‡</sup>	89.8%	66.8%	22.9%	39.8%	1.2%	0.0%	18.7%	1.8%	4.2%	0.0%	9.6%	83
Edmonds	Maplewood Coop <sup>‡</sup>	82.8%	66.5%	16.3%	45.3%	0.0%	0.0%	2.8%	0.9%	2.8%	0.0%	7.5%	53
Federal Way	Public Academy <sup>‡</sup>	92.9%	69.3%	23.6%	46.0%	8.6%	0.8%	43.0%	4.5%	11.0%	0.0%	0.8%	64
Issaquah	Beaver Lake	84.0%	65.8%	18.1%	50.3%	2.6%	0.3%	19.6%	2.4%	3.6%	0.2%	8.3%	309
Lake Chelan	Chelan Middle	69.4%	53.3%	16.0%	52.2%	0.0%	2.2%	0.6%	33.3%	49.5%	3.3%	5.6%	90
Lake Washington	Northstar <sup>‡</sup>	83.3%	63.1%	20.2%	58.9%	1.4%	0.0%	13.4%	0.0%	4.3%	0.0%	11.0%	31
Lake Washington	Environmental <sup>‡</sup>	93.1%	68.8%	24.4%	47.2%	1.3%	0.0%	10.7%	1.3%	1.3%	0.0%	4.0%	37
Lake Washington	Inglewood Jr	81.8%	65.7%	16.1%	53.1%	1.8%	0.4%	11.0%	2.3%	2.2%	0.0%	7.5%	379
Lake Washington	International Sch. <sup>‡</sup>	94.3%	72.2%	22.0%	42.3%	2.0%	0.6%	24.0%	0.0%	0.0%	0.0%	0.0%	72
Lake Washington	Stella Schola <sup>‡</sup>	100.0%	70.8%	29.2%	41.7%	5.0%	1.7%	13.3%	0.0%	1.7%	0.0%	0.0%	30
Mercer Island	Islander Middle	86.8%	65.5%	21.3%	53.6%	1.0%	0.3%	19.1%	2.3%	2.1%	1.3%	7.7%	311
Pe Ell	Pe Ell	71.8%	56.2%	15.6%	49.0%	0.0%	4.4%	1.5%	6.4%	51.9%	0.0%	5.5%	30
Seattle	Salmon Bay <sup>‡</sup>	80.8%	60.6%	20.2%	56.2%	6.9%	2.9%	7.3%	8.1%	9.2%	0.0%	11.2%	104
Seattle	Washington Middle	78.9%	59.2%	19.7%	50.3%	19.3%	0.3%	28.9%	10.4%	31.9%	6.1%	2.6%	312
Spokane	Libby Center <sup>‡</sup>	90.9%	66.0%	24.8%	60.2%	0.0%	0.0%	1.8%	0.0%	12.8%	0.0%	0.0%	28
University Place	Drum Intermediate	82.6%	59.9%	22.7%	50.0%	17.7%	1.7%	12.4%	3.1%	21.3%	0.9%	8.2%	205

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Below Expectations: 7th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bethel	Cedarcrest Middle	33.3%	51.4%	-18.0%	49.1%	19.3%	2.3%	15.3%	12.2%	42.9%	0.2%	6.4%	273
Concrete	Concrete Middle	32.5%	51.6%	-19.2%	51.1%	0.8%	2.7%	1.0%	1.5%	49.2%	0.0%	13.8%	59
North Beach	North Beach Middle	31.8%	52.1%	-20.2%	53.3%	1.8%	14.7%	2.7%	4.4%	47.5%	0.0%	7.0%	55
Shelton	Olympic Middle	31.8%	49.5%	-17.7%	51.3%	0.2%	11.8%	2.4%	11.4%	49.7%	3.9%	9.8%	256

### Below Expectations: 7th-Grade Reading and Writing

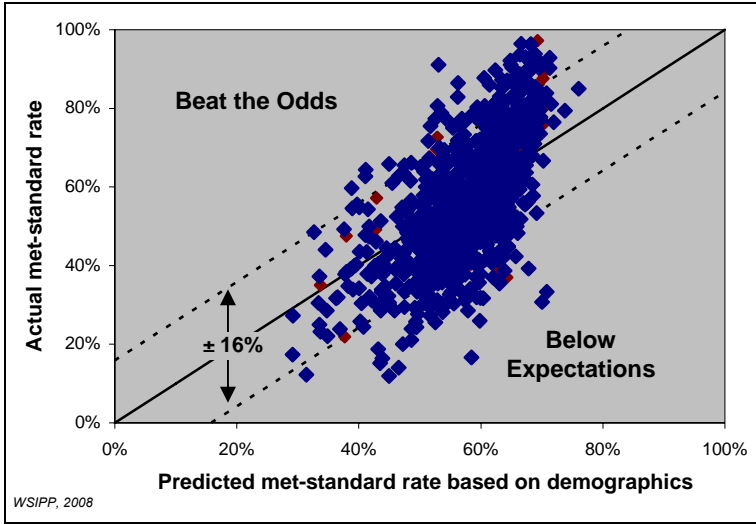
District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bethel	Frontier Jr	32.1%	57.6%	-25.5%	50.8%	6.6%	4.0%	5.4%	5.7%	27.1%	0.0%	12.1%	298
Castle Rock	Castle Rock Middle	41.8%	60.0%	-18.2%	50.5%	1.0%	0.6%	0.5%	2.1%	34.5%	0.6%	5.6%	94
Concrete	Concrete Middle	30.7%	53.3%	-22.6%	51.1%	0.8%	2.7%	1.0%	1.5%	49.2%	0.0%	13.8%	59
Darrington	Darrington Middle	35.1%	56.6%	-21.5%	57.0%	1.2%	3.8%	0.0%	0.0%	48.7%	0.0%	3.8%	39
Morton	Morton Jr/Sr	25.2%	53.0%	-27.9%	47.2%	3.5%	4.0%	0.0%	0.0%	50.2%	0.0%	14.1%	29
North Beach	North Beach Middle	32.2%	54.7%	-22.5%	51.4%	1.8%	14.7%	2.7%	4.4%	47.5%	0.0%	6.0%	55
Ritzville	Ritzville Grade Sch.	35.2%	59.5%	-24.3%	55.9%	0.0%	0.0%	5.0%	8.4%	30.6%	0.0%	7.3%	30
Seattle	African Amer. Acad. <sup>‡</sup>	19.5%	38.6%	-19.1%	44.0%	93.1%	1.0%	0.0%	3.2%	91.7%	0.0%	5.1%	40
Seattle	Meany Middle	24.8%	40.6%	-15.8%	50.6%	58.8%	3.1%	14.2%	14.0%	71.9%	16.1%	3.4%	114
Toutle	Toutle Lake HS	38.1%	58.9%	-20.8%	52.4%	0.0%	1.0%	0.0%	1.1%	25.8%	0.0%	11.4%	49
Vancouver	Discovery Middle	31.2%	52.4%	-21.2%	49.6%	4.8%	2.3%	4.8%	12.8%	59.5%	0.0%	9.3%	199
Waitsburg	Preston Hall Middle	35.5%	60.0%	-24.5%	47.5%	1.7%	1.7%	1.7%	1.7%	45.9%	0.0%	1.7%	30

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

# 4TH GRADE

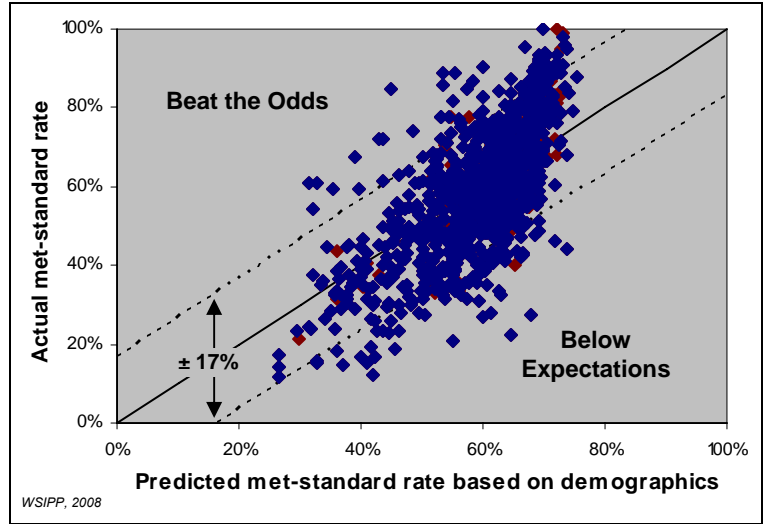
## Reading and Writing

Spring 2006

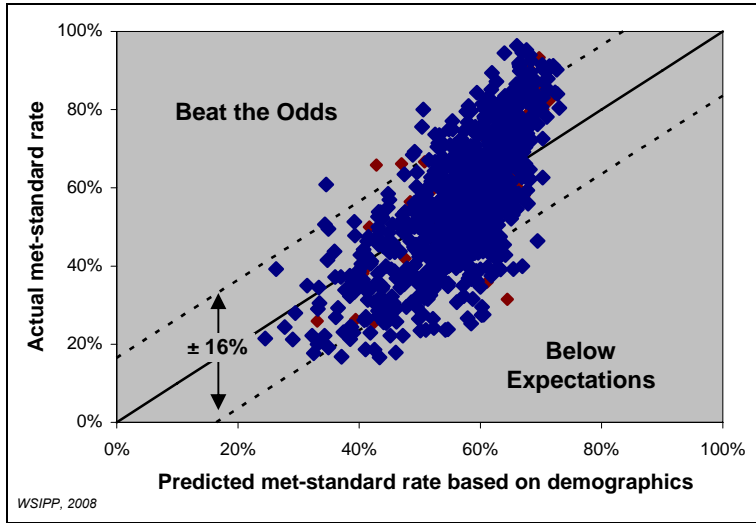


## Math

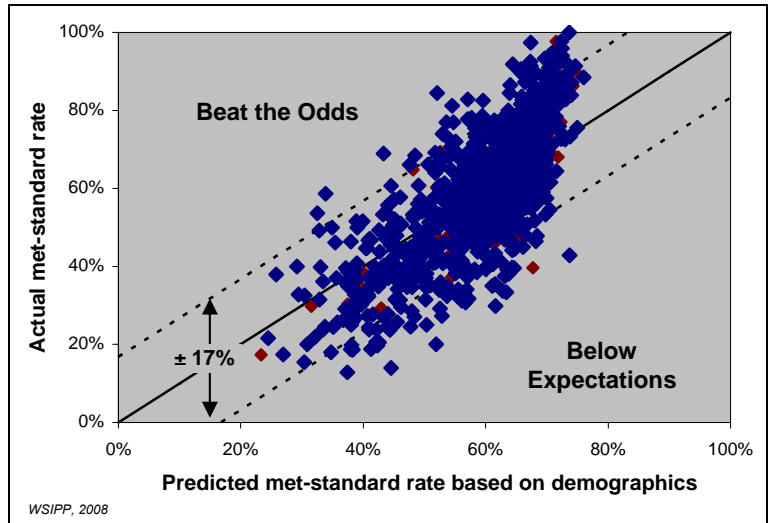
Spring 2006



Spring 2007



Spring 2007



Note: Blue dots represent small schools (25–100 students); red dots represent large schools (greater than 100 students).

### Beat the Odds: 4th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bainbridge Island	Capt Charles Wilkes	91.1%	70.3%	20.9%	50.6%	2.5%	0.0%	5.1%	1.9%	4.4%	0.0%	13.3%	79
Bellevue	Bennett	90.2%	70.3%	19.9%	53.5%	0.8%	0.0%	21.9%	4.1%	7.4%	5.8%	9.7%	62
Bellevue	Cherry Crest	94.5%	71.5%	23.0%	55.5%	0.0%	0.0%	10.9%	1.9%	1.9%	0.0%	13.2%	54
Bellevue	Medina	92.1%	72.1%	20.0%	60.0%	1.2%	0.6%	12.1%	1.2%	1.8%	0.0%	10.9%	83
Bremerton	Kitsap	80.6%	55.8%	24.8%	40.0%	9.7%	3.6%	7.1%	10.9%	63.3%	2.1%	11.9%	48
Eastmont	Rock Island	70.2%	45.9%	24.3%	53.7%	0.0%	4.6%	1.3%	55.6%	78.2%	21.3%	10.6%	32
Edmonds	Challenge <sup>‡</sup>	100.0%	71.8%	28.2%	47.4%	2.1%	2.1%	28.4%	2.2%	9.3%	0.0%	8.4%	48
Everett	Cedar Wood	92.5%	72.0%	20.6%	58.2%	1.5%	0.5%	31.2%	3.3%	7.9%	2.4%	7.2%	100
Evergreen (Clark)	Fishers Landing	88.5%	70.2%	18.4%	52.6%	2.1%	0.5%	19.8%	1.0%	10.9%	1.6%	10.9%	96
Kelso	Wallace	71.4%	45.9%	25.5%	56.2%	3.1%	14.9%	1.0%	16.8%	74.9%	15.8%	20.2%	48
Kennewick	Ridge View	85.2%	66.2%	19.0%	58.2%	0.7%	0.6%	0.7%	13.0%	19.8%	5.8%	9.8%	75
Lake Washington	Juanita	88.5%	65.2%	23.3%	52.4%	2.8%	3.1%	11.8%	9.6%	22.9%	5.8%	9.5%	52
Mercer Island	Island Park	94.2%	70.3%	23.8%	54.7%	1.2%	0.6%	18.7%	3.5%	4.1%	4.7%	11.0%	86
Moses Lake	Lakeview Terrace	84.9%	54.0%	30.9%	42.0%	2.3%	0.8%	1.4%	35.9%	65.8%	6.3%	11.4%	66
Moses Lake	Peninsula	73.5%	53.3%	20.2%	51.1%	0.6%	3.5%	1.9%	35.5%	61.0%	11.3%	12.5%	95
Nooksack Valley	Nooksack	86.7%	53.7%	32.9%	48.9%	0.0%	6.7%	1.1%	22.2%	52.2%	14.4%	17.8%	45
Northshore	Sunrise	89.1%	69.5%	19.6%	52.6%	2.0%	0.0%	5.8%	1.8%	2.2%	0.0%	17.1%	51
Northshore	Wellington	90.8%	71.5%	19.3%	53.0%	1.2%	1.2%	10.8%	3.6%	6.9%	1.2%	7.7%	83
Port Angeles	Jefferson	82.7%	58.9%	23.8%	44.9%	2.4%	7.3%	2.4%	5.3%	54.9%	0.0%	12.8%	40
Raymond	Raymond	76.0%	55.5%	20.5%	57.2%	0.0%	3.4%	10.7%	14.7%	67.7%	6.1%	13.1%	42
Seattle	Bryant	89.4%	68.4%	21.0%	50.2%	3.1%	1.9%	19.3%	6.2%	7.5%	4.3%	12.5%	81
Seattle	Lowell	98.9%	71.8%	27.0%	54.5%	2.5%	1.2%	21.9%	3.2%	4.3%	0.0%	9.8%	122
Seattle	Loyal Heights	88.4%	69.9%	18.5%	48.1%	4.1%	0.8%	6.0%	5.7%	10.9%	0.0%	8.3%	61
Seattle	Maple	80.0%	56.3%	23.7%	50.7%	11.2%	2.4%	67.2%	11.4%	62.2%	19.4%	5.6%	63
Seattle	Wedgwood	97.9%	72.7%	25.3%	49.4%	0.0%	0.9%	37.0%	5.5%	12.3%	0.0%	6.2%	50
Shoreline	Highland Terrace	93.1%	66.3%	26.9%	62.8%	10.6%	0.0%	12.3%	5.9%	19.2%	0.0%	11.7%	39
Spokane	Wilson	93.1%	71.7%	21.4%	52.1%	1.0%	0.0%	0.0%	2.0%	12.0%	0.0%	4.9%	50
Toppenish	Garfield	59.0%	34.7%	24.3%	49.0%	0.0%	15.7%	0.0%	78.6%	95.6%	36.9%	6.3%	65

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Beat the Odds: 4th-Grade Reading and Writing

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Arlington	Pioneer	82.8%	63.4%	19.5%	49.9%	3.2%	1.1%	8.0%	8.1%	18.5%	5.4%	10.2%	93
Bainbridge Island	Capt Charles Wilkes	91.8%	66.4%	25.3%	50.6%	2.5%	0.0%	5.1%	1.9%	4.4%	0.0%	13.3%	79
Bellevue	Cherry Crest	89.6%	68.5%	21.1%	54.5%	0.0%	0.0%	11.3%	1.9%	1.9%	0.0%	9.3%	52
Bellevue	Medina	96.4%	67.1%	29.3%	60.0%	1.2%	0.6%	12.1%	1.2%	1.8%	0.0%	10.9%	83
Bellingham	Happy Valley	82.0%	64.1%	18.0%	55.6%	4.0%	2.7%	5.3%	2.0%	16.8%	1.3%	9.4%	76
Bremerton	Kitsap Lake	79.0%	55.8%	23.1%	40.9%	8.7%	3.7%	7.2%	11.2%	62.5%	2.2%	12.1%	47
Central Valley	Chester	89.3%	65.4%	24.0%	52.5%	1.0%	0.0%	1.0%	0.0%	8.7%	1.0%	11.7%	52
Eastmont	Cascade	77.8%	58.8%	19.0%	46.7%	0.0%	0.7%	1.3%	25.5%	33.6%	9.3%	11.2%	77
Edmonds	Challenge <sup>‡</sup>	92.4%	70.0%	22.4%	46.3%	2.2%	2.2%	29.0%	2.2%	9.4%	0.0%	8.5%	47
Everett	Cedar Wood	90.9%	68.8%	22.1%	58.1%	1.5%	0.5%	31.4%	3.4%	8.0%	2.4%	6.7%	99
Evergreen (Clark)	Fishers Landing	85.9%	66.9%	19.1%	52.1%	2.1%	0.5%	19.8%	1.0%	10.9%	1.6%	10.9%	96
Issaquah	Endeavour	86.1%	68.6%	17.4%	49.0%	1.3%	0.8%	28.6%	4.4%	9.1%	2.2%	10.0%	115
Kennewick	Ridge View	87.4%	62.1%	25.4%	58.0%	0.7%	0.6%	0.7%	12.3%	19.2%	5.0%	9.2%	75
Kennewick	Sunset View	89.0%	67.2%	21.8%	42.3%	2.0%	1.0%	2.9%	5.5%	12.1%	1.0%	8.5%	101
Kennewick	Washington	79.0%	58.2%	20.8%	46.8%	3.7%	1.9%	1.2%	20.3%	57.1%	1.3%	5.6%	81
Lake Washington	Elizabeth Blackwell	91.9%	68.8%	23.2%	62.1%	2.5%	0.6%	16.2%	1.9%	1.9%	0.0%	6.2%	81
Lake Washington	Horace Mann	90.4%	67.7%	22.6%	51.9%	1.5%	0.0%	8.4%	2.1%	6.9%	0.0%	9.2%	68
Lake Washington	Juanita	88.3%	62.7%	25.6%	51.6%	2.9%	3.2%	12.1%	8.8%	22.3%	5.9%	9.7%	51
Lake Washington	Laura Ingalls	92.6%	69.6%	23.1%	55.7%	0.0%	0.0%	11.9%	1.3%	2.8%	0.0%	5.9%	76
Lake Washington	Samantha Smith	90.5%	69.9%	20.6%	54.3%	3.8%	0.5%	20.0%	1.9%	1.9%	0.0%	6.7%	105
Mead	Meadow Ridge	80.4%	60.6%	19.8%	53.5%	0.6%	1.7%	2.2%	2.3%	27.6%	1.1%	14.4%	90
Mercer Island	Island Park	90.8%	67.7%	23.1%	55.8%	1.2%	0.0%	18.8%	3.6%	3.6%	4.9%	7.9%	83
Moses Lake	Lakeview Terrace	78.7%	55.1%	23.6%	41.4%	2.3%	0.8%	1.4%	35.9%	64.9%	5.7%	9.1%	64
Nooksack Valley	Nooksack	85.6%	51.8%	33.7%	48.9%	0.0%	6.7%	1.1%	22.2%	52.2%	14.4%	17.8%	45
Northshore	East Ridge	84.4%	64.5%	20.0%	60.1%	0.0%	0.7%	4.1%	2.0%	3.4%	0.7%	14.8%	74
Northshore	Sunrise	92.8%	65.9%	26.9%	52.1%	2.0%	0.0%	5.9%	1.8%	1.1%	0.0%	16.2%	50
Northshore	Wellington	89.4%	67.9%	21.5%	53.0%	1.2%	1.2%	10.8%	3.6%	6.9%	1.2%	7.7%	83
Raymond	Raymond	72.1%	52.3%	19.8%	57.2%	0.0%	3.4%	10.7%	14.7%	67.7%	6.1%	13.1%	42
Seattle	Bryant	86.0%	67.0%	19.0%	49.5%	3.2%	1.3%	19.9%	6.3%	7.0%	4.4%	10.2%	79
Seattle	Hay	90.4%	67.9%	22.4%	46.9%	5.7%	3.2%	15.5%	4.2%	15.3%	0.0%	5.5%	60
Seattle	John Muir	75.8%	53.3%	22.4%	49.3%	60.4%	2.1%	24.9%	3.1%	62.6%	4.0%	4.9%	48
Seattle	Lowell	96.0%	68.6%	27.4%	53.9%	2.6%	1.2%	21.8%	3.3%	4.3%	0.0%	9.9%	121
Seattle	Maple	80.0%	58.9%	21.1%	49.9%	11.2%	2.4%	68.0%	10.5%	61.4%	21.0%	5.6%	63
Seattle	McGilvra	87.9%	67.8%	20.1%	46.9%	11.0%	1.1%	23.0%	1.1%	10.5%	0.0%	10.8%	42
Seattle	Montlake	93.6%	66.0%	27.6%	51.8%	11.3%	1.4%	15.8%	2.6%	14.6%	0.0%	8.2%	39
Seattle	Sanislo	77.0%	55.0%	22.0%	47.0%	16.2%	5.0%	29.0%	14.7%	52.1%	18.9%	7.8%	50
Seattle	View Ridge	92.2%	68.9%	23.3%	49.2%	1.7%	0.9%	19.3%	4.4%	3.5%	0.0%	11.5%	57
Seattle	Wedgwood	91.6%	72.0%	19.6%	49.4%	0.0%	0.9%	36.8%	4.6%	11.5%	0.0%	3.9%	49
Shoreline	Lake Forest Park	85.1%	62.9%	22.3%	52.4%	1.1%	1.1%	5.2%	3.1%	13.1%	0.0%	18.2%	50
Shoreline	Ridgecrest	87.3%	64.5%	22.8%	52.2%	7.9%	1.6%	26.9%	4.7%	25.1%	0.0%	11.1%	32
Spokane	Wilson	84.8%	67.5%	17.3%	52.6%	1.0%	0.0%	0.0%	2.0%	12.1%	0.0%	4.0%	50
University Place	Chambers Primary	86.2%	65.7%	20.5%	47.5%	13.8%	0.7%	17.9%	7.6%	20.7%	0.7%	6.9%	73

<sup>‡</sup> Alternative school as identified by the Office of Superintendent of Public Instruction: [www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls](http://www.k12.wa.us/alternativeEd/pubdocs/0506WAAAlternativeSchools.xls) (accessed May 1, 2008)

### Below Expectations: 4th-Grade Math

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Bethel	Roy	33.7%	59.8%	-26.1%	55.7%	4.5%	3.5%	8.2%	7.1%	44.1%	0.0%	18.5%	43
Clover Park	Beachwood	39.4%	61.4%	-22.0%	49.7%	26.7%	0.8%	6.9%	10.6%	25.1%	1.5%	8.3%	67
Darrington	Darrington	39.3%	62.8%	-23.5%	47.5%	0.0%	6.4%	0.0%	0.0%	48.1%	0.0%	9.0%	40
East Valley (Yakima)	East Valley	36.5%	55.2%	-18.8%	54.2%	0.8%	3.0%	0.8%	37.1%	55.7%	6.4%	12.1%	181
Enumclaw	Byron Kibler	35.7%	63.2%	-27.5%	50.5%	4.3%	1.2%	1.2%	9.6%	24.1%	2.8%	16.5%	83
Enumclaw	Westwood	46.0%	65.1%	-19.1%	65.7%	0.8%	1.0%	4.6%	14.4%	25.4%	8.9%	6.6%	56
Everett	Garfield	29.4%	52.9%	-23.5%	51.2%	5.4%	3.9%	4.6%	15.5%	62.8%	8.5%	17.1%	65
Grand Coulee	Wright	25.9%	52.8%	-27.0%	48.2%	0.0%	46.9%	1.2%	7.4%	60.5%	0.0%	8.7%	41
Highline	Midway	21.7%	44.8%	-23.0%	55.5%	14.0%	1.0%	26.4%	39.5%	84.4%	27.9%	4.5%	54
Highline	White Center Hgts	21.6%	41.3%	-19.8%	57.6%	23.2%	0.8%	37.6%	24.8%	89.6%	24.0%	16.9%	63
Lakewood	English Crossing	46.9%	64.4%	-17.5%	53.6%	4.2%	2.1%	5.4%	9.6%	32.8%	2.1%	8.7%	121
Longview	Saint Helens	26.0%	49.1%	-23.0%	52.9%	2.5%	3.9%	3.0%	31.2%	83.9%	10.3%	11.1%	49
Marysville	Marshall	42.9%	64.1%	-21.2%	45.1%	0.0%	3.7%	8.6%	5.8%	26.3%	2.1%	16.7%	69
Marysville	Tulalip	18.6%	42.5%	-23.9%	49.7%	0.0%	72.1%	1.7%	2.9%	76.4%	0.0%	19.0%	35
Orting	Ptarmigan Ridge	39.8%	66.5%	-26.7%	50.6%	1.9%	1.3%	2.4%	6.3%	30.4%	2.0%	6.3%	150
Pioneer	Pioneer	36.1%	61.3%	-25.2%	50.0%	1.9%	1.5%	1.5%	4.1%	54.8%	0.0%	9.7%	73
Renton	Lakeridge	22.6%	44.0%	-21.4%	45.9%	47.8%	1.0%	19.9%	15.2%	77.9%	10.5%	8.9%	56
Seattle	Greenwood	28.9%	48.6%	-19.7%	45.3%	22.7%	6.6%	9.6%	17.8%	63.0%	0.0%	24.5%	31
Sedro Woolley	Clear Lake	37.0%	66.0%	-29.1%	43.9%	1.2%	0.0%	1.7%	4.9%	36.0%	1.2%	6.6%	35
Sedro Woolley	Lyman	34.0%	60.8%	-26.8%	38.0%	2.0%	8.0%	0.0%	6.0%	46.0%	0.0%	12.0%	25
Tacoma	Reed	24.9%	44.8%	-19.9%	57.2%	35.2%	2.2%	15.6%	18.6%	74.7%	8.5%	16.8%	77
Vancouver	Hough	39.0%	58.1%	-19.2%	46.2%	4.9%	4.7%	4.9%	16.7%	55.5%	4.7%	7.4%	35
Washougal	Hathaway	39.4%	61.0%	-21.6%	54.7%	1.9%	0.6%	2.5%	5.0%	49.7%	6.3%	9.4%	80

### Below Expectations: 4th-Grade Reading and Writing

District	School	Actual met-standard rate	Predicted met-standard rate	Difference	% Male	% African American	% American Indian	% Asian	% Hispanic	% Free or reduced meals	% English-language learners	% with disability	Number of students
Aberdeen	McDermoth	36.2%	54.8%	-18.5%	54.3%	0.8%	4.5%	5.5%	15.3%	46.8%	8.5%	15.3%	65
Bethel	Centennial	42.7%	62.1%	-19.4%	50.3%	9.3%	5.2%	5.9%	1.2%	31.0%	0.0%	8.2%	86
Bethel	Roy	36.6%	57.7%	-21.1%	54.7%	4.8%	3.6%	7.4%	7.4%	43.8%	0.0%	14.5%	41
Castle Rock	Castle Rock	41.8%	62.6%	-20.8%	49.5%	0.4%	0.4%	4.0%	2.7%	32.7%	0.0%	9.8%	103
Clover Park	Hillside	29.9%	50.0%	-20.1%	54.4%	27.8%	5.8%	7.3%	9.1%	74.0%	1.8%	10.9%	56
Clover Park	Tyee	17.4%	43.4%	-25.9%	46.2%	19.3%	2.5%	8.6%	31.5%	74.3%	22.1%	19.2%	64
Concrete	Concrete	40.8%	57.7%	-16.8%	44.8%	4.0%	1.0%	1.0%	1.7%	58.7%	0.0%	10.9%	53
Edmonds	Cedar Way	40.7%	57.8%	-17.0%	45.6%	6.2%	1.8%	23.0%	20.9%	53.2%	13.5%	4.4%	57
Elma	Elma	31.9%	52.8%	-20.8%	51.1%	1.9%	2.7%	1.9%	10.9%	50.6%	5.2%	21.6%	123
Enumclaw	Westwood	42.0%	60.4%	-18.4%	66.1%	0.8%	1.0%	4.7%	13.8%	25.0%	8.2%	4.8%	55
Everett	Garfield	30.6%	50.6%	-20.0%	52.2%	5.5%	4.0%	4.7%	15.8%	62.3%	8.6%	17.5%	64
Evergreen (Clark)	Marrion	39.1%	56.6%	-17.5%	44.3%	5.1%	0.7%	4.4%	10.1%	39.2%	10.1%	15.2%	69
Highline	Beverly Park	24.7%	46.5%	-21.8%	47.4%	25.1%	0.0%	20.6%	29.5%	74.4%	23.1%	12.0%	63
Kent	East Hill	35.3%	53.2%	-17.9%	51.0%	15.0%	0.8%	22.8%	16.7%	55.0%	12.9%	13.9%	73
Kent	Jenkins Creek	30.3%	53.4%	-23.1%	44.2%	8.6%	0.0%	7.3%	9.3%	40.6%	19.9%	16.5%	53
Kent	Springbrook	26.4%	49.7%	-23.2%	55.7%	15.5%	0.9%	19.7%	10.0%	55.2%	15.9%	20.3%	65
Longview	Saint Helens	28.9%	47.4%	-18.5%	53.0%	2.4%	5.1%	3.0%	31.0%	84.0%	10.2%	10.2%	49
Marysville	Marshall	41.5%	61.4%	-20.0%	44.8%	0.0%	3.7%	8.7%	5.9%	26.5%	2.8%	16.8%	69
McCleary	McCleary	31.3%	60.5%	-29.1%	48.2%	2.0%	5.3%	0.0%	4.2%	36.9%	0.0%	10.4%	35
Monroe	Frank Wagner	32.2%	49.4%	-17.2%	50.3%	1.7%	0.7%	5.0%	44.2%	54.0%	28.5%	9.3%	63
Monroe	Monroe	32.5%	58.5%	-25.9%	50.9%	1.3%	0.0%	0.9%	18.7%	31.8%	11.8%	10.0%	48
Orting	Ptarmigan Ridge	35.3%	63.7%	-28.4%	50.6%	1.6%	1.3%	2.5%	6.2%	30.4%	1.8%	4.6%	145
Puyallup	Hilltop	43.2%	63.6%	-20.3%	50.6%	1.8%	2.6%	3.8%	6.6%	16.1%	0.0%	13.0%	34
Puyallup	Woodland	43.4%	63.1%	-19.8%	43.9%	8.9%	3.0%	5.4%	3.4%	18.8%	0.0%	14.8%	102
Quillayute Valley	Forks	29.8%	52.7%	-22.9%	52.9%	0.0%	13.9%	1.9%	21.0%	60.8%	10.9%	4.8%	83
Seattle	Emerson	18.7%	42.9%	-24.2%	46.7%	59.6%	1.2%	20.6%	11.3%	82.9%	23.4%	10.9%	38
South Kitsap	Burley Glenwood	34.5%	60.5%	-26.0%	52.7%	2.0%	4.2%	11.4%	3.7%	37.8%	0.6%	11.6%	73
South Kitsap	East Port Orchard	39.4%	58.1%	-18.7%	51.6%	6.0%	4.6%	6.3%	7.7%	52.6%	1.6%	6.7%	63
South Kitsap	Sidney Glen	34.9%	61.1%	-26.2%	55.3%	4.9%	1.3%	12.7%	4.1%	45.4%	1.3%	4.8%	83
Southside	Southside	29.8%	60.1%	-30.3%	48.6%	0.0%	1.2%	2.6%	0.0%	39.0%	0.0%	14.0%	39
Spokane	Holmes	25.9%	52.4%	-26.4%	36.5%	9.1%	6.6%	0.0%	0.0%	85.9%	1.3%	10.4%	39
Tacoma	Lyon	33.2%	50.6%	-17.4%	49.5%	20.6%	2.6%	9.6%	18.5%	69.3%	9.8%	9.6%	41

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