Using Micro-indicators to Examine the Volatility of Change in Education Indicators Among School Districts

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This paper is intended to promote the exchange of ideas among researchers and policy makers. The views expressed in it are part of ongoing research and analysis and do not necessarily reflect the position of the U.S. Department of Education.

Objective

Statistical indicators can provide valuable insights to policy makers on important developments in elementary and secondary schools and school districts. While state-level policy makers often focus on trends for individual districts, the national policy agenda has generally relied on more broadly aggregated measures, such as national or state summaries. These national aggregate data provide indispensable information, but do not provide statistics on the dynamics of local level patterns, such as those with respect to enrollment changes or high school graduation rates. National and state summaries typically provide no information on the range of school and school district experiences, which are known to vary widely. This paper uses micro-indicators to analyze individual school district changes in enrollment, pupil/teacher ratios and averaged freshman graduation rates (AFGR), from the Common Core of Data (CCD), and relates these local level findings to national patterns. The micro-indicators are analyzed through percentile distributions across all districts, with comparisons to national benchmarks. The variance in individual districts over time was computed to gain a better understanding of the dynamics of small district values. Also, regressions were computed for individual districts to look at the stability in patterns of changes over time. These analyses illuminate the extent to which graduation rates vary among districts within different localities and states, and also the extent to which changes over time in graduation rates, particularly among small districts, may be affected by statistical fluctuations. The micro-indicators also illustrate how district experiences with respect to graduation rates, enrollment trends, and pupil/teacher ratios differ from their state aggregates that are often presented in national studies (Snyder, Dillow, and Hoffman, 2009, Planty et al. 2008). This paper helps describe the extent to which districts reflect national and state patterns in education indicators and more generally, the utility of micro-indicator analyses.

Analytic Approach

The main analytic technique used in this paper includes micro-indicator analysis. This technique enables a comprehensive look at the dispersion of data for small entities over time. The micro-indicators are produced at the unit level of analysis, which are school districts in this case. These indicators are analyzed by methods that provide information on the range of unit level experiences at some particular level of aggregation, such as states or localities. In order to understand the range of these unit level experiences, the annual changes are computed at the 5^{th}, 10^{th}, 25^{th}, 50^{th}, 75^{th}, 90^{th}, and 95^{th} percentiles. The micro-indicator approach addresses the concern about the extent to which state-level aggregations mask important local level patterns, such as urban vs. suburban vs. rural distinctions. The micro-indicator analyses enable a systematic look at how AFGR and other typical education indicators for districts of different sizes fluctuate over time, and vary within states to gain a better understanding of the typical patterns of variance.

Three indicators were used to provide examples of the potential benefits and challenges that might be expected when working with indicators of varying levels of complexity. The most basic indicator was the enrollment change from one year to the next at the

district level. This indicator involved 2estimates of one variable from 2 adjacent years. The second indicator on the change in the pupil/teacher ratio from one year to another represented an increase in complexity, since the metric is based on 2 years of data and a constructed measure for each year using 2 different variables. The most complex measure explored was the AFGR, which relies on 4 variables (enrollment data from 3 consecutive grades across 3 years and high school graduates). The variables in the AFGR include a time frame of 5 years. Finally, the migration-adjusted version of the AFGR required another 4 enrollment variables in addition to the variables required for the base AFGR computation. In addition to presenting computations of the metrics, this paper examines the instability of the measures over time, and the extent to which instability might be related to the size of the districts.

Previous Research

There have been significant research studies dealing with the general problem of aggregate level data masking important differences among individuals or other reporting units. Many of the studies have appeared in the economic or business literature, such as Bartik's study of micro data on small businesses that examined the role of state characteristics in small business start-ups (Bartik 1989). Within the education research field, "Aggregation and the Estimated Effects of School Resources" (Hanushek, Rivkin, and Taylor 1996) discussed the role of data aggregation in previous findings of a significant positive relationship between school resources and student performance. They concluded that, "aggregate analyses drawing data from different states generally neglect potentially important financing, organizational, and regulatory features of states," and that "studies which contain more information about community characteristics and which use less aggregated data are likely to produce more reliable estimates of the true impact of school expenditure on attainment." In his Nobel Prize lecture, "Micro Data, Heterogeneity, and the Evaluation of Public Policy," Heckman described the contributions of microeconomics in accounting for the heterogeneity of individual behavior in economic theory (Heckman 2001). He also discussed the effect of this contribution on public policy as well as the general need for more synthesis of micro and macro analyses. He specifically noted, "that problems that appear to be unimportant when examining aggregate averages become central in analyzing micro data."

There has been a body of research using measures of dispersion in school district finance data to highlight differences within states, which are now being published in documents intended for general audiences (Murray, Evans, and Schwab, 1998; and Swanson 2008). The general purpose of such school finance research was to look at measures of dispersion of resources per student to investigate financial equity issues at the state level. In this context, the measures of dispersion generally looked at deviations from the state mean, since the analyses generally were driven around the policy goal of reducing the variance. In contrast, the analysis in this paper is structured to show the range of experiences with measures that would be expected to deviate from the mean. Many of the financial studies did not look at time series because the focus was on the current situation that might need to be addressed through legislation. However, one study (Hussar and

Sonnenberg, 2000) compared the various measures used in school finance and computed them over a range of years. This study found that many of the measures of dispersion were influenced by outliers in the data, and that outliers were encountered frequently in the CCD (finance) data. The federal range ratio (5^{th} to 95^{th} percentile, which is conceptually similar to some of the measures used in this paper) was found to be less or equally affected by outliers compared to other measures. The impact on the ratio was only noted at the state level when a relatively large district was an outlier in a specific state. In contrast, some of the other metrics, such as Atkinson's index, were substantially affected at the national level by very small districts that were extreme outliers. These districts would have no little or no impact on the analyses used in this paper because of their small size and the comparatively large number of districts with valid data.

Data and Methodology

In order to explore the utility of the micro-indicator methodology, three indicators were computed for the 1996-97 through 2006-07 period. The first indicator is the change in enrollment from fall of one year to the fall of the following year, which was computed as an index. Enrollment change is a key indicator for local policy makers because of the direct impact of enrollment on school budgets.

The change in the pupil/teacher ratio provided a second example of the application of the micro-indicators to typical school indicators. The indicator was computed to show the change in the pupil/teacher ratio from one year to the following year as measured by an index. This indicator also is relevant to local and state budget making. Teachers constitute the majority of school staff and instruction-related expenditures made up 61 percent of public school current expenditures in 2005-06 (Snyder, Dillow, and Hoffman 2009). Changes in the relative quantity of teachers compared to students can affect the expenditures per student within a district, and thus, the overall state and local school budgets.

In addition to these two relatively simple indicators, a further analysis was conducted using a more complex graduation rate metric (AFGR). The National Center for Education Statistics (NCES) published state-level information on averaged freshman graduation rates (Seastrom et al. 2006) and highlighted this information in an annual report to Congress (Planty et al. 2008). However, the reports intended for policy makers have been limited in some respects. The AFGR indicator included in the report to Congress was limited to a 4-year time frame and did not contain information on the range of school district variations in AFGR within states or by other characteristics. A technical report (Seastrom et al. 2006) included some time-series information on the AFGR, and the mean, standard deviation, minimum, 25^{th} percentile, median, 75^{th} percentile, and maximum values for school districts in the two states examined for each year. The general limitations and strengths of the national and state AFGR statistics and similar computations have been discussed in reports of the National Center for Education Statistics (Seastrom et al. 2006) and other organizations (Mishel and Roy 2006, Pinkus 2005, and Greene and Winters 2005). Also, an expert panel convened by NCES made a

number of recommendations on improving the quality of graduation rate computations and data collection efforts (NCES (NCES/NISS 2005). While there appears to be a general consensus that longitudinal methods (tracking individuals) offer the highest degree of accuracy and depth of data for research purposes, infrequent collections and lack of comparable state and local data pose significant limitations for their use as national policy indicators. The AFGR method has been found to be a reasonable approximation of the true graduation rate (Seastrom et al. 2006). However, there are alternative school district metrics that could be used and this paper will present one of these alternatives and refer to two others presented in earlier papers on this general topic (Snyder 2007).

Student migration was raised in the previous studies noted above as a limitation. Migration causes some distortions at the state level, but can introduce more obvious problems at the school district level, resulting in graduation rates that lack face validity. Immigration to the United States and state-to-state mobility are known to affect AFGR results, as well as the results of similar measures using aggregate data as proxies for true cohort longitudinal studies, because students in a given graduation cohort may not have been counted as enrolled in earlier years in that particular jurisdiction. For districts gaining population, students would have been counted in the enrollment base of another district, but as graduates in their current district, thus increasing that district's rate. For the districts losing population, they will have the students counted in their enrollment base, but not as graduates, thus lowering their graduation rate. Some attempts have been made to adjust for migration in state- and national-level computations using national population data, though substantial concerns have been raised about this methodology (Greene 2006). Other analyses have ignored migration altogether, assuming that the impact of these migration patterns at the state level is relatively small in most cases. However, the impact can be large and obvious at the school district level. Many districts, such as the fast-growing Orange County in Florida, had AFGR values that exceeded 100 percent in 2004-05. A point can be made that not many large districts suffer from this lack of face validity. Still, 775 districts (out of the 10,755 having data available for the period from 1994-95 through 2004-05) had rates exceeding 100 percent. Although a rate over 100 percent might identify a district as being affected by a problem resulting from its students' migration pattern or a data anomaly, other districts with lower values potentially may have more serious inaccuracies. A relatively small district with an actual or near 100 percent graduation rate might have an influx of one or two students that would push its rate to 102 percent (for example), and from an analytic standpoint, not result in a serious error. On the other hand a district with a substantial out-migration might have an actual 80 percent graduation rate, which was measured as a 70 percent rate because of the out-migration. Though the former case is an obvious out-of-range value, it is of marginal analytic interest, while the latter case would be a more substantive issue that would be difficult to identify since either value would fall into the normal range. Given that we know that a substantial number of districts (775) are affected by migration or data anomalies to the extent that they push over one logical boundary of the distribution (100 percent), it is reasonable to assume (given a normal distribution) that a large number of districts are pushed upwards to a lesser extent, and that there are a similar large number of districts, with artificially low values, being affected by the out-

migration. Some of the impacts would be large enough to identify as potentially problematic through various types of edit checks, while other substantively significant problems would be difficult to identify since they fell within the normal range (the range from the 25th and 75th percentiles was 68 to 88 percent in 2004-05, table 1). To address the impact of the migration patterns, the ratio of enrollment from one year to the next will be used to estimate migration flows for individual districts. These migration factor estimates will be used to adjust the AFGR base enrollment values.

One of the statistical issues that the AFGR attempts to address is the relatively high enrollment at the 9th grade level, compared to the number of students at the 8th and 10th grade levels (Seastrom et al. 2006). This is due to a number of factors, perhaps most importantly, relatively high ratios of student retention at the 9th grade level. Another factor that can affect the AFGR is the propensity for students to transfer from private to public schools between the 8th to 9th grades. Although this factor may be significant for some districts, the impact is relatively small nationally since the number of transfers (perhaps 20,000 to 40,000) affects the AFGR denominator by about 0.2 to 0.4 percentage points.[1] In comparison, the retention ratio measured for public schools at the 9th grade compared to the 8th grade is on the order of about +14.0 percent. The AFGR methodology compensates for this high retention at the 9th grade level by averaging the enrollment of the same cohort of students at the 8th and 10th grade levels. While this does help alleviate the problem, it also introduces additional variability into the equation by adding the effects of migration over a two-year period. To address the concern that the findings of this paper might be affected by these approximations, an alternative metric was analyzed in an earlier paper that computed rates for the 10th through 12th grades and did not include the data for 8th and 9th grades (Snyder 2007). This alternative 10th grade to graduation rate metric was found to provide essentially the same analytic results as the AFGR, so the findings were not replicated here.

Taken together, these indicators on change in enrollment, and change in pupil/teacher ratios, and change in graduation rates provide useful examples of how micro-indicators can improve our ability to interpret statistical data sets, and summarize information of relevance to policy makers.

Methodology and Data Sources

The primary data source for all the metrics presented in this paper was the Common Core of Data (CCD). Three components of the survey system were used. These included the "Public Elementary/Secondary School Universe Survey" and the CCD "Local Education Agency Survey" covering a time span from 1989-90 through 2006-07 to prepare the AFGR and other measures used in the paper. The "State Nonfiscal Survey of Public Elementary/Secondary Education" data for the years 1989-90 through 2006-07 were used to provide national comparisons to the aggregate LEA totals. These federal surveys gathered information about all school and school districts every year. Data were collected for a particular school year through survey instruments sent to state education agencies during the school year. Since the CCD is a universe collection, CCD data are not subject

to sampling errors. However, nonsampling errors could come from two sources: nonresponse and inaccurate reporting. Almost all of the states submit each of the CCD survey instruments (excluding the "Local Education Universe Survey Dropout and Completion Data File"), but submissions are sometimes incomplete. For example, all the districts in a particular state may be missing some entire portions of the survey for a given year.

The computation of the AFGR statistic is not conceptually difficult; it requires the division of the number of high school graduates for a given year by the average of the number of 8th graders from 5 years earlier, the number of 9th graders from 4 years earlier, and the number of 10th graders from 3 years earlier. However, the volume of data at the school and district level and potential for various combinations of missing data present some challenges. The data generally are reasonably complete, but often a small number of states, typically 1 or 2, are missing school district data for enrollment or graduates for a particular year. Also, individual districts may be missing data for the enrollment for a specific year, or several years, or missing the high school graduate component necessary to complete the analysis. One of the key components of the analysis in this paper is tracking changes in individual districts over time. In order to compute reasonable approximations of the variance in graduation measures at the district level, it was necessary to have data for each of the 11 years in the analysis.

Dealing with Missing Data

Several strategies were used to impute data for districts with some missing data where reasonable approximations could be made. For districts where total enrollment or total teachers was missing for a particular year, but values were available for the two adjancent years, the missing value was interpolated from the actual data. For districts where the AFGR (grade by grade) enrollment data were missing for specific years, the enrollment by grade denominators were estimated based on an algorithm using existing enrollment data for at least one of the grades in the relevant cohort. For districts with AFGR enrollments over 5 that were missing high school graduate data for one year, the high school graduates were estimated based on the 12th grade to graduate ratio from the prior school year, applied to the 12th grade enrollment of the current year. While these imputations do improve the coverage of the United States, there is the possibility that they would affect the variance observed among school districts over time, which was a primary focus of the paper. In order to document the possible bias of the imputations on the variance that is discussed later in the paper, the AFGR analyses also were conducted without the imputations. The imputations were found to reduce the variance observed in AFGR by 0.1 to 0 .2 percentage points at the median. The exception among the 12 types of localities was large cities, where the imputations caused the variance to increase. This was because some large districts dropped out of the analysis without the imputations due to missing data. This had more an impact on large cities because there are many fewer districts in that category than in most of the other categories. In rural remote districts, the imputations caused the observed variance to drop by 0.4 percentage points. Without the imputations, the relatively large variances noted below would be even larger.

Annual school-level enrollment data for 1989-90 through 2004-05 were aggregated to the school district level. The high school diploma counts from the local education agencies, along with the urbanicity code for 2004-05, was merged with the school district enrollment totals to produce a composite database.

In general the data files were more complete with respect to enrollment and teacher counts than with high school graduates. Also, there were no conceptual problems with the elementary only and secondary only school districts. Unlike the AFGR based indicators, the enrollment change index and pupil/teacher ratio index included the elementary school districts. In general, the enrollment data for the school districts were nearly complete, with 99 percent or more of the districts reporting enrollment data. The exception was 2006, when 98 percent of the districts reported enrollment data. For each year, the total enrollment of all the school districts in the analysis was within 0.3 percent of the U.S. total reported through the CCD state nonfiscal survey (Snyder, Dillow, and Hoffman, 2009). A problem of similar magnitude was the number of school districts that changed boundaries (which may affect changes in enrollment counts in particular). In 2006, about 0.9 percent of districts changed school boundaries from the prior school year. Since this analysis is focused on changes observed at the 5th, 10th, 25th, 50th, 75th, 90th, and 95th percentiles, anomalies affecting only 1 or 2 percent of the districts would have limited impact on the indicators.

The number of districts that were missing data on teachers was larger than the number missing enrollment data. Since the pupil/teacher ratio indicator computed for the analysis required both enrollment and teacher data, a district missing data on enrollment was treated as missing on teacher data as well (such cases were excluded from the relevant pupil/teacher ratio computation). There were cases when a district legitimately reported teacher data, but no enrollment data, but there was no way to handle this situation in the analysis, so they were treated as missing. These situations could arise where an area vocational/technical school was treated as a separate district, but hosted no students of its own. All of its students had “home” schools in other districts. This situation would affect the average pupil/teacher ratio to a relatively small extent, since only those secondary school students in vocational programs would be missing data for a proportion of their teachers. However, since the metric was the change in the pupil/teacher ratio from year to year, this slight systematic upward bias for a small number of districts in the pupil/teacher ratio average would typically not affect the change in the index unless there was a change in district structure. Overall, the percentage of districts reporting teacher data ranged from 95 percent to 99 percent through the period. The teacher data covered in the pupil/teacher ratio indicators was generally about 97 percent of the United States total for most years (Snyder, Dillow, and Hoffman, 2009). The lowest year was 91 percent in 1997 and the highest was 98 percent in 1999, 2000, 2001, 2002, 2003, and 2006.

Overall, data for 20,481 local education agencies were compiled from 1989-90 through 2005-06 CCD files (the 2005-06 School District Universe contains the 2004-05 high school graduate counts) for the AFGR measures. Of these districts, 13,200 had at least some graduation or high school enrollment data. The other districts were administrative

units that did not serve students directly or had only ungraded or elementary grade students (with no graduates), so were not be included in the AFGR analysis. Further limiting the data analysis to only districts with AFGR data for each of the 11 years (actual or with limited imputations noted above) reduced the total to 10,755. Most of the districts excluded for this reason were small districts (such as individual charter schools reported as individual districts in recent years). As a result, 19 percent of the districts with at least some AFGR-related data (2,445 out of 13,200) were excluded from the analysis; however, they accounted for a relatively small share of the graduates, about 1 percent in 1994-95 and 2 percent in 2004-05. Further refinement to track the district changes over time and fix identification, coding, and other problems over this length of time could have improved the 98 percent coverage somewhat, but the level of effort required was beyond what could be accomplished for this exploratory analysis.

Dealing with Outliers

Aside from missing data, another data problem faced by the study was the potential for poor quality data or misleading data submitted for some school districts. While the data for most districts were reliable, outliers could affect the aggregation of the micro-indicators. This problem was minimized through the methodological approach of focusing aggregated indicators on medians, quartiles, and deciles, rather than on means or dispersion indexes, which can be sensitive to some types of outliers (Hussar and Sonnenberg, 2000). The study uses a micro-indicator system that tracks changes over time, which is relatively insensitive to a small number of outliers with potentially large errors. Several strategies were used to avoid missing or undefined values in the computations. However, some consideration was made for the possibility of 0 enrollments in specific grades or for counts of graduates in very small districts. The computation of the enrollment change and pupil/teacher ratio change indicators required that districts have an overall enrollment above 0 for both years in the specific comparison.

Adjusting AFGR for Student Migration

One of the concerns identified by the analyses conducted for this paper was the impact of student migration on AFGR values. Some 775 districts were found to have AFGR rates exceeding 100 percent in 2004-05. One potential cause of these high values could be in-migration. Also, many of these districts were tiny districts with anomalies that translated into out-of-range values because of the small number of students and graduates involved (for example, one student might represent 5 or 10 percent of the graduating class). However, some of the out-of-range districts were large districts known to have substantial in-migration. Clearly, an overestimate caused by in-migration in one district would have to be balanced by artificially low values in other areas (except for in-migration resulting from immigration). Several strategies were attempted to correct for this problem. Both the unadjusted and adjusted rates are presented in the Results section.

One approach to adjust the graduation rates for migration would be to use the change in enrollments themselves to adjust the base data. One experiment adjusted the base cohorts by enrollment changes for single grades. For example, the change in enrollment from fall 2002 10th grade to fall 2003 10th grade could be used as a factor to adjust the cohort passing through that grade during the relevant academic year. This assumes that the changes in enrollment from year to year were due to incoming students rather than changes in retention rate practices or dropout rates. Retention rates generally have been stable for many years, but this ratio was found to have excessive impact on the measures. It introduced about a dozen new variables into each measure, which multiplied the number of cases where one data anomaly affected the overall metric. The changes in retention rates suggested by shifts in national AFGR figures were smaller than changes observed at the local level. In fact, local level volatility was one of the key findings of this paper. As a result of the inconsistent properties of the more specific strategies, an alternative enrollment adjustment strategy was pursued, which gave more stable in/out-migration measures. Instead of trying to achieve precision using specific grades associated with a specific cohort through the retention metric period, the total enrollment change (excluding prekindergarten and kindergarten because of known increases in their participation rates) for the district was used to adjust the retention rate. This method mitigated the impact of anomalies of enrollment data for specific grades (such as missing enrollment data for a given grade in a particular year), which could affect the entire metric for three or more years.

For the AFGR adjustments, three periods (years) of change during the AFGR period were used to adjust the data, under the assumption that some in/out migration was already accounted for in the AFGR metric. Also, there is a tendency for families with high school-age children to be less mobile than families with younger children. The lower mobility rate for teens and pre-teens is confirmed by Census Bureau findings for mobility from 2002 to 2003 (12 percent of 15- to 17-year-olds and 13 percent of 10- to 14-year-olds moved compared to 16 percent of 5- to 9-year-olds). Most of these moves are within the county, so a number of the moves would not involve new school districts. The composite AFGR enrollment base (an average of 8th, 9th, and 10th graders for consecutive years) for the 9th grade (from 2000-01 through 2002-03) is adjusted by the percent change in total district enrollment over a 3-year time frame. So, if the total enrollment for a district increased by 1 percent for 2000-01 to 2001-02, by 1 percent from 2001-02 to 2002-03, and by 1 percent between 2002-03, then the AFGR enrollment base for 2000-01 would be increased by approximately 3 percent before computing the AFGR. Similarly, a district with declining enrollments would have its base enrollment adjusted downwards. Further research is needed to optimize the total enrollment change proxy for a migration factor.[2]

Locale Definitions

The classification of urban, suburban, town and rural districts presented in this paper was based on a system developed by the Census Bureau in conjunction with the National Center for Education Statistics. This urban-centric coding system uses population size

and distance from an urbanized area to determine the locale. It includes four basic categories (city, suburban, town, rural), each of which is subdivided into three categories by either size (in the case of urban and suburban locales) or distance from an urbanized area (for towns and rural locales). Some of the tables in this paper were limited to the four basic categories to reduce the amount of detail. The listing below provides a description of each of the 3 subcategories that are included in the 4 basic categories. The locale coding was based on the location (generally longitude and latitude) of individual schools. The classification of the district was based on the plurality of students in the district's component schools.[2]

The following list provides a definition for the four major urbanicity categories analyzed in this paper, with descriptions of the subcategories:

City

City, large - Located inside an urbanized area and inside a principal city with a population of at least 250,000.

City, mid-size - Located inside an urbanized area and inside a principal city with a population of at least 100,000, but less than 250,000.

City, small - Located inside an urbanized area and inside a principal city with a population less than 100,000.

Suburban

Suburban, large - Located inside an urbanized area and outside a principal city with a population of 250,000 or more.

Suburban, mid-size - Located inside an urbanized area and outside a principal city with a population of at least 100,000, but less than 250,000.

Suburban, small - Located inside an urbanized area and outside a principal city with a population less than 100,000.

Town

Town, fringe - Located inside an urban cluster that is 10 miles or less from an urbanized area.

Town, distant - Located inside an urban cluster that is more than 10, but less than or equal to 35 miles from an urbanized area.

Town, remote - Located inside an urban cluster that is more than 35 miles from an urbanized area.

Rural

Rural, fringe - Located outside any urbanized area or urban cluster and is 5 miles or less from an urbanized area or 2 miles or less from an urban cluster.

Rural, distant - Located outside any urbanized area or urban cluster and is more than 5 miles and less than or equal to 25 miles from an urbanized area, or more than 2 miles and less than or equal to 10 miles from an urban cluster.

Rural, remote - Located outside any urbanized area or urban cluster and more than 25 miles from an urbanized area or more than 10 miles from an urban cluster.

NOTE: Urbanized areas are densely settled areas containing at least 50,000 people. Urban clusters are densely settled areas with populations of 2,500 to 49,999.

To examine the stability of the measures at the district level, the standard deviation was computed for each district over the 11-year period from 1995/96 to 2005/06 for each of the metrics. Also, time-series regressions for each district were prepared for this period. These results served to further refine a working hypothesis that smaller districts are less likely to have stable patterns of change than larger districts, and that there are important variations in district patterns of AFGR and related measures over time. The fact that smaller districts might tend to have more volatile AFGR and other statistics was an important consideration in an analysis of urban, suburban, town and rural data, where the rural districts are known to be, on average, smaller than urban or suburban districts.

Results

Change in School Enrollment

The first indicator tracks the annual change in district enrollment expressed as an index. As an example, a value of 100.0 would mean that a district had a change of less than .05 percent compared to the prior year. A value of 101.5 would mean that a district had an increase of 1.5 percent, while a value of 98.5 would mean that a district had a 1.5 percent decline in enrollment. Total public school enrollment rose 8 percent over the 1996 to 2006 period (Snyder, Dillow, and Hoffman, 2009). This increase was reflected in observations at the median for the enrollment change index. Between 1996 and 2006, the average index annual value was 100.7 at the median (table 1). The highest value was 101.7 in 1996 and the lowest value was 100.0 in 2006. However, even though enrollment was increasing in aggregate throughout the period and districts at the median showed increases for nearly every year, districts at the 25th or lower percentiles of enrollment change were having enrollment decreases. With one exception (100.1 in 1996), all values at the 25th and lower percentiles for all years from 1996 to 2006, were below 100.0. The average index figures over the 1996 to 2006 period were 95.9 at the 5th percentile, 97.4 at the 10th percentile, and 99.1 at the 25th percentile. At the 75th percentile, the average index of the period was 102.5. All of years had an index value at the 75th percentile between 102.0 and 102.7, except for 103.4 in 1996 and 101.9 in 2006. Also, for each of the years between 1996 and 2006 the values were generally within 1 percentage point of the average 90th percentile (104.6) and at the 95th percentile (106.6). The exception at both percentiles was in 1996, where the 90th percentile was 106.2 and the 95th percentile was 111.4.

The districts level were arrayed by the type of locality based on the structure noted above in the Data and Methodology section. There were systematic differences in the average index values among the various locality types over the 1996 through 2006 period (table 1). The areas with the largest values for the enrollment index at the median included large suburbs (101.5), midsize suburbs (101.3), small suburbs (101.2) and fringe rural (101.2). The five areas with the lowest enrollment change averages at the median included distant rural (100.2), large cities (100.1), distant towns (99.9), remote towns (99.3), and remote rural (98.9). In contrast to the general pattern of enrollment increases for this time

period, districts in distant and remote towns, and remote rural areas typically were having enrollment declines.

When looking at the lower end of the percentiles of enrollment change, the remote rural areas had the lowest average values (91.9 at the 5th percentile and 93.9 at the 10th percentile) over the 1996 through 2006 period. However, at the 90th percentile, the remote rural areas had values that were above some of the other locales, and at the 95th percentile, the remote rural area value was equal to the national average (106.6). The range between the 25th and 75th percentiles (4.6 points) was higher than any of the other locales. The rural fringe had the largest increases at the 75th, 90th, and 95th percentiles. For example, at the 95th percentile the average index over the 1996 through 2006 period for the rural fringe was 109.3, which was higher than the average of 106.6, and the 2nd highest locality, large suburban of 107.1). The growth in rural fringe is consistent with the increasing population of areas that are sometimes referred to "exurbs".

The micro-indicators can be used to look at the ranges of enrollment changes occurring within individual states (table 2). For 2006, the national median index for change in school district enrollment was 100.0, indicating a change of less than .05 percent. The range in values across the states reflect this central tendency with some dispersion, with 25 states and D.C. having a decline and 25 states having an increase. The highest values were in Nevada and Oregon (both 103.2), while the lowest value was in Kentucky (94.6). However, there were districts in each state that were having enrollment increases and enrollment declines. Only one state (Nevada at the 10th percentile) showed a value over 100.0 for either the 5th or 10th percentiles. Similarly, no state had enrollment declines at the 90th or 95th percentiles. Thus, across almost all states in 2006, there were significant numbers (typically at least 25 percent) of districts having enrollment declines or having enrollment increases that contrasted with the predominant state pattern of increase or decrease.

The state data for 1996 show similar patterns of ranges within states, but with all values being generally higher reflecting the national index at the median (101.7) being higher than the median in 2006 (100.0) (table 3). For example, at the 75th percentile, the 2006 value (101.9) was lower than the 1996 value (103.4), and at the 25th percentile the 2006 value (98.3) also was lower than the 1996 value (100.1). Despite the more widespread increases in 1996 than in 2006, there were still a majority of states in 1996 that had districts with decreases in enrollment at the 5th and 10th percentiles. At the 5th percentile, 46 reporting states had decreases and 2 had increases, and at the 10th percentile, 43 reporting states had decreases and 5 had increases. The national average range between the 25th and 75th percentiles fluctuated between 1996 and 2006 from 2.8 to 3.9 index points, suggesting no consistent pattern of change between those points of the distribution.

Linear time-series regressions of the annual enrollment changes were computed for each of the districts for which data were available for all years from 1996 through 2006 (13,717 districts, including about 98 percent of the enrollment). The enrollment regressions showed that the majority of districts did not have steady patterns of increases

or decreases throughout the period. About 11 percent of the districts had a pattern of increasing enrollment, while 4 percent had a consistent pattern of decreasing enrollment. The balance of districts had fluctuations or inflection points, without a slope that was significant at the .95 significance level. In order to show the range of variability for the individual districts over the 1996 through 2006 period, the standard deviation was computed. The range that is defined as the mean plus or minus one standard deviation includes approximately 2/3 of the observations for the series. The standard deviation of the change in enrollment shows a pattern with smaller districts showing more volatility than larger districts (table 4). At the median, the standard deviation was 6.5 for districts with enrollment under 300 compared to 4.2 for those with enrollment from 300 to 599, 3.2 for those with enrollment from 600 to 999, 2.4 for those with enrollment from 1,000 to 2,400, and 1.6 for those with enrollment of 2,500 or more. Since enrollment size was related to school district location as noted above, districts in rural remote areas, which tend to be smaller than districts in other locales had a standard deviation at the median (3.2) that was higher than any of the other locales.

Change in Pupil/Teacher Ratios

The second indicator tracks the annual change in the district pupil/teacher ratio expressed as an index. As an example, a value of 100.0 would mean that a district had a change of less than .05 percent in the index compared to the prior year. The public pupil/teacher ratio declined from 17.1 to 15.5 between 1996 and 2006, a decrease of 1.6 points or 9.4 percent (Snyder, Dillow, and Hoffman, 2009). This decrease was reflected in observations at the median for the pupil/teacher ratio change index. Between 1996 and 2006, the average index value was 99.1 at the median (table 5). The highest value was 100.6 in 2003 and the lowest value was 98.0 in 1998. However, even though the pupil/teacher ratio was decreasing in aggregate throughout the period and districts at the median showed decreases for nearly every year, districts at the 75th and higher percentiles of change in the pupil/teacher ratio were having increases in the ratio. The average index figures over the 1996 to 2006 period were 90.2 at the 5th percentile, 93.2 at the 10th percentile, and 96.6 at the 25th percentile. In contrast, at the 75th percentile, the average index of the period was 101.5, indicating that at least 25 percent of the school districts were having increase in the pupil/teacher ratio in a given year. All of years had an index value between 100.0 and 102.0 at the 75th percentile, except for 102.3 in 2002 and 103.4 in 2003.

The range between the median change in pupil/teacher ratio among the various locale types was narrower then the range for the median change in enrollment. The average over the 1996 to 2006 period varied from 98.9 in remote rural areas and remote towns to 99.3 in small suburban areas, a range of about 0.4 compared to a range of 2.6 among the localities for the enrollment change index. Similar to the enrollment change index, the remote rural area had the largest average range between the 25th and 75th percentiles for the pupil/teacher change index. The index for the pupil/teacher ratio change in the remote rural areas was 7.8 points compared to the average of 4.8 points, and the remote rural

areas had a 25th to 75th percentile range of 4.6 for the enrollment measure compared to the overall average of 3.4.

The state-level data for the pupil/teacher ratio change index show a pattern that has been observed with the other metrics (table 6). All but 6 of the reporting states (49) had a decrease at the 25th percentile and 6 had an increase at the 75th percentile. A sizeable percentage of the states (28 out of 49 states reporting appropriate data) had at least 25 percent of the districts displaying a index that was moving in the opposite direction of the state average (either an increase when the state average was down, or visa versa).

Regression lines on the change in the pupil/teacher ratios also were computed for the districts for which data were available for all years from 1996 through 2006 (13,463 districts, including about 95 percent of the enrollment). Relatively few of the regressions were significant, with about 1 percent of the district having a significant increase and 5 percent having a significant decrease. Some 95 percent of districts did not have a significant pattern of change. The standard deviation of the change in pupil/teacher ratio showed the same pattern that was observed with the enrollment index metrics, with smaller districts showing more volatility than larger districts (table 8). At the median, the standard deviation was 9.8 for districts with enrollment under 300 compared to 7.3 for those with enrollment from 300 to 599, 6.0 for those with enrollment from 600 to 999, 4.9 for those with enrollment from 1,000 to 2,400, and 3.7 for those with enrollment of 2,500 or more. Since enrollment size was related to school district location as noted above, districts in rural remote areas, which tend to be smaller than districts in other locales had a standard deviation at the median (6.3) that was higher than any of the other locales.

Change in Averaged Freshman Graduation Rate (AFGR)

The third and fourth indicators used in this paper are the AFGR and a derivative version of the AFGR that includes an exploratory adjustment for student migration. The national AFGR statistics computed from the school district graduation rate data set closely tracked the AFGR results computed from state aggregate data reported by state agencies. In 1994-95, the AFGR from the state-reported data was 71.8 percent (NCES 2007b), which compares closely to the 71.7 mean percent value computed through the school district data. The AFGR average increased from 71.8 percent in 1994-95 to 74.7 in 2004-05, an increase of 2.9 percentage points. In 2004-05, the AFGR based on state summary reports ranged from 62 percent or less in Georgia, South Carolina, and Nevada to 85 percent or more in Nebraska, Wisconsin, Iowa, Vermont, North Dakota, Minnesota, and New Jersey (Sable and Garofano, 2007c). A large range in AFGR values also has been observed in previous studies of school district data (Snyder 2007) and the state-level 50th percentiles (medians) based on the school district reports in this study also indicated wide ranges among the states (table 9). The states with the lowest medians were Nevada (54 percent), New Mexico (61 percent), South Carolina (62 percent) and Georgia (63 percent). The states with the highest medians included Nebraska (92 percent), New Jersey (92 percent), and Wisconsin (93 percent). However, these median values do not provide information

about the range in AFGR figures within states. Note that the District of Columbia and Hawaii were included in the overall measures even though they contain only one reporting jurisdiction. Since they constitute a single unit in this analysis, they effectively do not have dispersion at the state/jurisdiction level. They were included in the overall analyses to better replicate national totals.

The micro-indicators permit a more detailed look at how districts vary in AFGR from the means typically reported at the national and state levels (table 9). In 2004-05, districts at the median (graduate weighted) had a graduation rate of 79 percent, which was slightly higher than the mean value of 75 percent (Sable and Garofano, 2007). This was due to the nature of the distribution with some large districts with low graduation rates. For example, New York City, with an AFGR of 46 percent, appears at the 5th, 10th, and 25th percentiles for New York state because of the extremely large size of the district. The range in AFGR values was relatively wide, even at the national aggregate level. The band covering half the districts (25th to 75th percentiles) ranged from 68 percent to 88 percent. At the 10th percentile, the AFGR was 57 percent. In contrast, at the 90th percentile districts, 95 percent of students graduated.

The wide national range of district AFGR values was reflected among the states, and even states with high median values generally had significant numbers of districts with low AFGR values. Most of the states (38) had values below the national median at their 25th percentiles. Eight states had values below the national median at their 90th percentiles. Most states had a range of at least 10 percentage points between their 25th and 75th percentiles of AFGR. Excluding Hawaii and District of Columbia which had only one district, the states with relatively narrow bands between the 25th and 75th percentiles included: Montana (9 percentage points), Wyoming (9 percentage points), North Dakota (8 percentage points), South Dakota (8 percentage points), Idaho (7 percentage points), West Virginia (6 percentage points), Alaska (6 percentage points), and Nevada (1 percentage point [Note that the Clark County, Las Vegas, school district has more than half the students in the state]). The other 42 states had ranges of more than 9 percentage points, including California, Rhode Island, Massachusetts, Illinois, and New York with ranges of 20 percentage points or more.

Comparing the national 2004-05 AFGR distributions from the school district data with the 1994-95 data revealed increases at each percentile (tables 9 and 10). These patterns are consistent with the general increase in the AFGR averages reported through state-level aggregates. The school district increases ranged from increases of less than 2 percent at the 10th, 90th and 95th percentiles to increases of 3 percent or more at the 5th, 25th, and 50th percentiles. There were increases across most of the states, but many states did not follow the national patterns at the various percentiles. Thirty-eight states had increases at the median, 32 states had increases at the 25th percentile, and 34 states had increases at the 75th percentile. Fewer states had increases at the 10th percentile (30) or 90th percentile (27). Half (25) of the states had a decrease in the 25th to 75th percentile range. At all of the selected percentile ranges, at least one-third of the states had decreases in graduation rates in contrast to the national pattern of increases. Overall, 16 states had increases at each selected point along the distribution, similar to the national

percentiles, but 6 states had decreases in AFGR at each of the selected percentiles. The other half of the states had decreases at some of the percentiles and increases at others. These data suggest that while there have been national increases in graduation rates at all points along the distribution of AFGR percentiles, the increases have not been consistent for many of the states and their districts.

At the upper end of the distribution, some districts were graduating virtually all of their students. Values of over 100 percent were computed for districts in 5 states at the 90th percentile in 2004-05, and for 13 states at the 95th percentile. These large values may be due to the reporting anomalies for individual districts or in-migration. For districts already close to or at 100 percent as many small districts are, [3] a relatively small anomaly can push their values over 100 percent.

The school district level data enable an analysis of AFGR results by district characteristics, such as locality type at the state level. A computation of the AFGR by type of locality revealed substantial differences both in terms of averages for 2004-05, and in changes from 1994-95 to 2004-05 (table 11). Cities generally had lower AFGR values than other types of districts. In 2004-05, the AFGR value for cities was 69 percent compared to 83 percent for suburban areas, 80 percent for towns, and 81 percent for rural areas. Between 1994-95 and 2004-05, cities and suburbs had a larger increase in median AFGR (4 percentage points), than towns or rural areas (2 percentage points). The majority of states (33 or 34) experienced increases in the AFGR figures for cities, suburban areas, and towns; however, only about half (26) of the states had increases among rural areas.

Adjusting AFGR for Migration

One limitation with the AFGR and similar proxies for cohort methods is that the graduation rates can be affected by migration patterns. A significant net migration in the high school grades will result in a bias upwards for districts with a net in-migration and a bias downwards for districts with net out-migration. Adjusting the enrollment bases for the cohort graduation methods is one approach for making an adjustment for net migration. Experiments with these types of adjustments are presented in tables 12 through 14 for the AFGR. In general, the enrollment adjustment for migration decreases the national figures by 1 to 2 percentage points in each year. This is to be expected since the United States had net immigration during this time period. A majority of states (33) had lower AFGR values for 2004-05, after the adjustment for in-migration (tables 9 and 12). Fourteen states had migration-adjusted AFGR values that were 2 or more percentage points lower than their unadjusted figures, and 2 states, Nevada, and New Jersey, had figures that were 5 or more percentage points lower. On the other hand, some states had higher values after adjusting for migration. Higher values would result for states that had a net loss of students in districts for which AFGR data could be computed. Eight jurisdictions, District of Columbia, Maine, New Mexico, New York, North Dakota, Rhode Island, South Dakota, and Wyoming had migration-adjusted values of AFGR that were more than 2 points higher than their unadjusted AFGR figures.

Although the overall values for the migration-adjusted AFGR figures were lower than the comparable unadjusted figures, a comparison between 1994-95 and 2004-05 suggested larger increases in migration-adjusted graduation rates than for the non-adjusted figures (tables 9, 10, 12, and 13). The increase between 1994-95 and 2004-05 for the median migration-adjusted AFGR statistic was 5 percentage points compared to 3 percentage points for the standard AFGR statistic. These results suggest some overall impact on the AFGR statistics due to immigration of students. As will be described below, the migration-adjusted figures were more stable in exhibiting significant graduation patterns, than the unadjusted figures.

At the national level, the migration-adjusted AFGR figures showed more consistent increases among districts in different locales than the unadjusted AFGR figures. The differences in the increases for the standard AFGR and migration-adjusted AFGR values were particularly notable among towns and rural areas. For towns, the AFGR increase at the median between 1994-95 and 2004-05 was 2.2 percentage points, compared to 5.0 percentage points for the migration-adjusted AFGR (tables 11 and 14). For rural areas, the AFGR increase was 1.5 percentage points, compared to 4.3 percentage points for the migration-adjusted AFGR. In contrast, the differences in the increase at the median between 1994-95 and 2004-05 for the AFGR and migration-adjusted AFGR figures were relatively small for cities (3.7 compared to 4.8 percentage points) and suburbs (3.6 and 4.4 percentage points). Also, a larger number of states showed increases using the migration-adjusted figures, (46 compared to 38), and there were more consistent state increases for rural areas. Using the migration-adjusted values, 43 states had increases in rural areas compared to 42 states having increases for towns, 37 states having increases for suburbs, and 38 states having increases for cities. In aggregate, it appears the migration adjustments affected districts in the appropriate states by adjusting them in the correct direction by adjusting upwards in rural and town areas that were decreasing (towns) or growing at a slower rate than the overall population (rural areas); however, specification of the migration adjustment probably needs additional refinement. During the fall 1994 to fall 2004 period, enrollment (as reflected in the district data used for this analysis) increased by 9 percent overall, compared to an increase of 4 percent in rural areas and a decrease of 2 percent in towns.

Changes in AFGR from 1994-95 to 2004-05

Overall, the AFGR and the migration-adjusted derivation suggested a pattern of higher values in 2004-05 compared to 1994-95. Both of the metrics showed a consistent pattern of increases in graduation rates at all the selected percentiles along the distributions of graduation rates (5, 10, 25, 50, 75, 90, and 95). Even though there were widespread increases at many points of the distribution for all four metrics, it does not necessarily mean that all individual districts systematically improved their graduation rates. Another perspective, which was borne out by the data, was that there were districts moving up and down the scale with a majority moving up.

Two investigations into the district level indicators were made to confirm this hypothesis. The first was computing the standard deviation for the AFGR statistic for each of the districts over the 1993-94 to 2004-05 period. The second analysis was to compute time series regression lines for the AFGR values for each district. The standard deviation analysis showed higher values than might be expected. Overall, the standard deviation for the AFGR for the median district was 4 percentage points, which might be reasonable in consideration of a general increase of several percentage points over this period (table 15). So, using a 95 percent confidence interval, one might expect district AFGR values to fall within a range of plus or minus 9 percentage points over the 1994-95 through 2004-05 time period. However, there was a notable tendency for small districts, which are disproportionately located in rural areas, to have substantially larger standard deviations. For example, districts in rural, distant (6 percent) and rural, remote (8 percent) areas had relatively large standard deviations (table 17). Relatively volatile data might be expected from a statistical perspective given the small numbers of graduates and enrollees in these small districts. As an example in a district with under 300 students, if 20 out of 25 graduated, the graduation rate would be 80 percent. If only 19 of the 25 students graduated, the rate would be 76 percent, 4 percentage points lower. With such small numbers it is easy to visualize how statistics such as the AFGR with weighted average grade data, or other measures based on summary statistics, including the migration-adjusted figure used in this study could be substantially affected by small anomalies. These anomalies may result in values over 100 percent for these districts, which can be observed at the upper percentiles in the tables 9, 10, 13, and 14. It should be emphasized that potentially larger numbers of other districts with problematic data would elude such easy detection.

The standard deviations of AFGR and other types of graduation rates were directly related to district enrollment size (table 17). The standard deviation at the median for AFGR was 12 points for districts under 300 students, 9 points for districts with 300 to 599 students, 7 points for districts from 600 to 999 students, 6 points for districts with 1,000 to 2,499 students, and 4 points for districts with 2,500 or more students. Since the rural districts tended to be smaller than other types of districts, their volatility was larger as well. This national tendency for higher standard deviations for AFGR values in small districts was reflected in the state patterns. Nine out of 10 of the states with the highest proportions of students in districts with less than 300 students had overall median standard deviations in AFGR higher than the national average (table 18). The standard deviations among the states ranged from 3 or fewer percentage points in Maryland (2.0), Hawaii (2.5), Virginia (2.9), and South Carolina (3.0) to 6 or more percentage points in Arkansas (6.0), Vermont (6.6), South Dakota (6.7), District of Columbia (7.1), Arizona (7.3), and Tennessee (8.9). Note that Hawaii reports no separate school districts, and that Maryland, Virginia, and South Carolina all have county sized school districts. Although the District of Columbia reports as a single unit, its data have been characterized by relatively large year-to-year fluctuations.

Of course, these are only indications of the volatility for districts at the median. Half the districts had more volatile data. At this preliminary stage of the investigation, it is difficult to ascertain what reasonable bounds might be for graduation rate variation over

time. However, a 95 percent confidence interval of AFGR from 20 to 100 percent (60 percent AFGR, plus or minus 2 standard deviations of 20 points) exceeds a reasonable range for valid data, except perhaps in the very smallest districts with only a few graduates. At the 95th percentile, there were many combinations of size and district type that had values over 20 percent, which most likely resulted from some type of severe data problem. Among all sizes of districts, three of the states had standard deviations over 20 percent for the 95th percentile, and two states had values at or approaching this level at the 90th percentile (Arizona, 17.3 and Tennessee, 20.0). Overall, there were 475 districts with standard deviations of 20 points or more, which was about 4 percent of the total number of districts in this analysis. More research is necessary to determine whether the fluctuations resulting in the relatively high standard deviations for smaller districts in general, and some states in particular, are driven more by smaller random fluctuations from year to year, or by larger spikes on a more infrequent basis, possibly resulting from data errors.

Although there were large numbers of districts with volatile movements in graduation rates, there also were districts with consistent linear patterns of change. The patterns of linear change among school districts were investigated by producing time series regression lines for each of the 10,775 districts. As might be expected, given the relatively large standard deviations noted above, most of the regressions did not show consistent patterns throughout the period from1994-95 through 2004-05. However, the results did confirm that many districts did not have the experiences suggested by the national increases in AFGR figures during this period. In aggregate, about three-quarters (7,919) districts did not have a significant pattern of change as indicated by a regression slope of AFGR related to time with a t-statistic of less than 1.96. There were a number of districts with a positive significant slope, indicating an increasing graduation rate (1,690); however, there were also a substantial number of districts (1,146) with a significant negative slope in AFGR. Even though the migration-adjusted AFGR data generally showed larger standard deviations compared to the standard AFGR figures, the school district regressions showed more districts with significant slopes and many more of them were positive. About 5 percent of the districts had decreasing patterns of migration-adjusted AFGR graduation rates compared to 11 percent of districts when using the standard AFGR computations. Also, 30 percent of the districts showed increases in migration-adjusted AFGR compared to 16 percent of the districts when using the standard AFGR computations. Correspondingly fewer districts had non-significant results.

Summary

This paper's exploration of micro-indicators changes in enrollments, changes in pupil/teacher ratios, and changes in graduation rates helps to document analytical possibilities and data limitations involved in indicators at the school district level. The micro-indicator methodology of computing indicators at the school district level and presenting them at the national level shows a range of district experiences that can contribute to our ability to produce information useful to policy makers. This paper

provided reference points for enrollment rates, pupil/teacher ratios, and graduation rates for city, suburban, town and rural districts, by state, with comparisons over time. It highlighted the fact that typically 25 percent or more of districts in states were having enrollment patterns that contrasted with the predominant state pattern of increase or decrease. It explored a methodology to adjust AFGR district data for migration, which may improve the quality of school district and state indicators. Migration among school districts was one of the limitations found to have a substantial impact on graduation rates, particularly for towns and rural areas. This was particularly noted in the differences in the graduation rate patterns using the regressions from 1994-95 though 2004-05. The analyses from this paper suggest that the national increase in the AFGR between 1994-95 and 2004-05 was reflected in districts found in many states; however, there were many contrasting patterns across states and within states. The migration-adjusted graduation rates indicated that the increases in graduation rates among city, suburban, town and rural areas were generally similar at the national level, in contrast to the base AFGR data, which indicated that increases between 1994-95 and 2004-05 were more concentrated in city and suburban areas. This suggests that in-migration or immigration might have differential effects for city and suburban districts, compared to town and rural districts. This paper highlighted the volatility of local level data across all three indicators, possibly resulting from the inherent behavior of statistical data of small units as well as from reporting errors. The volatility of small unit data was confirmed through computations of standard deviations for several metrics, which showed consistently higher variations for smaller districts compared to larger districts. It used micro-indicators highlighting the median and key percentiles to help minimize the impact of these outliers. A better understanding of changes in graduation rates and other indicators will result from minimizing the impact of the experiences of large districts or states, or erroneous data, so as not to mask dynamic changes among the smaller areas, as in the case of simple aggregate data.

Endnotes

[1]This figure was estimated based on grade-by-grade enrollment data tabulated from the National Center for Education Statistics, Private School Survey (PSS), 1999 through 2007.

[2]As an example, of the 12 percent of 15- to 17-year-olds who moved between 2002 and 2003, 5 percent (just under half of the movers) moved out of their county. http://www.census.gov/population/socdemo/migration/p20-549/tab01-1.xls. Downloaded January 12, 2007).

[2]For more detail on this topic, see: http://nces.ed.gov/ccd/CCDLocaleCode.asp.

90th and 95th percentiles of 9th to 12th grade graduation rates confirmed that significant numbers of districts did have 100 percent graduation rates, including at least 10 percent of the rural, remote districts.

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Table 1. Selected percentiles of index in change of public elementary and secondary school district enrollment, by locality: Fall 1995 through fall 200

Locale	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
All locales								
1995 to 1996	97.7	98.8	100.1	101.7	103.4	106.2	111.4	3.3
1996 to 1997	96.7	98.0	99.7	101.1	102.5	104.4	106.2	2.8
1997 to 1998	93.7	97.1	99.1	100.5	102.3	104.0	105.6	3.2
1998 to 1999	96.3	97.4	99.0	100.5	102.2	103.9	105.6	3.2
1999 to 2000	96.1	97.3	99.0	100.6	102.3	104.2	105.8	3.3
2000 to 2001	96.2	97.5	99.1	100.9	102.7	104.5	106.0	3.5
2001 to 2002	96.9	98.0	99.4	101.0	102.6	104.4	106.0	3.2
2002 to 2003	95.0	97.1	99.0	100.5	102.4	104.7	106.2	3.3
2003 to 2004	95.5	96.4	98.6	100.2	102.2	104.6	106.2	3.7
2004 to 2005	95.8	97.2	98.7	100.5	102.6	104.9	106.9	3.9
2005 to 2006	95.5	96.8	98.3	100.0	101.9	104.5	106.5	3.6
Average 1995 to 1996 through 2005 to 2006 ...	95.9	97.4	99.1	100.7	102.5	104.6	106.6	3.4
City, large								
1995 to 1996	98.8	99.8	100.9	101.7	103.0	105.3	113.6	2.2
1996 to 1997	98.0	98.8	100.2	100.8	102.0	103.3	104.6	1.8
1997 to 1998	90.2	97.2	99.3	100.1	102.0	102.8	103.8	2.7
1998 to 1999	96.7	98.2	99.5	100.3	101.7	102.2	103.2	2.2
1999 to 2000	97.1	98.0	99.1	100.1	101.6	102.8	103.9	2.5
2000 to 2001	97.5	98.0	98.4	100.5	101.9	103.0	104.1	3.5
2001 to 2002	97.8	98.6	99.7	100.8	102.6	103.4	104.2	2.9
2002 to 2003	94.5	95.0	97.7	99.6	100.4	103.1	104.4	2.6
2003 to 2004	94.0	96.2	97.4	98.9	100.4	104.0	104.7	3.0
2004 to 2005	94.8	97.2	98.3	99.6	102.7	103.9	105.4	4.4
2005 to 2006	94.6	96.4	97.3	98.5	99.9	103.1	104.9	2.6
Average 1995 to 1996 through 2005 to 2006 ...	95.8	97.6	98.9	100.1	101.7	103.4	105.2	2.8
City, midsize								
1995 to 1996	98.3	99.0	99.9	101.3	102.6	104.4	108.2	2.7
1996 to 1997	97.2	97.8	99.7	100.7	102.1	103.5	105.1	2.4
1997 to 1998	97.1	98.2	99.0	100.1	101.9	103.1	104.0	2.9
1998 to 1999	97.6	98.2	99.0	100.2	101.7	103.0	103.3	2.7
1999 to 2000	96.2	97.5	99.2	100.7	101.9	103.4	104.5	2.7
2000 to 2001	95.6	98.2	99.4	100.7	101.9	104.0	104.9	2.5
2001 to 2002	97.3	98.5	99.4	100.4	102.2	103.6	104.6	2.7
2002 to 2003	96.7	97.5	99.1	100.3	101.5	103.1	104.2	2.4
2003 to 2004	95.8	97.3	98.6	99.9	101.8	102.8	105.2	3.1
2004 to 2005	95.5	96.5	98.6	100.2	101.7	103.3	105.1	3.1
2005 to 2006	95.6	97.3	98.1	99.7	101.1	104.0	107.2	3.1
Average 1995 to 1996 through 2005 to 2006 ...	96.6	97.8	99.1	100.4	101.8	103.5	105.1	2.7
City, small								
1995 to 1996	97.6	98.5	99.8	101.3	102.5	104.6	106.0	2.7
1996 to 1997	96.0	97.6	99.2	100.6	101.8	103.2	104.1	2.7
1997 to 1998	96.0	97.6	98.8	100.1	101.4	103.0	104.5	2.6
1998 to 1999	96.5	97.4	98.5	99.9	101.4	102.9	104.2	2.9
1999 to 2000	96.9	97.6	98.8	100.0	101.4	103.7	104.5	2.6
2000 to 2001	96.7	97.8	98.9	100.5	101.9	104.1	105.3	2.9
2001 to 2002	97.2	98.0	99.2	100.7	102.1	104.2	105.8	3.0
2002 to 2003	96.4	97.7	99.0	100.5	102.0	104.1	105.5	3.0
2003 to 2004	96.1	96.8	98.5	100.1	101.9	104.2	105.5	3.3
2004 to 2005	95.8	96.8	98.9	100.5	102.3	103.8	106.3	3.4
2005 to 2006	95.3	96.9	98.9	100.3	101.6	103.9	105.2	2.8
Average 1995 to 1996 through 2005 to 2006 ...	96.4	97.5	98.9	100.4	101.8	103.8	105.2	2.9
Suburban, large								
1995 to 1996	99.3	100.0	100.9	102.3	104.1	107.4	112.7	3.2
1996 to 1997	98.3	99.4	100.6	101.9	103.3	105.2	106.5	2.7
1997 to 1998	93.8	98.6	100.0	101.6	102.9	104.9	106.5	2.9
1998 to 1999	97.8	98.8	100.1	101.7	102.9	104.7	106.4	2.8
1999 to 2000	97.7	98.6	100.1	101.8	103.1	104.8	106.5	3.1
2000 to 2001	97.5	98.8	100.3	102.0	103.7	105.7	106.4	3.3
2001 to 2002	98.2	99.1	100.1	101.6	103.2	105.0	106.2	3.1
2002 to 2003	97.6	98.6	99.9	101.5	103.5	105.4	106.9	3.6

2003 to 2004	96.0	97.4	99.2	100.8	102.8	104.7	106.0	3.6
2004 to 2005	96.5	97.9	99.1	100.8	103.0	105.3	107.1	3.9
2005 to 2006	96.8	97.7	98.8	100.2	102.2	104.8	106.4	3.3
Average 1995 to 1996 through 2005 to 2006 ...	97.2	98.6	99.9	101.5	103.1	105.3	107.1	3.2
Suburban, midsize								
1995 to 1996	98.3	99.2	100.6	102.1	103.3	106.8	108.0	2.7
1996 to 1997	96.8	98.5	100.4	101.9	102.9	104.7	107.2	2.5
1997 to 1998	95.9	97.8	99.6	101.0	102.4	105.2	106.7	2.8
1998 to 1999	97.1	97.8	99.5	101.0	102.3	104.9	105.9	2.8
1999 to 2000	97.2	98.3	99.6	101.0	102.5	104.3	105.9	2.9
2000 to 2001	97.5	98.2	100.0	101.4	103.1	105.5	106.8	3.1
2001 to 2002	97.8	98.5	99.8	101.2	102.6	104.8	106.6	2.8
2002 to 2003	96.9	98.3	99.9	101.2	102.9	105.3	105.4	3.1
2003 to 2004	95.7	98.1	99.5	101.1	102.6	105.2	106.4	3.2
2004 to 2005	96.7	97.7	99.6	101.2	102.8	105.2	105.9	3.2
2005 to 2006	96.6	97.6	99.4	100.9	102.7	104.6	106.9	3.3
Average 1995 to 1996 through 2005 to 2006 ...	96.9	98.2	99.8	101.3	102.7	105.1	106.5	2.9
Suburban, small								
1995 to 1996	97.7	98.8	100.2	102.0	103.6	105.5	109.6	3.4
1996 to 1997	97.3	98.0	99.3	100.8	102.5	104.1	105.1	3.2
1997 to 1998	96.9	98.3	99.9	101.0	102.6	104.8	105.7	2.7
1998 to 1999	96.8	97.5	99.1	100.8	102.1	104.1	105.1	3.0
1999 to 2000	96.5	98.1	99.7	101.3	103.3	104.9	107.7	3.6
2000 to 2001	96.9	97.9	99.7	101.3	102.5	105.3	105.8	2.7
2001 to 2002	97.6	98.3	99.4	101.1	103.3	103.9	105.6	3.9
2002 to 2003	96.2	98.1	100.0	101.3	103.1	106.7	107.5	3.1
2003 to 2004	96.0	97.4	99.3	101.4	102.7	105.9	107.2	3.4
2004 to 2005	96.6	97.1	99.2	101.1	103.1	105.4	105.6	3.9
2005 to 2006	96.8	97.8	99.4	101.1	102.9	104.3	107.1	3.5
Average 1995 to 1996 through 2005 to 2006 ...	96.9	97.9	99.6	101.2	102.9	105.0	106.5	3.3
Town, fringe								
1995 to 1996	97.5	98.4	99.7	101.4	103.2	105.7	108.0	3.5
1996 to 1997	94.8	97.3	99.0	100.2	102.1	103.7	105.5	3.1
1997 to 1998	96.2	97.5	99.0	100.0	101.6	103.9	105.0	2.6
1998 to 1999	97.0	97.6	98.7	100.2	101.9	103.7	105.0	3.3
1999 to 2000	96.1	97.0	98.6	100.1	101.8	103.9	105.7	3.1
2000 to 2001	95.9	97.1	98.6	100.2	102.1	104.6	106.1	3.5
2001 to 2002	97.1	98.0	99.3	100.9	102.2	104.3	105.4	2.9
2002 to 2003	96.9	97.7	99.0	100.3	102.0	104.0	106.0	2.9
2003 to 2004	96.6	97.5	98.7	100.6	102.1	104.5	105.6	3.4
2004 to 2005	96.3	97.2	99.0	100.6	102.9	104.9	107.1	3.9
2005 to 2006	96.2	97.4	98.8	100.5	102.6	105.5	107.2	3.8
Average 1995 to 1996 through 2005 to 2006 ...	96.4	97.5	99.0	100.5	102.2	104.4	106.0	3.3
Town, distant								
1995 to 1996	97.0	97.9	99.2	100.6	102.3	105.0	111.0	3.1
1996 to 1997	96.4	97.3	98.6	100.0	101.4	103.2	104.9	2.8
1997 to 1998	93.4	96.2	98.2	99.8	101.1	102.5	104.5	2.8
1998 to 1999	95.8	96.8	98.0	99.5	101.0	102.7	104.5	2.9
1999 to 2000	95.3	96.6	97.9	99.4	100.7	102.5	104.1	2.8
2000 to 2001	95.8	96.8	98.3	99.8	101.3	103.1	104.3	3.0
2001 to 2002	96.3	97.4	98.6	100.1	101.6	103.2	104.3	3.0
2002 to 2003	96.0	97.0	98.4	100.0	101.3	102.8	104.3	2.9
2003 to 2004	96.2	97.1	98.4	100.0	101.7	103.5	104.4	3.4
2004 to 2005	95.9	97.2	98.7	100.2	101.7	103.3	105.6	3.0
2005 to 2006	95.4	96.6	98.1	99.8	101.3	102.9	104.5	3.2
Average 1995 to 1996 through 2005 to 2006 ...	95.8	97.0	98.4	99.9	101.4	103.1	105.1	3.0
Town, remote								
1995 to 1996	96.0	97.2	98.6	100.2	102.0	104.9	110.7	3.4
1996 to 1997	95.5	96.3	97.9	99.4	101.1	102.5	104.5	3.2
1997 to 1998	92.4	95.2	97.1	98.7	100.3	101.8	103.0	3.2
1998 to 1999	94.3	95.5	97.0	98.6	100.2	101.9	102.9	3.2
1999 to 2000	94.3	95.3	97.0	98.6	100.2	101.9	102.8	3.2
2000 to 2001	94.5	95.6	97.3	99.0	100.8	102.4	103.5	3.6
2001 to 2002	95.1	96.1	97.8	99.4	101.1	102.5	104.0	3.2

2002 to 2003	95.1	96.3	97.8	99.4	101.0	102.7	103.7	3.2
2003 to 2004	95.0	96.2	97.7	99.3	100.9	102.7	104.2	3.2
2004 to 2005	94.9	96.7	98.3	99.9	101.8	103.3	104.5	3.5
2005 to 2006	94.1	95.7	97.8	99.6	101.5	103.2	104.5	3.7
Average 1995 to 1996 through 2005 to 2006 ...	94.7	96.0	97.7	99.3	101.0	102.7	104.4	3.3
Rural, fringe								
1995 to 1996	97.3	98.4	100.0	101.9	103.9	106.6	109.4	3.9
1996 to 1997	96.6	97.8	99.7	101.4	103.2	105.4	107.9	3.5
1997 to 1998	95.5	97.4	99.3	100.6	102.9	105.0	106.7	3.6
1998 to 1999	96.1	97.3	99.2	100.9	103.1	105.1	106.5	3.9
1999 to 2000	96.0	97.0	98.9	100.7	103.1	106.2	108.9	4.3
2000 to 2001	96.0	97.4	99.3	101.1	103.4	105.9	109.3	4.1
2001 to 2002	96.8	97.9	99.6	101.3	103.7	106.3	108.7	4.1
2002 to 2003	96.4	97.8	99.5	101.4	103.5	107.1	109.9	4.0
2003 to 2004	96.5	97.7	99.4	101.3	103.7	107.9	111.2	4.3
2004 to 2005	96.3	97.6	99.7	101.7	104.3	108.2	111.5	4.6
2005 to 2006	95.7	97.3	99.3	101.3	103.9	108.6	112.0	4.6
Average 1995 to 1996 through 2005 to 2006 ...	96.3	97.6	99.4	101.2	103.5	106.6	109.3	4.1
Rural, distant								
1995 to 1996	96.0	97.6	99.3	101.2	103.3	106.6	110.5	3.9
1996 to 1997	94.8	96.4	98.8	100.4	102.5	105.1	107.3	3.7
1997 to 1998	92.9	95.8	98.3	100.0	101.7	103.9	105.8	3.4
1998 to 1999	94.8	96.2	98.2	99.9	101.7	103.8	106.0	3.5
1999 to 2000	94.3	95.9	97.8	99.6	101.5	103.5	105.1	3.7
2000 to 2001	94.7	96.1	97.9	100.0	101.7	103.8	105.4	3.7
2001 to 2002	95.4	96.7	98.4	100.2	102.0	104.4	106.3	3.6
2002 to 2003	94.9	96.3	98.3	100.2	101.9	103.7	106.1	3.6
2003 to 2004	94.3	96.1	98.4	100.4	102.1	104.5	106.3	3.6
2004 to 2005	95.1	96.7	98.7	100.5	102.5	105.1	107.1	3.8
2005 to 2006	94.0	95.8	98.1	100.3	102.2	104.6	106.5	4.1
Average 1995 to 1996 through 2005 to 2006 ...	94.7	96.3	98.4	100.2	102.1	104.5	106.6	3.7
Rural, remote								
1995 to 1996	93.5	95.7	98.2	100.3	102.8	106.3	109.6	4.5
1996 to 1997	92.7	94.6	97.3	99.4	101.6	104.2	107.0	4.4
1997 to 1998	91.0	93.7	96.3	98.7	100.6	103.5	105.8	4.3
1998 to 1999	91.9	93.6	96.4	98.5	100.6	103.3	105.7	4.2
1999 to 2000	91.4	93.5	96.0	98.3	100.3	103.3	105.4	4.3
2000 to 2001	91.7	93.5	96.4	98.7	101.0	103.7	105.8	4.6
2001 to 2002	92.2	94.0	96.9	98.8	101.3	103.7	105.8	4.4
2002 to 2003	91.3	93.7	96.5	98.9	101.0	104.1	106.6	4.5
2003 to 2004	91.3	93.9	96.6	99.0	101.3	103.9	106.7	4.7
2004 to 2005	92.0	94.0	96.7	99.0	101.8	104.6	107.4	5.0
2005 to 2006	91.5	93.3	95.9	98.7	101.2	104.0	106.9	5.3
Average 1995 to 1996 through 2005 to 2006 ...	91.9	93.9	96.7	98.9	101.2	104.0	106.6	4.6

†Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1994-95 through 2006-07 and "Local Education Agency Universe Survey," 1994-95 through 2006-07.

Table 2. Selected percentiles of index in change of public elementary and secondary school district enrollment, by state: Fall 2005 to fall 200(

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**95.5**	**96.8**	**98.3**	**100.0**	**101.9**	**104.5**	**106.5**	**3.6**
Alabama	95.1	97.4	99.0	100.3	101.6	103.2	103.7	2.6
Alaska	95.8	97.3	99.0	99.0	102.3	102.8	102.8	3.3
Arizona	93.6	97.5	99.5	101.3	104.7	113.2	116.6	5.2
Arkansas	93.8	96.2	98.7	101.0	102.8	105.7	109.7	4.1
California	95.9	96.8	97.3	99.1	101.1	103.9	105.8	3.8
Colorado	97.0	99.0	99.8	100.9	102.8	104.8	109.1	3.0
Connecticut	97.1	97.6	98.5	100.0	101.3	102.1	103.0	2.7
Delaware	96.2	96.2	97.6	99.9	102.8	104.6	107.6	5.1
Dist. of Columbia[1]	†	†	†	95.5	†	†	†	†
Florida	96.8	97.2	97.7	99.5	100.6	104.1	104.4	2.9
Georgia	98.5	98.8	99.8	101.3	104.0	105.7	107.4	4.2
Hawaii[1]	†	†	†	98.9	†	†	†	†
Idaho	97.9	98.6	99.4	100.9	105.0	105.5	109.4	5.5
Illinois	96.1	97.6	98.3	99.6	101.8	103.9	107.2	3.6
Indiana	97.2	97.7	99.2	100.9	102.3	104.0	106.1	3.1
Iowa	94.9	96.6	98.3	99.9	101.5	104.1	105.5	3.2
Kansas	95.6	96.7	98.5	100.1	102.7	104.2	106.4	4.2
Kentucky	90.1	91.5	93.9	94.6	97.2	100.3	101.6	3.3
Louisiana	97.2	97.9	98.5	99.2	101.3	104.6	105.4	2.9
Maine	93.4	94.8	97.5	99.6	100.5	102.3	104.4	3.0
Maryland	96.4	96.6	98.3	98.9	99.6	100.9	101.4	1.3
Massachusetts	96.3	97.2	98.3	99.5	100.9	102.4	103.3	2.6
Michigan	88.3	91.4	96.4	99.1	101.1	102.4	104.4	4.7
Minnesota	96.1	96.2	98.5	99.3	101.2	103.9	105.5	2.7
Mississippi	95.0	96.0	98.3	99.8	102.0	105.8	105.8	3.8
Missouri	93.7	94.9	98.4	100.6	102.1	105.0	106.8	3.7
Montana	91.9	95.2	97.2	99.8	101.7	104.3	106.7	4.5
Nebraska	96.1	98.6	100.8	101.3	103.1	106.8	110.3	2.3
Nevada	99.0	101.1	103.2	103.2	103.2	103.2	103.2	0.0
New Hampshire	95.9	96.5	97.9	98.7	100.1	101.9	102.4	2.1
New Jersey	93.4	96.1	98.3	99.6	101.0	103.1	105.3	2.7
New Mexico	95.7	97.3	99.5	100.6	101.6	101.6	104.6	2.1
New York	95.9	97.3	98.5	98.5	99.7	100.9	101.7	1.2
North Carolina	97.5	98.6	100.1	101.9	103.9	106.4	108.6	3.8
North Dakota	92.6	94.4	96.7	98.9	100.7	103.9	104.3	4.0
Ohio	94.6	95.0	97.6	99.5	101.3	103.4	105.7	3.7
Oklahoma	95.7	97.3	99.7	101.0	102.6	104.4	106.3	2.9
Oregon	98.0	99.5	101.9	103.2	106.0	110.4	111.1	4.1
Pennsylvania	96.6	96.6	98.6	100.6	102.4	104.6	106.0	3.8
Rhode Island	96.3	96.8	97.5	98.3	99.8	100.9	101.7	2.3
South Carolina	96.5	97.3	99.9	100.4	102.1	103.2	104.3	2.2
South Dakota	92.4	94.2	97.8	101.1	101.3	104.0	106.6	3.5
Tennessee	97.6	97.6	100.3	102.3	104.6	108.9	109.6	4.3
Texas	96.5	96.9	98.9	101.1	104.1	106.8	108.3	5.2
Utah	98.9	99.8	100.2	100.8	101.9	104.6	106.2	1.7
Vermont	92.9	94.1	96.9	98.3	100.7	103.4	104.4	3.7
Virginia	97.6	97.6	98.9	100.1	102.1	103.6	105.2	3.2
Washington	94.7	96.0	98.0	99.6	101.1	102.1	103.5	3.0
West Virginia	97.8	98.7	99.8	100.4	101.3	102.6	104.5	1.5
Wisconsin	96.5	97.3	98.5	100.2	101.6	103.7	105.0	3.1
Wyoming	94.5	96.0	97.9	98.3	100.5	102.0	103.1	2.6

†Not applicable.

[1]Jurisdiction has only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2005-06 and 2006-07 and "Local Education Agency Universe Survey," 2005-06 and 2006-07.

Table 3. Selected percentiles of index in change of public elementary and secondary school district enrollment, by state: Fall 1995 to fall 199(

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**97.7**	**98.8**	**100.1**	**101.7**	**103.4**	**106.2**	**111.4**	**3.3**
Alabama	97.1	97.9	98.8	99.8	101.5	103.4	104.0	2.7
Alaska	98.9	99.4	101.1	101.7	102.3	103.5	105.4	1.2
Arizona	96.5	99.1	100.2	102.6	104.4	109.6	112.6	4.2
Arkansas	95.5	96.7	98.8	100.4	103.0	105.3	106.8	4.1
California	98.8	100.1	101.6	102.8	103.6	105.4	107.0	2.0
Colorado	98.5	99.9	101.4	102.4	103.8	104.8	110.4	2.4
Connecticut	98.2	98.5	100.9	101.7	102.5	104.2	105.2	1.6
Delaware	100.2	100.2	101.1	101.6	102.2	102.7	104.2	1.2
Dist. of Columbia[1]	†	†	†	98.6	†	†	†	†
Florida	101.2	101.7	102.2	102.7	104.1	104.9	105.3	1.9
Georgia	98.8	99.4	101.1	102.7	105.0	106.4	106.5	3.9
Hawaii[1]	†	†	†	100.3	†	†	†	†
Idaho	96.7	97.8	99.2	100.7	102.8	105.3	105.3	3.5
Illinois	108.1	110.6	113.3	113.7	116.7	120.2	122.7	3.4
Indiana	97.3	98.1	99.2	100.2	101.7	103.4	104.6	2.5
Iowa	96.4	97.1	98.5	100.2	101.8	104.1	106.0	3.3
Kansas	96.3	97.5	99.0	100.7	102.1	105.1	106.6	3.1
Kentucky	92.5	96.4	98.7	99.4	100.6	102.6	103.5	1.9
Louisiana	97.7	99.2	99.7	101.2	103.5	105.2	106.7	3.7
Maine	95.7	96.7	98.1	100.2	101.4	103.7	104.1	3.3
Maryland	98.9	98.9	101.3	101.8	102.5	103.0	103.5	1.2
Massachusetts	98.6	99.3	100.1	101.5	103.2	105.1	105.9	3.1
Michigan	98.4	99.6	101.0	102.8	104.9	106.1	107.1	3.9
Minnesota	96.9	98.2	99.6	101.6	102.9	104.0	105.5	3.3
Mississippi	97.2	97.5	98.8	99.8	101.3	103.2	104.5	2.5
Missouri	97.9	98.5	101.3	102.6	105.4	107.0	108.6	4.1
Montana	93.5	94.5	97.3	98.9	102.3	104.9	108.0	5.0
Nebraska	95.2	97.8	99.4	101.2	102.0	104.7	107.5	2.6
Nevada	104.4	104.4	104.5	107.4	107.4	107.4	107.4	2.9
New Hampshire	97.3	98.5	99.9	101.1	102.5	105.4	106.9	2.6
New Jersey	---	---	---	---	---	---	---	---
New Mexico	97.5	98.5	99.9	100.1	102.2	104.8	106.2	2.4
New York	97.8	98.8	100.6	101.4	101.4	103.2	103.8	0.9
North Carolina	99.4	99.8	101.2	102.2	104.2	104.8	105.3	3.0
North Dakota	94.1	96.4	98.2	99.9	101.6	103.2	105.6	3.4
Ohio	96.6	97.6	99.0	100.4	101.5	103.1	104.5	2.5
Oklahoma	95.9	96.8	99.2	100.8	102.2	104.6	106.7	3.0
Oregon	97.6	99.3	100.8	102.3	103.4	103.7	104.7	2.6
Pennsylvania	97.9	98.6	99.9	100.8	102.1	103.6	104.4	2.2
Rhode Island	98.7	98.8	100.0	101.2	102.1	103.2	103.3	2.1
South Carolina	98.4	98.8	99.9	100.8	102.3	103.3	103.9	2.5
South Dakota	92.4	95.8	97.8	99.3	100.5	105.0	109.1	2.7
Tennessee	97.3	97.3	98.8	101.1	101.7	103.3	104.1	2.9
Texas	98.1	99.2	100.5	101.9	103.9	106.1	108.0	3.4
Utah	99.2	99.2	100.5	100.7	101.5	102.8	103.8	0.9
Vermont	92.4	94.2	98.2	100.8	103.7	107.3	109.7	5.5
Virginia	98.9	99.7	100.3	101.6	102.2	103.6	105.2	1.9
Washington	98.6	99.2	100.8	101.7	103.3	105.2	106.9	2.5
West Virginia	95.8	97.2	98.3	99.2	100.1	101.8	102.2	1.8
Wisconsin	97.7	98.9	99.8	101.1	102.7	103.3	104.3	2.9
Wyoming	95.4	95.6	98.0	99.1	99.6	101.8	102.6	1.6

---Not available.
†Not applicable.
[1]Jurisdiction has only one school district.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1995-96 and 1996-97 and "Local Education Agency Universe Survey," 1995-96 and 1996-97.

Table 4. Standard deviation in enrollment change index for public elementary and secondary school districts, by size of district and locale: 1995-96 through 2005-06

District size and locale	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**0.8**	**0.9**	**1.2**	**1.8**	**2.6**	**4.6**	**5.9**	**1.3**
Less than 300	3.3	3.8	4.9	6.5	9.4	14.9	21.7	4.4
300 to 599	2.3	2.7	3.3	4.2	5.6	8.4	12.8	2.4
600 to 999	1.8	2.0	2.5	3.2	4.7	7.4	10.3	2.2
1000 to 2,400	1.3	1.5	1.8	2.4	3.4	5.9	7.8	1.6
2,500 or more	0.8	0.9	1.2	1.6	2.3	3.8	5.2	1.1
City, large[1]	**0.8**	**1.0**	**1.2**	**1.8**	**2.3**	**4.6**	**5.2**	**1.1**
2,500 or more	**0.8**	**1.0**	**1.2**	**1.8**	**2.3**	**4.6**	**5.2**	**1.1**
City, midsize[2]	0.7	0.8	1.0	1.4	2.2	3.6	6.2	1.2
2,500 or more	**0.7**	**0.8**	**1.0**	**1.4**	**2.2**	**3.6**	**6.2**	**1.2**
City, small[3]	**0.7**	**0.9**	**1.2**	**1.6**	**2.2**	**3.3**	**4.7**	**1.1**
1000 to 2,400	1.4	1.9	2.1	3.0	4.6	9.4	11.7	2.6
2,500 or more	**0.7**	**0.9**	**1.2**	**1.6**	**2.2**	**3.2**	**4.7**	**1.0**
Suburban, large[4]	**0.8**	**0.9**	**1.1**	**1.6**	**2.4**	**4.2**	**5.6**	**1.2**
600 to 999	2.1	2.4	3.0	4.3	6.4	7.8	17.1	3.4
1000 to 2,400	1.2	1.5	1.9	2.9	5.0	7.5	10.3	3.0
2,500 or more	**0.7**	**0.9**	**1.1**	**1.5**	**2.2**	**3.8**	**5.0**	**1.1**
Suburban, midsize[5]	**0.8**	**0.9**	**1.0**	**1.6**	**2.5**	**4.6**	**6.2**	**1.5**
1000 to 2,400	1.3	1.5	1.9	2.6	4.1	7.0	12.3	2.2
2,500 or more	0.8	0.8	1.0	1.5	2.2	3.6	5.8	1.2
Suburban, small[6]	**0.9**	**0.9**	**1.1**	**1.8**	**2.6**	**4.3**	**4.9**	**1.5**
1000 to 2,400	1.5	1.6	1.9	2.6	4.0	7.7	15.8	2.1
2,500 or more	0.9	0.9	1.0	1.6	2.3	3.6	4.5	1.3
Town, fringe[7]	**1.0**	**1.1**	**1.4**	**1.9**	**2.6**	**4.2**	**5.9**	**1.2**
600 to 999	1.7	1.8	2.2	2.9	4.3	6.7	7.2	2.1
1000 to 2,400	1.2	1.3	1.7	2.3	3.0	5.6	7.6	1.3
2,500 or more	0.9	1.0	1.4	1.8	2.3	3.6	4.7	1.0
Town, distant[8]	**0.9**	**1.1**	**1.4**	**1.9**	**2.6**	**4.1**	**6.1**	**1.1**
300 to 599	2.4	2.7	3.6	4.9	7.3	12.9	23.4	3.7
600 to 999	1.8	2.1	2.5	3.1	4.5	7.6	8.5	2.0
1000 to 2,400	1.3	1.5	1.7	2.3	2.9	4.3	6.1	1.2
2,500 or more	0.8	1.0	1.3	1.7	2.2	2.9	4.9	0.9
Town, remote[9]	1.1	1.2	1.6	2.1	2.9	4.7	6.5	1.3
300 to 599	2.7	2.9	3.4	4.2	6.0	8.1	15.7	2.6
600 to 999	1.9	2.1	2.5	3.2	4.9	6.3	7.9	2.3
1000 to 2,400	1.4	1.5	2.0	2.4	3.3	5.3	7.1	1.4
2,500 or more	1.0	1.1	1.4	1.8	2.4	3.2	5.5	1.0
Rural, fringe[12]	0.9	1.0	1.4	1.9	2.9	5.4	8.3	1.5
300 to 599	2.3	2.6	3.4	4.5	6.4	9.4	21.4	3.0
600 to 999	1.6	1.9	2.7	3.4	4.9	7.5	10.6	2.2
1000 to 2,400	1.3	1.5	1.8	2.3	3.3	5.9	7.6	1.5
2,500 or more	0.8	0.9	1.2	1.7	2.5	4.7	8.0	1.3
Rural, distant[13]	**0.9**	**1.2**	**1.5**	**2.3**	**3.5**	**5.9**	**8.4**	**2.0**
Less than 300	3.2	3.9	5.3	6.8	9.3	13.7	19.3	4.1
300 to 599	2.3	2.7	3.3	4.2	5.6	7.9	10.2	2.3
600 to 999	1.7	1.9	2.4	3.0	4.0	6.6	8.6	1.6
1000 to 2,400	1.3	1.5	1.8	2.3	3.1	4.2	5.3	1.3
2,500 or more	0.6	0.9	1.2	1.6	2.4	4.2	7.2	1.2
Rural, remote[14]	**1.3**	**1.5**	**2.2**	**3.2**	**4.9**	**8.0**	**11.7**	**2.7**
Less than 300	3.2	3.7	4.7	6.1	8.6	13.1	18.0	3.9
300 to 599	2.3	2.6	3.2	4.1	5.1	7.3	9.2	1.9
600 to 999	1.8	2.0	2.5	3.1	4.3	7.3	15.9	1.8
1000 to 2,400	1.3	1.5	1.8	2.4	3.5	5.8	11.2	1.6
2,500 or more	0.9	1.0	1.2	1.5	2.2	3.3	4.2	1.0

[1]Located inside an urbanized area and inside a principal city with a population of at least 250,000.
[2]Located inside an urbanized area and inside a principal city with a population of at least 100,000, but less than 250,000.
[3]Located inside an urbanized area and inside a principal city with a population less than 100,000.
[4]Located inside an urbanized area and outside a principal city with a population of 250,000 or more.
[5]Located inside an urbanized area and outside a principal city with a population of at least 100,000, but less than 250,000.
[6]Located inside an urbanized area and outside a principal city with a population less than 100,000.
[7]Located inside an urban cluster that is 10 miles or less from an urbanized area.
[8]Located inside an urban cluster that is more than 10, but less than or equal to 35 miles from an urbanized area.
[9]Located inside an urban cluster that is more than 35 miles from an urbanized area.
[10]Located outside any urbanized area or urban cluster and is 5 miles or less from an urbanized area or 2 miles or less from an urban cluster.
[11]Located outside any urbanized area or urban cluster and is more than 5 miles and less than or equal to 25 miles from an urbanized area, or more than 2 miles and less than or equal to 10 miles from an urban cluster.
[12]Located outside any urbanized area or urban cluster and more than 25 miles from an urbanized area or more than 10 miles from a

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. Urbanized areas are densely settled areas containing at least 50,000 people. Urban clusters are densely settled areas with populations of 2,500 to 49,999.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1994-95 through 2006-07.

Table 5. Selected percentiles of index in change of public elementary and secondary school district pupil/teacher ratios, by locality: Fall 1995 through fall 200

Locale	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
All locales								
1995 to 1996	91.8	93.9	97.0	99.4	101.4	105.3	111.3	4.3
1996 to 1997	90.3	92.4	95.2	98.1	100.2	102.5	104.4	5.0
1997 to 1998	89.5	92.3	95.9	98.1	100.2	102.7	106.5	4.3
1998 to 1999	91.2	93.4	96.1	98.5	100.5	103.0	105.5	4.4
1999 to 2000	92.6	94.5	97.0	99.0	101.1	104.0	106.8	4.1
2000 to 2001	92.0	94.7	97.3	99.4	101.7	104.1	106.8	4.3
2001 to 2002	91.5	94.1	97.4	99.7	102.0	104.9	107.6	4.6
2002 to 2003	89.7	94.4	98.1	100.6	103.4	107.1	110.9	5.4
2003 to 2004	89.9	92.5	96.7	99.4	101.8	105.7	109.8	5.1
2004 to 2005	92.0	94.3	97.2	99.4	101.6	104.9	108.8	4.4
2005 to 2006	87.0	91.7	96.4	99.1	101.7	105.2	109.3	5.3
Average 1995 to 1996 through 2005 to 2006 ...	90.7	93.5	96.8	99.1	101.4	104.5	108.0	4.7
City, large								
1995 to 1996	92.8	94.3	96.8	98.7	101.1	105.5	111.3	4.4
1996 to 1997	91.6	92.4	93.8	96.9	101.4	102.7	103.3	7.6
1997 to 1998	90.2	93.1	96.6	97.5	99.7	101.8	108.4	3.1
1998 to 1999	91.5	92.9	96.3	98.6	100.1	101.8	104.3	3.8
1999 to 2000	94.1	95.3	97.7	99.0	100.3	105.9	107.8	2.7
2000 to 2001	92.4	95.2	97.6	99.0	101.9	104.1	106.4	4.3
2001 to 2002	86.7	93.4	97.1	99.5	102.5	105.0	105.6	5.4
2002 to 2003	89.1	89.1	96.3	100.5	103.1	106.9	109.9	6.9
2003 to 2004	85.0	88.6	97.3	100.4	100.8	103.0	107.0	3.4
2004 to 2005	93.7	95.5	98.2	99.4	100.7	105.9	114.5	2.5
2005 to 2006	92.8	95.6	97.2	99.2	103.1	104.7	112.7	5.9
Average 1995 to 1996 through 2005 to 2006 ...	90.9	93.2	96.8	99.0	101.4	104.3	108.3	4.5
City, midsize								
1995 to 1996	92.4	92.9	96.3	99.1	101.1	102.6	109.4	4.7
1996 to 1997	89.6	91.3	94.5	97.9	99.5	101.8	103.0	5.1
1997 to 1998	90.4	92.6	95.9	98.3	100.0	102.4	104.7	4.1
1998 to 1999	87.6	93.0	95.2	97.6	99.9	102.8	105.6	4.7
1999 to 2000	94.1	95.3	97.6	99.4	101.0	103.8	105.3	3.4
2000 to 2001	93.0	94.9	98.5	99.8	101.7	103.4	105.1	3.2
2001 to 2002	94.3	96.3	98.4	99.7	101.8	104.1	107.3	3.3
2002 to 2003	90.6	96.5	98.8	100.9	103.1	107.1	109.4	4.4
2003 to 2004	91.8	94.5	97.1	99.2	102.2	110.0	114.6	5.1
2004 to 2005	91.6	93.9	97.1	99.1	101.9	104.8	105.9	4.8
2005 to 2006	86.8	88.3	95.1	98.4	101.1	104.0	106.9	6.0
Average 1995 to 1996 through 2005 to 2006 ...	91.1	93.6	96.8	99.0	101.2	104.3	107.0	4.4
City, small								
1995 to 1996	90.9	93.3	96.4	99.0	101.4	104.3	108.8	5.0
1996 to 1997	90.0	92.9	95.9	98.3	100.2	102.2	103.8	4.3
1997 to 1998	87.9	92.4	95.8	98.2	100.3	102.7	106.3	4.5
1998 to 1999	90.8	93.8	95.8	98.1	100.4	103.6	107.2	4.6
1999 to 2000	92.6	94.5	96.9	99.0	100.8	102.8	104.8	3.9
2000 to 2001	92.1	94.9	97.7	99.4	101.3	103.4	105.6	3.6
2001 to 2002	92.7	95.2	97.8	99.9	102.1	105.6	108.4	4.3
2002 to 2003	94.3	95.7	98.9	101.1	103.9	106.3	109.6	4.9
2003 to 2004	91.2	93.5	96.6	99.5	101.9	105.4	109.3	5.3
2004 to 2005	91.7	94.6	97.7	99.5	102.1	104.7	106.7	4.5
2005 to 2006	89.7	92.0	96.4	99.3	101.6	105.4	109.0	5.2
Average 1995 to 1996 through 2005 to 2006 ...	91.3	93.9	96.9	99.2	101.5	104.2	107.2	4.6
Suburban, large								
1995 to 1996	91.9	94.3	97.5	99.7	101.1	105.3	111.2	3.6
1996 to 1997	90.9	93.2	96.2	98.4	99.8	101.5	103.1	3.6
1997 to 1998	88.7	92.9	96.5	98.0	99.9	101.9	103.3	3.4
1998 to 1999	92.9	94.7	96.8	98.8	100.6	102.7	104.2	3.8
1999 to 2000	93.0	95.0	97.3	99.0	101.1	103.5	107.8	3.8
2000 to 2001	93.0	95.7	97.4	99.5	101.3	103.7	105.7	3.8
2001 to 2002	93.0	95.0	97.7	99.8	101.5	103.7	106.1	3.8
2002 to 2003	93.1	96.0	98.5	100.8	103.2	106.7	111.6	4.8

2003 to 2004	91.4	91.9	96.0	98.7	101.4	105.3	109.9	5.5
2004 to 2005	91.7	94.2	97.0	99.2	101.2	104.3	107.1	4.2
2005 to 2006	87.3	92.6	97.2	99.4	101.4	105.1	107.9	4.3
Average 1995 to 1996 through 2005 to 2006 ...	91.5	94.1	97.1	99.2	101.2	104.0	107.1	4.0
Suburban, midsize								
1995 to 1996	90.5	93.3	96.4	99.5	101.3	103.1	106.2	4.8
1996 to 1997	90.1	91.8	95.8	98.6	100.9	102.6	104.1	5.2
1997 to 1998	90.1	93.1	96.6	98.5	100.0	102.4	103.9	3.4
1998 to 1999	91.2	93.0	95.9	98.1	100.9	102.7	103.6	5.0
1999 to 2000	93.0	94.9	96.6	98.8	100.9	102.9	105.3	4.3
2000 to 2001	92.6	95.4	98.1	100.2	101.2	103.1	104.6	3.1
2001 to 2002	92.8	94.1	97.4	100.2	102.0	105.1	108.5	4.6
2002 to 2003	94.2	94.5	98.2	100.8	103.7	107.7	109.8	5.5
2003 to 2004	92.5	94.5	97.4	99.1	102.1	105.3	109.4	4.7
2004 to 2005	93.6	94.5	96.9	99.5	101.2	104.2	106.7	4.3
2005 to 2006	87.5	90.5	96.4	99.0	101.2	104.7	108.3	4.8
Average 1995 to 1996 through 2005 to 2006 ...	91.7	93.6	96.9	99.3	101.4	104.0	106.4	4.5
Suburban, small								
1995 to 1996	93.0	95.3	98.1	99.7	101.6	103.8	107.4	3.5
1996 to 1997	90.7	93.0	94.7	97.8	100.0	101.5	103.4	5.3
1997 to 1998	91.2	92.9	96.3	98.1	100.1	101.5	103.1	3.8
1998 to 1999	91.5	93.4	96.5	98.1	100.4	102.5	103.6	3.9
1999 to 2000	93.1	95.0	97.8	99.3	101.6	104.6	106.4	3.8
2000 to 2001	94.1	94.8	97.1	99.3	100.5	104.5	108.6	3.4
2001 to 2002	90.1	93.8	97.1	99.6	101.8	104.6	107.3	4.7
2002 to 2003	94.3	96.7	98.6	101.2	104.5	107.7	112.9	5.9
2003 to 2004	84.6	92.1	96.6	100.0	102.3	103.7	106.1	5.7
2004 to 2005	89.0	93.5	97.3	99.3	100.7	103.1	108.3	3.4
2005 to 2006	90.7	95.1	97.0	99.5	102.7	106.7	111.5	5.7
Average 1995 to 1996 through 2005 to 2006 ...	91.1	94.1	97.0	99.3	101.5	104.0	107.1	4.5
Town, fringe								
1995 to 1996	92.3	94.0	96.7	99.3	101.6	104.9	107.4	4.8
1996 to 1997	90.0	92.6	95.2	97.8	99.9	102.3	103.4	4.8
1997 to 1998	90.7	92.6	95.4	97.9	100.1	103.0	105.2	4.7
1998 to 1999	92.0	93.8	96.1	98.2	100.8	103.1	106.3	4.7
1999 to 2000	92.7	94.6	96.6	98.6	101.1	104.0	106.5	4.5
2000 to 2001	93.7	95.7	97.4	99.6	101.8	104.5	106.5	4.4
2001 to 2002	91.4	94.3	97.3	99.8	102.3	105.9	108.4	5.0
2002 to 2003	93.1	95.3	98.0	100.8	103.4	107.1	110.4	5.4
2003 to 2004	91.7	94.1	97.2	99.9	102.4	106.5	109.4	5.2
2004 to 2005	90.0	94.4	97.6	99.5	101.6	104.3	107.5	3.9
2005 to 2006	88.7	92.2	96.9	99.2	102.0	106.7	110.4	5.0
Average 1995 to 1996 through 2005 to 2006 ...	91.5	94.0	96.8	99.1	101.5	104.8	107.4	4.8
Town, distant								
1995 to 1996	92.4	94.4	96.9	99.1	101.4	105.7	112.2	4.5
1996 to 1997	90.0	92.4	95.8	98.4	100.5	102.9	104.7	4.7
1997 to 1998	87.9	92.4	95.5	98.2	100.7	104.5	112.4	5.1
1998 to 1999	90.2	92.8	95.5	98.2	100.6	103.5	105.6	5.1
1999 to 2000	92.4	94.4	96.7	98.9	101.4	104.0	107.0	4.7
2000 to 2001	92.7	94.6	97.0	99.2	101.9	104.9	107.2	5.0
2001 to 2002	90.3	93.1	96.8	99.6	102.5	105.3	108.3	5.7
2002 to 2003	92.2	94.9	98.0	100.5	103.5	106.9	110.0	5.5
2003 to 2004	91.0	93.8	96.9	99.7	101.9	105.0	107.2	5.0
2004 to 2005	92.5	94.4	96.8	99.4	101.8	104.7	107.7	4.9
2005 to 2006	84.6	90.5	96.0	98.8	101.8	105.3	109.9	5.8
Average 1995 to 1996 through 2005 to 2006 ...	90.6	93.4	96.5	99.1	101.6	104.8	108.4	5.1
Town, remote								
1995 to 1996	91.4	94.3	97.0	99.4	101.9	105.4	111.2	5.0
1996 to 1997	90.7	93.5	95.9	98.0	100.4	102.6	104.7	4.6
1997 to 1998	85.5	91.8	95.3	98.0	100.3	105.0	118.3	5.0
1998 to 1999	89.5	92.4	95.1	97.7	100.2	103.9	106.4	5.1
1999 to 2000	92.3	93.9	96.3	98.9	101.4	104.7	106.5	5.1
2000 to 2001	91.8	94.3	96.8	98.9	101.8	104.9	107.0	5.0
2001 to 2002	90.8	94.2	97.4	99.9	102.8	105.8	109.3	5.4

2002 to 2003	91.0	94.2	97.4	100.5	103.3	107.0	110.0	5.9
2003 to 2004	90.2	92.5	96.1	98.9	101.8	105.8	109.3	5.7
2004 to 2005	92.1	93.9	96.8	99.2	101.9	105.4	108.7	5.0
2005 to 2006	86.6	89.5	95.9	99.0	102.4	106.5	111.1	6.5
Average 1995 to 1996 through 2005 to 2006 ...	90.2	93.1	96.4	99.0	101.6	105.2	109.3	5.3
Rural, fringe								
1995 to 1996	92.4	94.9	97.4	99.5	101.4	104.5	107.7	4.0
1996 to 1997	89.5	91.7	94.9	98.0	100.3	103.1	105.9	5.4
1997 to 1998	90.0	92.7	95.8	98.4	101.1	105.0	115.1	5.3
1998 to 1999	89.9	92.9	95.6	98.2	100.8	103.7	105.8	5.2
1999 to 2000	92.8	94.9	96.9	99.1	101.8	104.6	107.3	4.9
2000 to 2001	90.8	93.9	97.0	99.7	102.1	105.6	109.0	5.1
2001 to 2002	87.1	92.5	96.3	99.7	102.2	105.5	108.1	5.9
2002 to 2003	91.8	94.6	97.9	100.4	103.6	108.7	112.7	5.7
2003 to 2004	90.6	93.0	96.2	99.6	102.6	105.8	108.5	6.4
2004 to 2005	91.9	94.7	97.3	99.6	102.0	105.3	108.2	4.6
2005 to 2006	84.9	88.9	94.6	98.1	100.9	104.4	107.4	6.3
Average 1995 to 1996 through 2005 to 2006 ...	90.1	93.2	96.4	99.1	101.7	105.1	108.7	5.3
Rural, distant								
1995 to 1996	91.0	93.6	96.8	99.0	101.9	106.5	110.8	5.2
1996 to 1997	89.9	92.3	95.4	98.2	101.1	104.2	108.0	5.7
1997 to 1998	87.4	90.6	94.9	98.0	101.2	105.1	112.6	6.4
1998 to 1999	88.9	92.2	95.4	98.2	100.9	104.4	108.4	5.4
1999 to 2000	90.7	93.1	95.9	98.7	101.2	104.3	108.0	5.3
2000 to 2001	90.8	93.6	96.2	99.2	102.3	105.5	109.4	6.2
2001 to 2002	90.1	92.6	96.4	99.6	102.5	106.4	109.8	6.2
2002 to 2003	90.6	93.7	97.2	100.0	103.3	107.7	114.5	6.1
2003 to 2004	87.1	91.4	96.4	99.6	103.1	107.3	110.7	6.7
2004 to 2005	92.0	94.3	97.1	99.8	102.8	107.7	112.6	5.7
2005 to 2006	83.6	87.2	94.2	98.3	101.6	106.0	109.7	7.4
Average 1995 to 1996 through 2005 to 2006 ...	89.3	92.2	96.0	99.0	102.0	105.9	110.4	6.0
Rural, remote								
1995 to 1996	89.0	92.5	96.2	99.7	103.0	108.5	113.5	6.9
1996 to 1997	88.2	90.9	94.3	98.1	101.6	105.6	109.7	7.3
1997 to 1998	86.3	90.0	94.4	97.8	101.5	108.4	116.2	7.1
1998 to 1999	84.7	89.1	94.2	97.7	101.9	106.8	110.7	7.7
1999 to 2000	87.9	91.1	94.8	98.2	101.8	106.5	110.8	7.0
2000 to 2001	87.3	91.0	95.2	99.2	102.7	107.2	111.2	7.5
2001 to 2002	87.8	91.8	96.1	99.6	103.5	108.2	113.3	7.4
2002 to 2003	88.5	92.4	96.3	100.0	104.0	110.2	114.8	7.7
2003 to 2004	84.4	89.8	95.1	99.2	103.6	107.5	112.6	8.6
2004 to 2005	88.4	91.5	95.4	99.3	103.5	108.2	112.8	8.1
2005 to 2006	83.5	87.8	93.9	98.7	103.4	109.5	113.5	9.5
Average 1995 to 1996 through 2005 to 2006 ...	86.9	90.7	95.1	98.9	102.8	107.9	112.6	7.7

†Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1994-95 through 2006-07 and "Local Education Agency Universe Survey," 1994-95 through 2006-07.

Table 6. Selected percentiles of index in change of public elementary and secondary school district pupil/teacher ratios, by state: Fall 2005 to fall 200

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**87.0**	**91.7**	**96.4**	**99.1**	**101.7**	**105.2**	**109.3**	**5.3**
Alabama	80.0	82.2	85.3	86.3	90.9	98.8	101.3	5.7
Alaska	93.4	94.9	99.2	99.2	100.7	101.2	101.5	1.5
Arizona	86.8	93.1	97.1	98.3	101.8	106.5	111.9	4.7
Arkansas	75.3	79.5	84.9	90.4	93.7	99.3	105.0	8.8
California	94.6	96.3	96.7	99.0	101.0	103.2	105.1	4.4
Colorado	95.9	96.9	98.1	99.2	101.0	104.1	107.9	2.8
Connecticut	93.6	95.0	96.7	98.5	100.2	101.5	102.7	3.5
Delaware	94.1	95.7	97.3	99.0	102.3	109.0	109.0	5.1
Dist. of Columbia[1]	†	†	†	81.3	†	†	†	†
Florida	94.5	97.2	97.8	100.2	101.4	103.0	105.5	3.7
Georgia	91.7	93.5	95.9	97.4	99.6	100.0	100.6	3.7
Hawaii[1]	†	†	†	98.8	†	†	†	†
Idaho	95.2	97.0	98.8	100.2	101.1	103.4	106.5	2.3
Illinois	87.2	92.2	100.2	105.1	112.7	112.7	114.9	12.5
Indiana	93.3	95.3	97.4	99.5	101.4	103.6	105.5	4.1
Iowa	92.6	94.9	98.0	100.6	103.8	106.6	109.7	5.8
Kansas	80.3	83.6	88.0	91.2	93.3	97.4	101.8	5.3
Kentucky	84.5	85.6	88.4	90.1	92.1	94.9	98.7	3.7
Louisiana	95.4	96.4	98.1	99.5	100.9	103.1	103.9	2.8
Maine	90.5	92.4	94.6	97.3	99.6	102.3	103.4	5.0
Maryland	92.6	92.6	94.7	95.7	97.5	99.5	99.9	2.7
Massachusetts	93.0	95.3	97.8	100.0	101.6	105.0	106.3	3.8
Michigan	83.6	90.3	95.4	99.4	102.8	106.3	108.7	7.4
Minnesota	93.7	96.5	98.3	99.9	102.4	104.6	107.1	4.1
Mississippi	89.4	91.4	93.6	96.5	99.5	103.9	106.7	5.9
Missouri	99.4	100.3	101.9	104.6	106.6	110.4	111.9	4.8
Montana	91.2	93.4	95.6	98.8	102.4	104.4	107.4	6.9
Nebraska	90.6	94.0	97.8	98.8	99.3	101.0	102.7	1.4
Nevada	71.7	71.7	71.7	71.7	76.7	84.4	96.3	5.0
New Hampshire	92.2	95.2	96.7	98.7	101.5	103.6	105.8	4.8
New Jersey	93.5	94.8	97.9	99.9	103.0	106.5	114.4	5.1
New Mexico	89.7	96.9	100.4	101.1	104.7	109.1	114.3	4.3
New York	94.6	95.6	98.0	101.1	103.1	103.1	103.5	5.1
North Carolina	84.9	87.2	90.7	94.5	97.6	100.9	103.9	6.9
North Dakota	91.1	93.6	95.5	98.0	99.9	101.7	104.4	4.3
Ohio	85.8	90.4	96.6	101.3	105.8	110.1	115.9	9.2
Oklahoma	92.8	95.3	97.1	98.5	100.6	105.0	111.1	3.5
Oregon	85.2	86.4	91.5	96.0	101.4	112.9	124.9	10.0
Pennsylvania	94.5	96.4	97.4	99.6	102.1	104.4	106.0	4.7
Rhode Island	102.6	102.6	110.5	134.6	146.2	151.9	163.6	35.7
South Carolina	63.9	67.9	75.7	89.7	97.0	99.1	99.5	21.3
South Dakota	91.5	94.2	96.9	98.2	100.8	103.6	106.8	3.9
Tennessee	90.4	93.3	96.6	98.8	101.4	104.1	104.8	4.8
Texas	95.8	96.7	98.2	99.0	100.3	101.8	103.6	2.1
Utah	100.4	100.4	102.0	107.0	115.6	117.2	117.2	13.6
Vermont	87.8	92.2	95.4	98.0	102.7	107.3	111.8	7.3
Virginia	87.3	90.0	94.4	95.8	101.5	106.7	111.7	7.1
Washington	87.5	88.3	93.1	97.2	99.0	101.2	103.3	5.8
West Virginia	98.0	98.3	100.8	103.8	109.4	114.8	117.1	8.7
Wisconsin	96.4	98.1	99.5	101.7	104.7	106.3	107.0	5.2
Wyoming	90.2	90.2	92.2	96.9	99.8	104.2	104.2	7.5

†Not applicable.

[1]Jurisdiction has only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2005-06 and 2006-07 and "Local Education Agency Universe Survey," 2005-06 and 2006-07.

Table 7. Selected percentiles of index in change of public elementary and secondary school district pupil/teacher ratios, by state: Fall 1995 to fall 199

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**91.8**	**93.9**	**97.0**	**99.4**	**101.4**	**105.3**	**111.3**	**4.3**
Alabama	94.7	96.1	97.2	98.5	100.2	101.4	102.1	3.0
Alaska	96.3	96.3	96.3	100.7	101.1	104.3	106.9	4.8
Arizona	79.4	87.9	93.6	98.8	102.6	105.3	113.2	9.0
Arkansas	90.7	93.0	97.0	99.6	102.2	104.3	107.6	5.2
California	87.3	89.4	92.7	95.6	97.6	99.8	101.2	4.9
Colorado	93.9	95.5	98.2	99.9	101.7	105.5	105.5	3.5
Connecticut	89.4	91.8	94.7	97.2	99.3	101.0	102.0	4.6
Delaware	96.1	98.1	98.7	98.9	99.7	99.7	99.7	0.9
Dist. of Columbia[1]	---	---	---	---	---	---	---	---
Florida	96.0	96.9	99.4	100.8	101.6	103.9	105.0	2.2
Georgia	94.5	95.2	99.1	100.4	104.4	108.9	116.1	5.3
Hawaii[1]	---	---	---	---	---	---	---	---
Idaho	95.4	97.0	98.2	99.6	100.0	100.7	101.0	1.8
Illinois	103.8	106.4	109.6	111.3	114.6	118.2	119.9	5.0
Indiana	87.1	95.5	97.3	99.1	101.3	105.0	109.4	4.0
Iowa	90.6	92.1	95.9	98.0	101.4	105.2	110.3	5.6
Kansas	94.3	96.2	98.3	100.8	103.4	104.9	110.2	5.1
Kentucky	94.7	96.4	98.2	99.8	101.0	104.1	105.5	2.8
Louisiana	91.6	92.4	96.2	100.1	101.8	103.1	105.5	5.6
Maine	92.8	93.5	96.8	99.2	101.0	103.8	106.4	4.2
Maryland	97.2	98.0	98.0	98.9	99.3	101.8	101.9	1.3
Massachusetts	---	---	---	---	---	---	---	---
Michigan	89.7	93.8	94.7	98.4	101.5	105.5	108.8	6.8
Minnesota	41.8	83.4	94.2	98.5	102.7	108.4	113.3	8.5
Mississippi	94.3	95.9	98.5	99.5	101.4	103.2	104.8	2.9
Missouri	93.6	95.9	98.0	100.1	102.1	106.0	111.8	4.1
Montana	85.0	89.2	95.1	98.4	100.8	106.1	109.3	5.7
Nebraska	95.1	96.8	98.9	99.0	101.5	104.9	108.1	2.6
Nevada	98.8	98.8	98.8	98.8	101.1	101.1	102.0	2.2
New Hampshire	86.7	87.9	95.9	101.0	104.1	109.5	118.6	8.2
New Jersey	---	---	---	---	---	---	---	---
New Mexico	93.2	93.7	96.8	99.7	101.2	101.9	103.2	4.4
New York	94.4	96.1	98.1	98.1	100.1	102.6	104.4	2.0
North Carolina	97.0	97.4	98.4	99.7	101.2	102.4	103.4	2.8
North Dakota	87.0	89.8	94.9	98.1	99.9	103.5	106.1	5.0
Ohio	91.4	93.4	96.8	99.2	102.2	104.6	105.7	5.4
Oklahoma	93.4	95.4	98.0	100.1	101.4	104.2	106.6	3.3
Oregon	93.5	93.5	98.2	101.0	105.7	110.5	110.5	7.6
Pennsylvania	94.5	96.2	97.7	99.8	100.8	102.6	103.2	3.1
Rhode Island	89.4	94.1	96.8	100.6	103.2	106.3	108.4	6.3
South Carolina	94.7	95.6	97.1	99.3	101.2	102.2	104.2	4.1
South Dakota	94.6	96.7	100.4	101.5	104.4	109.7	115.5	4.0
Tennessee	---	---	---	---	---	---	---	---
Texas	94.7	95.5	97.5	99.6	101.1	102.3	102.8	3.6
Utah	96.9	97.6	98.6	98.8	102.0	103.0	103.0	3.4
Vermont	85.8	88.5	93.9	100.1	104.3	111.9	116.0	10.4
Virginia	---	---	---	---	---	---	---	---
Washington	94.2	95.3	98.0	99.5	101.3	102.7	103.4	3.2
West Virginia	95.6	96.6	97.9	98.8	100.6	101.9	101.9	2.7
Wisconsin	93.2	95.3	97.3	98.9	100.9	102.8	105.3	3.5
Wyoming	94.2	95.8	97.2	99.7	101.1	103.0	106.1	3.8

---Not available.

[1]Jurisdiction has only one school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1995-96 and 1996-97 and "Local Education Agency Universe Survey," 1995-96 and 1996-97.

Table 8. Standard deviation in pupil/teacher ratio change index for public elementary and secondary school districts, by size of district and locale: 1995-96 through 2005-06

District size and locale	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**1.8**	**2.2**	**2.9**	**4.0**	**6.0**	**9.8**	**14.1**	**3.1**
Less than 300	4.9	5.7	7.3	9.8	13.7	21.7	29.7	6.5
300 to 599	3.6	4.1	5.3	7.3	10.2	16.6	22.6	4.9
600 to 999	2.9	3.4	4.4	6.0	8.6	14.1	19.4	4.2
1000 to 2,400	2.3	2.7	3.6	4.9	7.2	11.5	15.6	3.6
2,500 or more	1.7	2.1	2.8	3.7	5.6	9.0	13.9	2.7
City, large[1]	**1.8**	**2.0**	**2.7**	**3.7**	**5.1**	**13.8**	**13.9**	**2.4**
2,500 or more	**1.8**	**2.0**	**2.7**	**3.7**	**5.1**	**13.8**	**13.9**	**2.4**
City, midsize[2]	1.6	2.1	3.0	4.0	6.1	9.2	11.5	3.0
2,500 or more	**1.6**	**2.1**	**3.0**	**4.0**	**6.1**	**9.2**	**11.5**	**3.1**
City, small[3]	**1.8**	**2.2**	**2.8**	**4.0**	**6.0**	**8.4**	**13.1**	**3.2**
1000 to 2,400	2.3	3.3	4.6	7.0	10.2	15.9	37.4	5.6
2,500 or more	**1.8**	**2.1**	**2.8**	**4.0**	**5.9**	**8.2**	**12.8**	**3.1**
Suburban, large[4]	**1.7**	**2.0**	**2.8**	**3.6**	**5.6**	**8.9**	**15.0**	**2.8**
600 to 999	3.4	3.8	5.2	6.9	8.9	14.8	37.1	3.7
1000 to 2,400	2.4	2.9	3.9	5.6	8.2	12.7	18.9	4.3
2,500 or more	1.6	2.0	2.8	3.5	5.3	8.2	13.6	2.5
Suburban, midsize[5]	**2.1**	**2.3**	**3.0**	**4.0**	**5.2**	**8.1**	**10.1**	**2.2**
1000 to 2,400	2.5	2.6	4.0	4.8	7.1	12.5	15.2	3.2
2,500 or more	2.1	**2.3**	**2.9**	**4.0**	**5.1**	**7.3**	**9.6**	2.2
Suburban, small[6]	**1.7**	**1.8**	**2.5**	**3.8**	**5.7**	**10.0**	**14.8**	**3.2**
1000 to 2,400	2.2	2.9	3.7	5.0	7.0	12.7	17.2	3.3
2,500 or more	1.7	1.7	2.1	3.6	5.7	8.9	14.8	3.5
Town, fringe[7]	**2.1**	**2.4**	**3.1**	**4.0**	**6.2**	**8.9**	**13.8**	**3.1**
600 to 999	3.1	3.7	4.8	6.2	8.6	11.4	22.6	3.7
1000 to 2,400	2.5	2.8	3.4	4.6	6.6	8.8	13.1	3.1
2,500 or more	1.9	2.3	2.9	3.8	5.8	8.8	13.8	2.9
Town, distant[8]	**2.1**	**2.3**	**3.1**	**4.3**	**6.4**	**9.9**	**12.8**	**3.3**
300 to 599	4.0	4.4	6.4	8.0	11.9	18.6	29.6	5.5
600 to 999	2.8	3.3	4.6	6.1	9.7	17.3	20.4	5.2
1000 to 2,400	2.3	2.6	3.3	4.4	6.5	10.1	13.2	3.3
2,500 or more	1.9	2.2	2.9	4.1	5.9	9.2	12.1	3.0
Town, remote[9]	2.1	2.6	3.3	4.7	6.9	11.1	15.5	3.6
300 to 599	3.3	4.2	5.4	7.0	10.3	16.0	23.2	4.9
600 to 999	2.9	3.1	4.2	6.0	8.3	11.9	13.8	4.1
1000 to 2,400	2.5	2.9	3.7	4.8	6.9	10.3	15.3	3.2
2,500 or more	2.0	2.2	2.9	4.2	6.2	10.1	15.5	3.3
Rural, fringe[12]	2.1	2.5	3.3	4.7	6.7	11.0	15.2	3.5
300 to 599	4.1	4.7	5.9	7.8	11.2	20.9	30.5	5.4
600 to 999	2.7	3.5	4.7	6.4	9.1	15.0	23.7	4.5
1000 to 2,400	2.2	2.6	3.5	4.8	7.3	13.0	18.1	3.8
2,500 or more	2.0	2.4	3.1	4.4	6.0	9.4	12.6	2.9
Rural, distant[13]	**2.3**	**2.7**	**3.7**	**5.1**	**7.4**	**11.3**	**15.6**	**3.8**
Less than 300	5.0	5.8	7.6	10.1	13.8	21.3	28.0	6.2
300 to 599	3.5	4.0	5.2	7.2	9.7	14.3	18.7	4.5
600 to 999	2.7	3.2	4.2	5.4	7.9	13.4	17.7	3.7
1000 to 2,400	2.2	2.7	3.5	4.7	6.6	10.2	13.1	3.1
2,500 or more	2.1	2.5	3.3	4.6	6.9	9.5	13.5	3.6
Rural, remote[14]	**2.7**	**3.2**	**4.3**	**6.3**	**9.5**	**14.8**	**19.1**	**5.1**
Less than 300	4.8	5.5	7.0	9.5	13.1	19.4	28.4	6.1
300 to 599	3.4	4.1	5.2	7.1	10.0	16.1	20.1	4.9
600 to 999	3.1	3.4	4.4	5.9	8.8	14.7	19.7	4.4
1000 to 2,400	2.6	3.0	3.7	5.3	8.0	12.6	17.9	4.3
2,500 or more	1.9	2.0	3.0	4.2	5.7	9.1	12.7	2.8

[1]Located inside an urbanized area and inside a principal city with a population of at least 250,000.
[2]Located inside an urbanized area and inside a principal city with a population of at least 100,000, but less than 250,000.
[3]Located inside an urbanized area and inside a principal city with a population less than 100,000.
[4]Located inside an urbanized area and outside a principal city with a population of 250,000 or more.
[5]Located inside an urbanized area and outside a principal city with a population of at least 100,000, but less than 250,000.
[6]Located inside an urbanized area and outside a principal city with a population less than 100,000.
[7]Located inside an urban cluster that is 10 miles or less from an urbanized area.
[8]Located inside an urban cluster that is more than 10, but less than or equal to 35 miles from an urbanized area.
[9]Located inside an urban cluster that is more than 35 miles from an urbanized area.
[10]Located outside any urbanized area or urban cluster and is 5 miles or less from an urbanized area or 2 miles or less from an urban cluster.
[11]Located outside any urbanized area or urban cluster and is more than 5 miles and less than or equal to 25 miles from an urbanized area, or more than 2 miles and less than or equal to 10 miles from an urban cluster.
[12]Located outside any urbanized area or urban cluster and more than 25 miles from an urbanized area or more than 10 miles from a

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. Urbanized areas are densely settled areas containing at least 50,000 people. Urban clusters are densely settled areas with populations of 2,500 to 49,999.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Local Education Agency Universe Survey," 1994-95 through 2006-07.

Table 9. Percentiles of averaged freshman graduation rates (AFGR) for public schools, by state: 2004-0

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**52.7**	**56.9**	**67.8**	**78.7**	**88.3**	**95.3**	**98.7**	**20.6**
Alabama	46.4	53.0	62.0	64.6	72.7	81.3	88.6	10.7
Alaska	43.1	53.6	66.9	68.4	72.7	78.2	78.2	5.8
Arizona	61.5	65.1	69.9	78.9	81.4	89.9	98.4	11.5
Arkansas	62.2	66.8	69.6	78.4	84.7	92.1	97.6	15.1
California	52.7	52.7	68.7	79.1	89.0	98.1	103.8	20.3
Colorado	54.1	56.8	72.5	79.5	88.5	92.4	93.5	16.0
Connecticut	59.2	61.7	74.1	86.2	92.5	96.3	97.0	18.4
Delaware	53.4	62.1	62.3	67.0	77.2	81.2	90.8	14.9
Dist. of Columbia[1]	†	†	†	72.0	†	†	†	†
Florida	55.4	55.4	59.8	66.2	70.8	75.4	77.8	11.0
Georgia	48.9	49.6	55.3	62.5	71.9	76.0	76.8	16.5
Hawaii[1]	†	†	†	75.1	†	†	†	†
Idaho	64.8	68.2	78.2	83.1	85.6	93.1	93.9	7.4
Illinois	54.6	54.6	70.1	86.5	94.9	98.1	100.4	24.8
Indiana	54.5	61.2	68.5	76.7	83.2	90.2	93.7	14.6
Iowa	69.1	71.4	82.2	89.2	95.3	102.9	108.6	13.1
Kansas	65.1	65.4	75.2	83.5	92.0	98.1	99.6	16.8
Kentucky	64.5	67.9	69.1	76.3	81.9	88.0	92.3	12.7
Louisiana	50.3	52.8	57.7	65.7	70.4	74.0	76.0	12.7
Maine	65.4	71.0	76.2	83.1	88.8	92.0	95.2	12.6
Maryland	52.8	74.4	76.0	84.4	85.6	90.3	90.8	9.6
Massachusetts	55.8	61.5	68.3	81.4	89.4	94.8	96.0	21.0
Michigan	43.9	52.6	71.9	82.0	89.8	94.7	96.3	17.9
Minnesota	64.7	71.0	80.9	87.3	92.3	96.3	101.9	11.4
Mississippi	48.0	50.9	58.3	64.7	69.3	75.2	76.1	11.1
Missouri	58.6	67.2	76.8	84.6	90.1	95.7	100.5	13.3
Montana	68.6	70.2	79.7	82.2	88.2	93.0	98.5	8.5
Nebraska	67.7	67.7	86.3	92.3	98.7	103.1	108.8	12.4
Nevada	54.0	54.0	54.0	54.0	55.1	66.1	69.3	1.0
New Hampshire	71.1	72.8	78.1	82.2	89.2	96.2	97.7	11.1
New Jersey	64.4	68.7	83.4	92.5	97.7	101.6	104.9	14.3
New Mexico	57.1	58.4	61.2	61.5	70.9	73.8	79.4	9.8
New York	46.0	46.0	46.0	76.7	89.0	95.2	97.1	43.1
North Carolina	63.6	66.1	68.4	74.1	78.0	83.9	83.9	9.6
North Dakota	73.1	79.4	84.6	87.9	92.9	98.8	102.6	8.3
Ohio	52.7	60.5	76.6	86.3	92.7	97.3	100.7	16.1
Oklahoma	60.8	62.3	73.6	80.5	87.1	93.8	97.1	13.5
Oregon	59.1	64.1	67.8	75.9	85.9	87.3	95.0	18.1
Pennsylvania	61.1	61.1	79.1	87.4	93.7	97.8	99.7	14.6
Rhode Island	61.0	62.1	66.7	81.5	87.1	94.3	101.9	20.3
South Carolina	49.5	51.2	55.3	61.9	65.3	70.1	73.7	9.9
South Dakota	70.6	70.6	81.5	84.9	89.5	97.5	103.9	8.0
Tennessee	59.8	61.8	64.0	70.6	75.8	82.3	87.9	11.8
Texas	56.2	58.8	66.2	76.4	84.8	90.4	92.4	18.6
Utah	68.4	73.3	81.5	86.2	92.6	95.9	95.9	11.1
Vermont	73.7	75.9	81.2	88.8	98.0	104.3	108.8	16.7
Virginia	59.3	68.7	74.8	81.4	89.7	92.4	97.8	14.9
Washington	53.6	62.0	70.3	77.5	84.2	91.6	95.3	13.9
West Virginia	66.2	72.0	75.4	78.4	81.8	85.0	86.6	6.4
Wisconsin	50.6	76.5	84.2	92.8	97.6	101.1	103.7	13.4
Wyoming	68.7	69.0	73.6	75.9	82.1	90.9	93.2	8.5

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 10. Percentiles of averaged freshman graduation rates (AFGR) for public schools, by state: 1994-9

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**49.5**	**55.3**	**64.9**	**75.5**	**86.0**	**93.9**	**98.4**	**21.1**
Alabama	53.9	54.1	58.8	66.7	69.3	76.4	84.4	10.5
Alaska	60.4	60.4	67.8	72.4	76.1	85.2	85.6	8.4
Arizona	54.8	59.1	60.5	68.5	76.4	79.8	82.6	15.9
Arkansas	56.2	61.8	68.3	75.0	81.3	89.5	95.1	12.9
California	49.5	49.5	61.0	69.7	78.1	87.1	93.9	17.1
Colorado	61.2	61.2	70.2	76.1	84.8	94.1	98.7	14.6
Connecticut	49.7	55.0	72.4	82.8	91.1	96.5	100.5	18.6
Delaware	59.5	60.9	61.7	64.4	70.3	77.9	83.7	8.6
Dist. of Columbia[1]	†	†	†	55.8	†	†	†	†
Florida	55.6	57.3	62.2	63.5	65.3	70.3	72.2	3.0
Georgia	47.2	51.4	58.0	64.9	71.9	75.8	81.8	13.9
Hawaii[1]	†	†	†	73.9	†	†	†	†
Idaho	68.0	69.5	76.7	83.1	85.6	90.5	96.3	8.9
Illinois	47.0	47.0	69.0	83.9	91.0	96.2	97.4	22.0
Indiana	55.3	63.3	70.6	78.6	85.7	92.3	96.9	15.2
Iowa	65.7	71.3	78.0	87.8	94.2	100.8	107.2	16.1
Kansas	60.9	64.2	72.6	82.6	90.4	98.1	104.2	17.8
Kentucky	61.9	66.9	70.8	73.3	78.8	83.5	86.3	8.0
Louisiana	55.3	55.3	56.8	63.6	67.8	74.1	109.2	11.0
Maine	65.6	68.8	74.2	81.6	89.8	95.9	99.0	15.6
Maryland	46.4	74.6	78.2	83.5	89.5	89.9	94.2	11.2
Massachusetts	56.6	59.7	69.6	81.1	88.9	94.8	97.4	19.3
Michigan	43.0	49.0	66.2	79.1	87.4	94.0	98.9	21.2
Minnesota	69.2	72.8	82.8	90.3	95.5	104.5	111.9	12.7
Mississippi	48.8	53.9	56.5	63.1	68.7	72.4	75.8	12.3
Missouri	47.0	67.9	73.8	80.9	84.8	92.8	100.0	11.0
Montana	74.0	77.1	82.9	85.9	93.1	105.0	106.3	10.3
Nebraska	65.9	65.9	81.2	88.9	96.1	103.5	108.0	14.9
Nevada	64.9	64.9	64.9	64.9	65.0	72.5	77.4	0.2
New Hampshire	66.7	69.3	74.9	81.6	88.4	94.1	101.0	13.5
New Jersey	52.0	65.5	81.4	90.3	95.9	100.9	103.4	14.6
New Mexico	52.1	53.9	61.6	63.6	66.5	76.4	81.4	4.9
New York	40.8	40.8	40.8	79.2	89.3	96.0	98.4	48.6
North Carolina	60.3	62.3	67.5	71.9	75.9	85.0	156.4	8.4
North Dakota	72.4	80.2	86.0	87.7	94.2	101.6	107.1	8.1
Ohio	44.5	58.3	71.5	82.9	91.0	96.2	101.2	19.5
Oklahoma	59.2	67.4	71.7	78.8	88.8	97.6	105.5	17.1
Oregon	60.3	60.3	66.2	71.1	77.8	90.1	95.3	11.6
Pennsylvania	53.5	61.5	77.9	86.2	92.3	96.1	99.3	14.5
Rhode Island	53.7	53.7	71.7	80.4	84.3	88.2	94.5	12.5
South Carolina	48.8	54.7	58.4	63.2	66.8	72.5	74.4	8.4
South Dakota	67.6	67.6	83.3	94.0	99.6	110.7	118.8	16.3
Tennessee	52.5	56.3	60.4	68.4	74.1	85.0	85.8	13.7
Texas	49.3	50.9	60.8	69.1	78.0	84.3	92.5	17.2
Utah	62.2	67.6	77.3	80.0	82.6	87.5	93.4	5.3
Vermont	71.2	71.9	76.8	87.4	91.7	97.7	107.9	14.9
Virginia	58.4	65.2	70.2	80.1	83.7	89.4	89.5	13.5
Washington	58.6	66.5	72.8	79.4	86.8	93.0	96.5	14.0
West Virginia	64.9	68.7	71.7	76.0	80.1	84.4	88.0	8.4
Wisconsin	47.4	70.0	82.0	89.0	96.1	100.7	104.9	14.1
Wyoming	68.0	68.3	74.5	80.1	85.6	92.3	96.0	11.0

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 11. Median of averaged freshman graduation rates (AFGR) for public schools, by locale and state: 1994-95 and 2004-05

State	1994-95					2004-05				
	Total	City	Suburban	Town	Rural	Total	City	Suburban	Town	Rural
Total	**75.5**	**64.9**	**79.7**	**77.7**	**79.1**	**78.7**	**68.5**	**83.3**	**79.8**	**80.6**
Alabama	66.7	55.8	68.3	63.6	67.2	64.6	63.0	66.2	68.4	69.9
Alaska	72.4	72.4	68.6	85.2	76.1	68.4	68.4	149.1	78.2	66.9
Arizona	68.5	67.9	76.9	68.0	67.2	78.9	78.9	80.1	73.9	68.2
Arkansas	75.0	71.4	61.8	76.7	78.6	78.4	73.6	73.0	81.6	80.3
California	69.7	66.2	73.5	70.1	74.3	79.1	75.5	82.1	79.5	82.0
Colorado	76.1	71.4	76.1	75.0	88.1	79.5	76.3	77.9	77.8	84.9
Connecticut	82.8	78.6	82.8	82.6	89.3	86.2	79.3	88.5	81.4	89.0
Delaware	64.4	62.6	61.7	70.3	69.0	67.0	62.8	62.4	75.3	69.8
Dist. of Columbia[1]	55.8	55.8	†	†	†	72.0	72.0	†	†	†
Florida	63.5	64.4	63.5	56.5	65.5	66.2	59.4	66.6	64.8	66.7
Georgia	64.9	57.4	71.9	64.2	63.2	62.5	52.8	71.9	57.5	61.4
Hawaii[1]	73.9	†	73.9	†	†	75.1	†	75.1	†	†
Idaho	83.1	83.1	84.3	76.7	82.9	83.1	83.1	85.6	81.1	79.9
Illinois	83.9	47.0	86.9	84.8	88.3	86.5	54.6	91.0	85.1	87.0
Indiana	78.6	67.7	84.3	79.3	83.1	76.7	67.8	82.4	77.0	80.4
Iowa	87.8	74.6	90.2	87.2	94.5	89.2	82.5	94.7	88.4	92.4
Kansas	82.6	72.6	87.2	79.6	89.3	83.5	65.4	87.6	81.0	87.8
Kentucky	73.3	70.6	71.4	76.1	73.4	76.3	76.1	69.1	77.5	76.5
Louisiana	63.6	64.4	55.6	59.6	63.9	65.7	59.8	69.5	67.7	66.8
Maine	81.6	77.3	85.9	82.3	81.6	83.1	83.0	90.1	82.6	83.5
Maryland	83.5	46.4	85.4	89.9	78.4	84.4	52.8	85.5	83.0	79.8
Massachusetts	81.1	60.5	83.7	81.2	81.8	81.4	62.5	83.3	85.5	84.4
Michigan	79.1	56.6	81.0	79.9	81.7	82.0	65.5	85.6	81.2	82.6
Minnesota	90.3	84.8	89.8	91.6	91.3	87.3	84.5	86.7	91.3	86.5
Mississippi	63.1	56.4	67.6	60.7	65.3	64.7	60.3	67.2	60.6	66.2
Missouri	80.9	73.5	82.0	81.7	84.7	84.6	81.5	85.6	83.8	84.3
Montana	85.9	82.9	†	89.1	92.3	82.2	80.3	†	83.1	83.3
Nebraska	88.9	81.2	77.4	90.7	95.7	92.3	87.3	95.0	92.9	96.0
Nevada	64.9	65.0	64.9	72.5	70.7	54.0	55.1	54.0	59.9	69.3
New Hampshire	81.6	84.1	85.0	79.6	75.9	82.2	80.7	84.9	83.1	82.2
New Jersey	90.3	68.9	91.2	91.7	81.8	92.5	80.0	93.6	87.7	86.9
New Mexico	63.6	63.6	74.9	66.4	61.7	61.5	61.2	66.3	69.9	70.9
New York	79.2	40.8	87.9	78.8	83.6	76.7	46.0	88.9	76.4	80.3
North Carolina	71.9	75.1	71.4	68.6	69.9	74.1	75.9	71.3	69.8	73.0
North Dakota	87.7	87.7	72.4	87.1	94.2	87.9	92.8	79.9	86.4	89.4
Ohio	82.9	52.9	85.8	83.3	84.7	86.3	55.5	89.5	86.1	86.8
Oklahoma	78.8	67.8	79.5	78.5	86.7	80.5	60.8	83.8	80.5	85.1
Oregon	71.1	66.2	73.9	71.4	74.4	75.9	75.9	85.5	73.8	73.2
Pennsylvania	86.2	53.5	90.0	85.7	86.4	87.4	61.1	91.3	84.9	88.1
Rhode Island	80.4	82.4	77.7	80.4	84.7	81.5	81.5	81.1	95.2	87.3
South Carolina	63.2	55.9	66.8	63.8	63.6	61.9	55.3	62.7	60.1	60.3
South Dakota	94.0	95.2	†	91.1	96.1	84.9	81.5	†	86.2	88.7
Tennessee	68.4	56.3	74.1	69.5	71.6	70.6	64.0	75.8	72.6	72.1
Texas	69.1	63.1	68.9	71.1	78.7	76.4	68.7	80.7	76.5	81.5
Utah	80.0	81.4	79.1	83.3	93.4	86.2	84.9	86.2	86.7	90.0
Vermont	87.4	107.9	88.0	87.4	85.4	88.8	83.2	98.0	88.8	88.8
Virginia	80.1	69.9	89.2	75.4	75.8	81.4	71.8	89.7	78.6	81.7
Washington	79.4	76.0	80.6	77.6	79.3	77.5	76.8	79.4	75.2	77.5
West Virginia	76.0	71.4	73.4	79.1	75.7	78.4	81.1	75.4	79.3	76.7
Wisconsin	89.0	81.0	91.1	91.1	93.3	92.8	82.8	94.7	94.5	93.2
Wyoming	80.1	80.1	†	76.2	86.3	75.9	73.6	†	78.8	84.0

†Not applicable. No districts in state with this locality designation.

[1]Jurisdiction has only one school district.

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 12. Percentiles of migration-adjusted averaged freshman graduation rates (MAFGR) for public schools by state: 2004-05

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**52.0**	**56.7**	**65.8**	**76.5**	**86.1**	**93.8**	**98.4**	**20.3**
Alabama	53.4	55.3	62.7	65.8	71.3	79.2	84.2	8.6
Alaska	38.1	56.8	65.9	69.1	71.8	72.2	79.3	5.9
Arizona	53.2	58.5	65.3	74.6	81.5	85.6	91.1	16.2
Arkansas	60.8	64.4	68.9	75.4	82.0	89.7	93.1	13.1
California	52.0	52.0	64.3	75.4	83.0	94.2	100.1	18.7
Colorado	54.1	55.1	70.5	79.5	85.3	86.5	93.8	14.7
Connecticut	59.4	61.4	75.2	84.7	89.2	92.3	94.2	14.1
Delaware	53.6	62.0	63.1	66.8	76.2	77.7	78.8	13.1
Dist. of Columbia[1]	†	†	†	79.6	†	†	†	†
Florida	54.9	55.0	56.8	61.5	64.7	69.4	72.8	8.0
Georgia	48.2	50.1	54.3	59.0	65.4	72.5	72.5	11.2
Hawaii[1]	†	†	†	75.4	†	†	†	†
Idaho	59.5	68.7	75.6	82.5	85.3	90.2	97.5	9.7
Illinois	55.8	55.8	69.8	82.0	89.0	94.9	98.5	19.2
Indiana	52.6	58.7	67.7	75.4	80.6	86.9	90.8	12.9
Iowa	71.6	73.4	82.9	88.3	99.7	106.7	113.4	16.8
Kansas	66.1	66.1	75.9	85.3	92.4	96.7	103.1	16.5
Kentucky	64.7	67.2	68.5	74.4	80.4	84.6	89.4	11.9
Louisiana	53.5	58.4	61.2	66.5	70.3	73.6	77.8	9.1
Maine	65.5	72.8	80.2	87.1	90.9	97.2	100.6	10.7
Maryland	57.9	73.8	75.8	84.1	84.9	85.6	86.9	9.1
Massachusetts	58.7	64.4	70.1	80.5	87.7	92.2	94.1	17.6
Michigan	50.0	56.9	70.4	81.1	88.3	94.4	97.8	17.9
Minnesota	65.9	74.9	81.1	87.9	93.9	102.1	104.4	12.8
Mississippi	48.5	52.9	58.0	63.4	69.1	73.4	75.9	11.1
Missouri	61.3	67.3	76.0	82.2	90.2	95.8	104.1	14.2
Montana	66.3	72.9	80.8	82.8	90.6	99.2	110.4	9.8
Nebraska	66.8	66.8	84.8	92.2	97.8	106.9	113.4	13.0
Nevada	47.0	47.0	47.0	47.0	50.9	67.8	68.7	4.0
New Hampshire	69.2	70.9	77.9	81.0	87.0	94.2	96.6	9.1
New Jersey	65.1	69.0	78.6	86.8	93.5	98.6	102.2	15.0
New Mexico	57.8	57.8	57.8	63.5	71.5	79.7	86.6	13.7
New York	48.8	48.8	48.8	79.0	88.1	93.1	96.3	39.3
North Carolina	59.9	59.9	67.3	70.9	73.9	74.9	76.1	6.7
North Dakota	75.3	80.2	90.4	93.4	96.4	109.8	119.7	6.0
Ohio	58.1	62.4	76.3	86.0	92.0	97.4	100.4	15.8
Oklahoma	61.6	63.3	73.4	80.6	86.9	93.8	101.6	13.5
Oregon	60.0	64.8	70.0	75.5	84.2	89.8	91.6	14.2
Pennsylvania	65.7	65.7	79.9	87.1	93.0	97.5	99.3	13.0
Rhode Island	61.8	66.5	68.0	83.6	86.8	95.9	97.9	18.8
South Carolina	48.9	51.5	56.1	58.7	61.3	67.8	70.5	5.2
South Dakota	73.2	73.9	80.6	90.2	95.6	109.0	114.2	14.9
Tennessee	56.3	59.9	62.0	68.1	73.1	78.8	84.6	11.0
Texas	57.2	58.4	64.5	71.9	78.9	83.7	88.8	14.4
Utah	71.9	75.6	77.3	83.7	88.4	92.9	97.2	11.0
Vermont	75.6	76.6	82.8	87.9	100.8	108.8	109.0	18.1
Virginia	64.1	68.8	74.3	79.5	84.6	87.7	89.2	10.3
Washington	56.6	62.8	69.5	75.9	83.3	90.7	94.2	13.8
West Virginia	68.9	70.7	74.9	80.0	82.7	88.9	93.1	7.8
Wisconsin	53.1	75.9	85.3	92.7	99.2	105.8	111.8	13.9
Wyoming	72.7	74.2	76.5	82.0	87.1	96.1	98.3	10.6

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The enrollment adjusted averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time, adjusted by change in school enrollment. The adjustment factor uses annual changes in aggregate student enrollment data to estimate the change in the size of the freshman cohort receiving diplomas 4 year later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 13. Percentiles of migration-adjusted averaged freshman graduation rates (MAFGR) for public schools by state: 1994-95

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**47.6**	**53.2**	**61.7**	**71.5**	**81.4**	**88.9**	**93.5**	**19.7**
Alabama	54.3	54.8	57.4	64.5	69.7	75.2	80.8	12.4
Alaska	55.7	56.2	62.7	67.8	69.9	71.2	84.0	7.2
Arizona	47.1	51.8	54.4	61.6	67.1	72.1	74.6	12.7
Arkansas	58.5	62.2	66.2	73.6	80.4	88.0	93.3	14.1
California	50.0	50.0	58.2	65.6	74.5	82.5	87.2	16.4
Colorado	58.8	59.3	65.9	71.4	77.4	83.8	84.0	11.5
Connecticut	48.9	53.6	69.7	78.6	85.5	91.4	94.9	15.8
Delaware	35.3	57.4	58.6	61.6	66.4	72.9	81.2	7.8
Dist. of Columbia[1]	†	†	†	57.6	†	†	†	†
Florida	49.6	53.0	54.2	57.6	59.4	63.7	65.7	5.2
Georgia	47.0	49.0	55.8	60.1	64.8	70.2	72.7	9.1
Hawaii[1]	†	†	†	70.5	†	†	†	†
Idaho	64.4	65.2	72.9	76.4	81.1	90.4	96.9	8.1
Illinois	47.6	47.6	68.5	78.0	84.9	90.8	93.2	16.4
Indiana	59.9	64.8	70.8	76.6	84.2	88.6	90.4	13.4
Iowa	66.1	69.9	73.3	83.0	90.2	97.4	102.8	16.9
Kansas	60.9	66.1	72.6	77.5	84.1	93.5	99.7	11.5
Kentucky	62.7	66.1	69.7	72.5	78.0	81.8	84.1	8.3
Louisiana	53.1	53.8	57.7	64.2	67.9	74.3	106.7	10.3
Maine	63.1	68.2	72.6	79.5	87.9	96.3	100.3	15.4
Maryland	45.0	72.5	74.7	76.0	81.8	82.0	82.4	7.1
Massachusetts	50.1	55.5	66.0	76.3	82.2	87.6	93.7	16.2
Michigan	43.6	48.1	65.5	75.7	83.3	90.9	95.9	17.8
Minnesota	53.0	56.9	71.7	79.4	87.4	94.5	98.0	15.7
Mississippi	49.0	53.2	57.8	61.8	68.1	73.1	75.6	10.3
Missouri	47.9	65.6	70.8	75.0	82.0	88.5	94.6	11.2
Montana	25.2	39.9	71.4	77.1	80.7	95.6	96.9	9.3
Nebraska	64.9	64.9	77.2	86.1	91.3	99.7	104.4	14.0
Nevada	53.5	53.5	53.5	53.5	57.2	66.2	67.2	3.6
New Hampshire	60.2	65.8	71.0	76.0	81.5	90.8	92.0	10.5
New Jersey	49.5	63.3	77.0	84.8	91.2	96.3	100.3	14.2
New Mexico	48.5	49.0	58.8	64.5	64.7	71.4	81.4	5.9
New York	38.6	38.6	38.6	76.5	85.8	92.0	96.1	47.1
North Carolina	55.5	59.2	63.7	66.0	69.4	71.9	73.7	5.6
North Dakota	67.0	76.7	82.1	88.0	91.5	102.2	108.7	9.3
Ohio	43.6	57.6	71.2	79.2	86.9	92.6	97.3	15.7
Oklahoma	60.0	64.6	70.4	75.3	83.8	92.8	100.7	13.4
Oregon	51.7	58.4	61.5	66.5	72.2	80.5	85.7	10.8
Pennsylvania	49.9	60.0	75.3	82.2	87.9	91.8	95.0	12.7
Rhode Island	48.3	48.3	69.2	78.1	83.1	86.6	89.0	13.9
South Carolina	51.2	53.8	57.6	62.1	65.0	67.8	72.4	7.4
South Dakota	64.7	64.7	79.4	87.5	95.9	103.1	109.7	16.6
Tennessee	51.1	54.8	58.9	64.8	72.2	76.7	81.6	13.3
Texas	47.6	49.9	57.9	64.6	71.5	77.7	84.4	13.6
Utah	60.3	68.4	70.1	76.7	77.9	80.4	86.9	7.8
Vermont	66.3	69.0	72.3	81.0	85.9	95.0	101.9	13.6
Virginia	58.7	61.7	67.3	74.2	82.7	85.2	85.2	15.4
Washington	56.2	61.1	67.8	72.4	79.4	87.6	89.3	11.6
West Virginia	66.8	70.4	76.2	79.3	83.2	89.6	90.8	7.0
Wisconsin	45.8	64.9	77.3	84.4	89.8	95.0	99.4	12.4
Wyoming	70.0	70.9	74.9	77.4	83.1	89.5	92.5	8.3

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The enrollment adjusted averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time, adjusted by change in school enrollment. The adjustment factor uses annual changes in aggregate student enrollment data to estimate the change in the size of the freshman cohort receiving diplomas 4 year later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2004-05 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 14. Median of migration-adjusted averaged freshman graduation rates (MAFGR) for public schools, by locale and state: 1994-95 and 2004-05

State	1994-95					2004-05				
	Total	City	Suburban	Town	Rural	Total	City	Suburban	Town	Rural
Total	**71.5**	**62.7**	**74.8**	**75.0**	**75.4**	**76.5**	**67.5**	**79.1**	**80.1**	**79.7**
Alabama	64.5	57.4	69.1	62.3	67.2	65.8	63.9	65.8	64.4	68.5
Alaska	67.8	67.8	63.5	69.9	70.0	69.1	69.1	36.3	71.8	69.8
Arizona	61.6	61.1	67.6	59.5	62.1	74.6	73.7	76.1	68.3	64.3
Arkansas	73.6	74.0	65.0	75.4	74.9	75.4	72.9	69.7	77.2	78.0
California	65.6	62.7	68.1	65.5	71.3	75.4	69.4	77.1	77.8	81.3
Colorado	71.4	67.9	71.4	69.2	74.9	79.5	74.9	78.1	77.4	82.9
Connecticut	78.6	77.8	80.3	76.2	80.1	84.7	75.3	85.5	78.7	84.8
Delaware	61.6	61.6	59.3	66.4	65.5	66.8	66.8	63.9	73.8	67.7
Dist. of Columbia[1]	57.6	57.6	†	†	†	79.6	79.6	†	†	†
Florida	57.6	54.2	58.7	52.4	57.3	61.5	59.1	61.5	62.4	62.6
Georgia	60.1	57.5	63.8	62.6	56.8	59.0	54.3	61.8	57.0	56.1
Hawaii[1]	70.5	†	70.5	†	†	75.4	†	75.4	†	†
Idaho	76.4	76.4	76.3	74.4	78.6	82.5	85.3	75.6	81.1	81.2
Illinois	78.0	47.6	79.1	80.9	84.5	82.0	55.8	84.2	86.2	86.6
Indiana	76.6	69.3	79.7	79.6	81.3	75.4	65.2	77.5	76.0	79.7
Iowa	83.0	73.2	77.6	84.4	89.9	88.3	82.7	92.7	88.2	97.4
Kansas	77.5	75.1	83.8	77.0	83.3	85.3	66.7	89.9	81.9	85.9
Kentucky	72.5	68.8	69.8	75.6	73.8	74.4	74.0	67.2	76.5	76.5
Louisiana	64.2	65.8	57.1	60.2	64.0	66.5	66.5	68.0	69.2	67.5
Maine	79.5	72.8	83.9	79.9	79.5	87.1	87.3	90.9	85.6	86.9
Maryland	76.0	45.0	78.0	89.6	73.8	84.1	57.9	84.1	79.9	82.4
Massachusetts	76.3	60.2	77.8	78.4	74.9	80.5	66.4	80.8	82.5	82.2
Michigan	75.7	58.0	76.9	76.7	79.6	81.1	66.6	80.5	82.9	85.1
Minnesota	79.4	60.2	76.8	86.0	84.4	87.9	86.2	87.0	93.2	90.2
Mississippi	61.8	57.8	61.8	61.1	63.1	63.4	61.3	56.5	63.2	65.4
Missouri	75.0	73.3	72.8	77.2	79.5	82.2	82.8	81.0	83.2	82.8
Montana	77.1	77.1	†	76.8	76.4	82.8	82.2	†	83.2	89.3
Nebraska	86.1	77.2	81.4	87.3	90.8	92.2	86.3	93.2	91.5	99.9
Nevada	53.5	57.2	53.5	66.4	65.2	47.0	50.9	47.0	62.9	68.7
New Hampshire	76.0	79.7	77.1	78.9	71.4	81.0	79.9	85.7	84.4	80.2
New Jersey	84.8	69.3	86.1	84.7	79.6	86.8	79.5	87.5	81.9	82.7
New Mexico	64.5	64.5	69.5	62.7	59.8	63.5	57.8	70.7	72.3	67.7
New York	76.5	38.6	84.9	76.1	79.8	79.0	48.8	86.9	79.0	82.3
North Carolina	66.0	66.0	67.4	63.5	65.6	70.9	73.0	68.7	69.9	69.5
North Dakota	88.0	83.2	67.0	88.2	91.4	93.4	93.4	75.3	90.6	97.8
Ohio	79.2	55.3	80.1	80.3	82.1	86.0	59.9	86.8	87.9	87.4
Oklahoma	75.3	64.6	75.8	75.3	81.5	80.6	63.3	85.7	82.0	84.8
Oregon	66.5	61.5	66.5	69.0	69.0	75.5	75.5	82.5	74.5	82.1
Pennsylvania	82.2	49.9	83.7	82.6	84.9	87.1	65.7	89.6	86.0	88.2
Rhode Island	78.1	80.7	75.3	78.1	79.4	83.6	80.9	83.6	95.9	86.3
South Carolina	62.1	55.9	62.5	63.0	62.1	58.7	55.5	58.8	58.6	57.9
South Dakota	87.5	95.9	†	86.2	90.1	90.2	80.6	†	90.9	96.4
Tennessee	64.8	54.8	73.9	64.1	68.2	68.1	62.0	73.1	68.2	70.5
Texas	64.6	60.8	64.1	69.1	71.7	71.9	66.4	72.4	75.8	78.2
Utah	76.7	73.6	74.8	77.1	86.9	83.7	82.5	84.5	80.7	92.8
Vermont	81.0	101.9	84.4	82.6	80.4	87.9	85.0	100.8	89.7	87.3
Virginia	74.2	65.6	77.6	73.6	73.2	79.5	73.3	82.4	80.5	79.7
Washington	72.4	71.8	73.2	72.7	71.7	75.9	74.5	76.0	72.9	79.6
West Virginia	79.3	72.7	77.3	82.2	79.3	80.0	82.5	77.8	81.4	74.9
Wisconsin	84.4	77.3	85.6	86.3	88.9	92.7	83.2	91.6	97.3	96.5
Wyoming	77.4	77.5	†	75.1	85.9	82.0	76.5	†	83.3	82.6

†Not applicable. No districts in state with this locality designation.

[1]Jurisdiction has only one school district.

NOTE: The enrollment adjusted averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time, adjusted by change in school enrollment. The adjustment factor uses annual changes in aggregate student enrollment data to estimate the change in the size of the freshman cohort receiving diplomas 4 years later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 15. Standard deviation in averaged freshman graduation rates (AFGR) for public school districts by percentile and state: 1994-95 through 2004-05

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**1.8**	**2.2**	**3.0**	**4.3**	**6.0**	**8.7**	**11.9**	**3.0**
Alabama	2.4	3.0	3.3	4.5	5.3	6.9	8.0	2.0
Alaska	2.0	2.0	2.0	3.5	5.9	15.2	22.8	3.8
Arizona	4.0	4.0	5.8	7.3	8.5	17.3	19.3	2.7
Arkansas	2.4	3.1	4.1	6.0	8.6	11.2	14.5	4.5
California	1.8	1.8	2.7	4.0	6.0	9.4	14.4	3.3
Colorado	1.7	2.5	2.8	3.5	5.0	7.0	10.6	2.2
Connecticut	2.5	2.6	3.3	4.1	5.3	8.7	19.9	2.1
Delaware	1.9	1.9	2.7	3.4	7.5	8.3	9.8	4.8
Dist. of Columbia[1]	†	†	†	7.1	†	†	†	†
Florida	2.1	2.1	2.6	3.5	3.9	5.5	7.4	1.4
Georgia	1.8	1.8	2.7	3.5	4.8	6.1	7.2	2.1
Hawaii[1]	†	†	†	2.5	†	†	†	†
Idaho	2.3	2.3	3.0	4.0	5.5	7.3	10.1	2.5
Illinois	2.3	2.5	2.7	3.9	5.4	7.8	9.8	2.7
Indiana	1.9	2.5	3.5	4.3	5.6	7.3	8.3	2.2
Iowa	2.8	2.8	3.8	5.3	7.3	9.7	12.6	3.5
Kansas	1.6	1.6	4.0	5.0	7.1	10.0	13.7	3.2
Kentucky	2.7	3.0	3.1	4.4	5.7	7.3	8.5	2.6
Louisiana	2.1	2.4	3.1	4.1	5.3	6.8	15.1	2.3
Maine	3.6	4.1	4.3	5.5	7.3	12.0	18.7	3.0
Maryland	1.2	1.2	1.5	2.0	2.4	3.7	3.7	0.9
Massachusetts	2.9	3.3	4.0	5.0	6.1	7.8	9.3	2.1
Michigan	2.2	2.4	3.6	4.9	6.7	9.2	12.0	3.0
Minnesota	2.9	3.2	4.0	4.9	6.8	9.3	13.6	2.8
Mississippi	2.3	2.7	3.3	4.1	5.5	7.4	7.9	2.2
Missouri	2.9	3.1	3.5	4.9	6.8	8.7	10.9	3.3
Montana	1.4	2.6	3.7	4.6	7.1	11.0	14.2	3.4
Nebraska	3.1	3.1	3.4	4.9	6.8	9.6	11.8	3.4
Nevada	4.0	5.4	5.5	5.5	5.5	6.2	6.7	0.0
New Hampshire	2.4	2.9	3.6	5.3	7.5	8.5	9.3	3.9
New Jersey	2.2	2.7	3.7	5.3	7.5	9.8	10.5	3.8
New Mexico	2.4	2.4	2.4	4.5	6.3	12.7	12.7	4.0
New York	1.8	1.8	1.8	3.6	5.4	7.7	10.0	3.5
North Carolina	1.8	2.1	3.1	3.6	5.1	16.3	25.4	2.0
North Dakota	2.0	2.0	3.7	4.4	7.2	10.6	14.6	3.4
Ohio	2.7	3.1	4.2	5.2	6.8	9.9	13.0	2.6
Oklahoma	2.3	3.0	3.9	5.6	8.3	11.9	15.6	4.5
Oregon	3.1	3.5	4.4	5.9	7.4	9.8	12.0	3.0
Pennsylvania	2.2	2.4	2.7	3.9	4.9	6.0	6.9	2.2
Rhode Island	1.9	2.4	3.2	4.3	5.5	6.6	7.0	2.4
South Carolina	1.5	2.1	2.2	3.0	4.4	6.0	7.7	2.1
South Dakota	3.6	4.0	5.6	6.7	10.5	13.6	16.7	5.0
Tennessee	4.6	5.4	6.1	8.9	13.3	20.0	22.7	7.2
Texas	2.4	2.7	3.5	4.9	6.4	8.1	10.4	2.9
Utah	2.0	2.2	3.4	4.3	5.1	6.0	6.4	1.7
Vermont	4.0	4.6	5.5	6.6	9.3	12.1	13.1	3.8
Virginia	1.6	1.6	1.9	2.9	4.1	6.1	8.3	2.2
Washington	3.3	3.8	4.7	5.7	7.5	11.4	13.0	2.8
West Virginia	2.3	2.3	2.8	3.5	4.3	5.0	5.6	1.4
Wisconsin	2.0	2.5	3.6	4.8	6.0	8.2	9.4	2.5
Wyoming	2.9	3.0	3.4	4.1	5.9	7.3	8.9	2.5

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. Tabulation excludes size and locale combination that have fewer than 20 districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 16. Standard deviation in migration-adjusted averaged freshman graduation rates (AFGR) for publi school districts, by percentile and state: 1994-95 through 2004-0

State	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**2.0**	**2.5**	**3.3**	**4.6**	**6.5**	**9.1**	**12.8**	**3.2**
Alabama	2.2	2.2	3.2	4.1	5.6	6.6	7.2	2.5
Alaska	1.9	1.9	1.9	4.1	5.1	13.0	18.4	3.2
Arizona	4.1	4.1	5.6	7.5	9.0	27.5	36.8	3.4
Arkansas	3.4	3.9	4.6	6.3	9.4	12.0	16.1	4.8
California	0.7	1.5	2.8	4.0	5.9	9.3	14.8	3.1
Colorado	2.2	2.5	3.6	4.3	4.8	7.1	9.9	1.2
Connecticut	2.3	2.7	3.7	4.7	6.4	10.1	16.8	2.7
Delaware	2.4	2.4	3.4	4.0	8.2	8.8	14.5	4.8
Dist. of Columbia[1]	†	†	†	8.0	†	†	†	†
Florida	2.4	2.4	2.6	3.1	3.9	5.5	6.5	1.3
Georgia	2.0	2.2	2.5	3.3	5.1	6.1	7.0	2.6
Hawaii[1]	†	†	†	3.0	†	†	†	†
Idaho	2.3	2.3	3.5	4.9	5.8	7.9	10.2	2.4
Illinois	2.7	2.7	3.2	4.3	6.1	7.9	9.9	2.8
Indiana	2.0	2.5	3.6	4.5	6.0	7.3	8.8	2.4
Iowa	2.2	3.0	4.2	6.3	8.1	11.8	17.0	3.9
Kansas	3.2	3.2	4.4	5.1	7.8	10.9	14.3	3.4
Kentucky	2.3	2.7	3.4	4.2	5.9	7.9	11.4	2.5
Louisiana	1.9	2.4	3.4	4.5	6.5	7.9	14.2	3.1
Maine	4.0	4.3	5.0	6.2	7.7	12.3	18.1	2.7
Maryland	1.2	1.3	1.6	2.5	3.7	5.1	5.1	2.1
Massachusetts	3.1	3.5	4.3	5.2	7.0	9.1	12.3	2.7
Michigan	2.8	3.2	3.8	5.4	7.3	11.8	19.9	3.5
Minnesota	3.3	4.1	4.5	6.5	9.1	17.6	32.5	4.6
Mississippi	2.4	2.9	3.4	4.2	5.6	7.3	8.1	2.2
Missouri	3.1	3.5	4.2	5.6	7.6	9.4	11.2	3.3
Montana	2.9	2.9	3.1	6.0	10.3	21.7	28.8	7.3
Nebraska	3.1	3.1	3.5	5.5	7.6	10.5	13.9	4.1
Nevada	3.8	3.8	3.8	3.8	5.7	5.7	6.6	1.9
New Hampshire	2.5	2.8	4.5	5.8	7.7	9.0	10.5	3.3
New Jersey	2.8	3.2	4.4	5.6	8.0	10.1	11.4	3.7
New Mexico	3.4	3.6	3.6	4.9	7.4	12.7	12.7	3.8
New York	2.6	2.6	2.6	3.9	5.6	7.9	10.1	2.9
North Carolina	1.7	2.2	2.9	3.9	4.8	7.0	7.0	1.9
North Dakota	3.5	3.5	4.2	5.2	8.5	12.5	17.2	4.3
Ohio	2.6	3.3	4.7	6.0	7.9	10.8	18.9	3.2
Oklahoma	2.3	2.7	4.0	6.0	8.5	12.0	15.5	4.5
Oregon	3.2	4.1	4.6	7.0	8.3	14.8	20.2	3.7
Pennsylvania	2.5	2.8	3.5	4.5	5.5	6.6	7.5	2.1
Rhode Island	2.9	3.4	3.8	5.6	6.2	8.4	14.7	2.4
South Carolina	1.9	2.0	2.4	2.7	4.1	5.9	7.4	1.7
South Dakota	3.9	4.3	6.3	8.2	11.4	14.4	18.7	5.1
Tennessee	4.1	5.0	6.0	8.5	12.9	16.3	18.6	6.9
Texas	2.0	2.5	3.7	4.7	6.2	8.5	9.8	2.6
Utah	2.7	2.7	3.9	4.8	5.2	6.5	7.1	1.3
Vermont	4.2	4.8	7.1	8.5	12.0	24.7	26.4	4.9
Virginia	2.0	2.0	2.1	3.3	4.6	6.5	8.0	2.5
Washington	3.1	3.7	4.7	6.0	8.5	10.8	13.0	3.7
West Virginia	2.0	2.0	2.9	3.6	4.7	5.2	5.9	1.9
Wisconsin	2.7	3.2	4.5	5.5	7.4	9.3	12.2	2.9
Wyoming	2.7	2.7	3.6	4.8	6.1	7.6	8.2	2.4

†Not applicable.

[1]Jurisdiction has only one school district.

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. Tabulation excludes size and locale combination that have fewer than 20 districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 17. Standard deviation in averaged freshman graduation rates (AFGR) for public school districts, by size of distric and locale: 1994-95 through 2004-0

District size and locale	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Total	**1.8**	**2.2**	**3.0**	**4.3**	**6.0**	**8.7**	**11.9**	**3.0**
Less than 300	5.6	6.6	8.8	11.9	16.7	24.6	33.2	7.9
300 to 599	4.6	5.3	6.9	9.0	11.5	15.1	20.2	4.6
600 to 999	3.9	4.5	5.5	7.1	9.1	12.0	15.6	3.6
1000 to 2,400	3.1	3.6	4.4	5.6	7.3	9.4	11.2	2.9
2,500 or more	1.8	2.0	2.8	3.9	5.5	7.6	10.3	2.7
City, large[1]	**1.8**	**1.8**	**1.8**	**3.3**	**4.7**	**6.3**	**7.6**	**2.9**
2,500 or more	1.8	1.8	1.8	3.3	4.7	6.3	7.6	2.9
City, midsize[2]	**1.8**	**2.3**	**3.0**	**3.9**	**5.4**	**7.8**	**18.3**	**2.3**
2,500 or more	1.8	2.3	3.0	3.8	5.4	7.8	18.3	2.3
City, small[3]	**2.2**	**2.5**	**3.1**	**4.2**	**5.9**	**8.1**	**11.2**	**2.8**
1000 to 2,400	3.0	3.4	5.5	6.7	7.7	25.8	111.8	2.2
2,500 or more	2.2	2.5	3.1	4.2	5.8	8.0	10.6	2.7
Suburban, large[4]	**1.6**	**2.1**	**2.7**	**3.9**	**5.5**	**7.7**	**10.0**	**2.8**
600 to 999	3.6	4.2	5.0	6.3	8.0	10.2	11.2	3.0
1000 to 2,400	2.7	3.3	4.2	5.4	7.3	9.4	10.7	3.2
2,500 or more	1.6	2.0	2.7	3.7	5.4	7.4	9.8	2.8
Suburban, midsize[5]	**2.0**	**2.3**	**3.3**	**4.3**	**6.4**	**7.6**	**10.8**	**3.1**
1000 to 2,400	2.2	2.7	3.7	4.9	6.2	8.0	9.1	2.5
2,500 or more	2.0	2.3	3.3	4.2	6.4	7.5	10.8	3.2
Suburban, small[6]	**2.3**	**2.7**	**3.2**	**4.5**	**5.6**	**7.9**	**9.5**	**2.3**
1000 to 2,400	3.3	3.9	4.5	5.2	6.6	7.9	9.8	2.1
2,500 or more	2.3	2.5	3.0	4.2	5.4	7.6	8.1	2.3
Town, fringe[7]	**2.7**	**3.2**	**3.9**	**5.0**	**6.5**	**8.7**	**11.6**	**2.5**
600 to 999	4.1	4.2	5.0	5.9	7.7	10.4	13.1	2.7
1000 to 2,400	3.0	3.6	4.3	5.2	7.0	8.7	9.9	2.7
2,500 or more	2.7	3.1	3.7	4.8	6.1	8.6	12.4	2.3
Town, distant[8]	**2.7**	**3.1**	**4.1**	**5.1**	**6.6**	**8.7**	**10.8**	**2.5**
300 to 599	4.3	4.8	5.0	8.1	10.4	26.3	26.3	5.4
600 to 999	3.8	4.4	5.4	7.1	8.9	10.9	16.5	3.5
1000 to 2,400	3.1	3.6	4.4	5.5	7.0	8.7	9.8	2.6
2,500 or more	2.5	2.8	3.7	4.7	6.2	8.3	11.3	2.5
Town, remote[9]	**2.9**	**3.3**	**4.1**	**5.3**	**6.6**	**8.9**	**11.1**	**2.5**
300 to 599	4.3	4.3	5.4	7.1	11.0	17.0	85.7	5.6
600 to 999	3.8	4.2	5.4	6.9	9.0	11.9	22.0	3.6
1000 to 2,400	3.3	3.7	4.5	5.7	7.0	8.9	10.2	2.6
2,500 or more	2.8	3.0	3.7	4.7	5.7	7.4	8.9	1.9
Rural, fringe[12]	**2.4**	**2.8**	**3.6**	**5.0**	**6.8**	**10.1**	**12.8**	**3.2**
300 to 599	4.4	4.9	5.6	8.5	11.0	14.7	17.8	5.3
600 to 999	3.5	3.8	4.9	6.6	9.3	12.5	14.9	4.4
1000 to 2,400	2.9	3.4	4.4	5.6	7.4	9.4	11.5	3.0
2,500 or more	2.2	2.7	3.3	4.6	6.1	9.7	12.8	2.8
Rural, distant[13]	**2.8**	**3.3**	**4.4**	**6.0**	**8.2**	**11.3**	**14.7**	**3.7**
Less than 300	6.1	7.6	9.7	12.7	17.5	26.0	59.7	7.9
300 to 599	4.7	5.7	7.2	9.3	11.7	14.5	18.3	4.5
600 to 999	4.4	4.8	5.8	7.1	8.9	11.2	15.0	3.1
1000 to 2,400	3.4	3.8	4.7	6.0	7.9	10.3	12.4	3.1
2,500 or more	2.4	2.6	3.5	4.6	6.2	8.4	12.5	2.7
Rural, remote[14]	**3.6**	**4.0**	**5.5**	**7.6**	**10.8**	**15.9**	**21.2**	**5.4**
Less than 300	6.1	6.9	9.0	11.9	16.5	22.7	29.2	7.5
300 to 599	5.1	5.6	7.1	8.9	11.5	15.4	19.3	4.4
600 to 999	4.0	4.6	5.8	7.6	9.7	13.5	17.7	3.9
1000 to 2,400	3.4	3.9	4.9	6.1	8.0	10.9	15.4	3.1
2,500 or more	2.6	3.3	3.6	4.1	6.6	7.9	12.0	3.0

[1]Located inside an urbanized area and inside a principal city with a population of at least 250,000
[2]Located inside an urbanized area and inside a principal city with a population of at least 100,000, but less than 250,00
[3]Located inside an urbanized area and inside a principal city with a population less than 100,000
[4]Located inside an urbanized area and outside a principal city with a population of 250,000 or more
[5]Located inside an urbanized area and outside a principal city with a population of at least 100,000, but less than 250,00
[6]Located inside an urbanized area and outside a principal city with a population less than 100,000
[7]Located inside an urban cluster that is 10 miles or less from an urbanized area
[8]Located inside an urban cluster that is more than 10, but less than or equal to 35 miles from an urbanized area
[9]Located inside an urban cluster that is more than 35 miles from an urbanized area
[10]Located outside any urbanized area or urban cluster and is 5 miles or less from an urbanized area or 2 miles or less from an urban cluster.
[11]Located outside any urbanized area or urban cluster and is more than 5 miles and less than or equal to 25 miles from an urbanized area, or more than 2 miles and less than or equal to 10 miles from an urban cluster
[12]Located outside any urbanized area or urban cluster and more than 25 miles from an urbanized area or more than 10 miles from
NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate or time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. Urbanized areas are densely settled areas containing at least 50,000 people. Urban clusters are densely settled areas with populations of 2,500 to 49,999
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.

Table 18. Standard deviation in averaged freshman graduation rates (AFGR), migration-adjusted averaged freshman graduation rate sophomore graduation rate (SGR), and migration-adjusted sophomore graduate rate for public school districts, by size of district and locale: 1994-95 through 2004-05

Graduation rate method and district size	5th percentile	10th percentile	25th percentile	50th percentile (median)	75th percentile	90th percentile	95th percentile	Difference in percentage points, 25th to 75th percentiles
Averaged freshman graduation rate								
Total	1.8	2.2	3.0	4.3	6.0	8.7	11.9	3.0
Less than 300	5.6	6.6	8.8	11.9	16.7	24.6	33.2	7.9
300 to 599	4.6	5.3	6.9	9.0	11.5	15.1	20.2	4.6
600 to 999	3.9	4.5	5.5	7.1	9.1	12.0	15.6	3.6
1000 to 2,400	3.1	3.6	4.4	5.6	7.3	9.4	11.2	2.9
2,500 or more	1.8	2.0	2.8	3.9	5.5	7.6	10.3	2.7
Averaged freshman graduation rate adjusted for migration								
Total	2.0	2.5	3.3	4.6	6.5	9.1	12.8	3.2
Less than 300	5.9	7.3	10.0	13.3	18.7	28.3	37.0	8.7
300 to 599	5.4	6.1	7.7	9.8	12.4	16.8	23.8	4.7
600 to 999	4.2	4.8	5.9	7.6	9.9	14.5	22.7	4.0
1000 to 2,400	3.4	3.9	4.9	6.2	7.9	10.5	13.6	3.0
2,500 or more	1.9	2.4	3.1	4.2	5.7	8.0	10.5	2.7

NOTE: The averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later. The enrollment adjusted averaged freshman graduation rate provides an estimate of the percentage of high school students who graduate on time, adjusted by change in school enrollment. The rate uses aggregate student enrollment data to estimate the size of an incoming freshman class and aggregate counts of the number of diplomas awarded 4 years later.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 1989-90 through 2005-06 and "Local Education Agency Universe Survey," 1994-95 through 2005-06.