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Leaving Boys Behind:<br>Public High School Graduation Rates

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## Public High School Graduation Rates

## Executive Summary

This study uses a widely respected method to calculate public high school graduation rates for the nation, for each state, and for the 100 largest school districts in the United States. We calculate graduation rates overall, by race, and by gender, using the most recent available data (the class of 2003).

Among our key findings:

- The overall national public high school graduation rate for the class of 2003 was 70 percent.
- There is a wide disparity in the public high school graduation rates of white and minority students.
- Nationally, the graduation rate for white students was 78 percent, compared with 72 percent for Asian students, 55 percent for African-American students, and 53 percent for Hispanic students.
- Female students graduate high school at a higher rate than male students. Nationally, 72 percent of female students graduated, compared with 65 percent of male students.
- The gender gap in graduation rates is particularly large for minority students. Nationally, about 5 percentage points fewer white male students and 3 percentage


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points fewer Asian male students graduate than their respective female students. While 59 percent of African-American females graduated, only 48 percent of African-American males earned a diploma (a difference of 11 percentage points). Further, the graduation rate was 58 percent for Hispanic females, compared with 49 percent for Hispanic males (a difference of 9 percentage points).

- The state with the highest overall graduation rate was New Jersey (88 percent), followed by Iowa, Wisconsin, and North Dakota, each with 85 percent. The state with the lowest overall graduation rate was
- South Carolina (54 percent), followed by Georgia (56 percent) and New York (58 percent).
- Each of the nation's ten largest public high school districts, which enroll more than 8 percent of the nation's public school student population, failed to graduate more than 60 percent of its students.
- Among the nation's 100 largest public school districts (by total enrollment size), the highest graduation rate was in Davis, Utah (89 percent), followed by the Ysleta Independent School District in Texas (84 percent). Among the 100 largest districts, the lowest graduation rate was in San Bernardino City Unified district (42 percent), followed by Detroit (42 percent) and New York City (43 percent).


## Introduction

The unreliability of official public high school graduation rates is well known. It is so well known that last year, the National Governors Association (NGA) released a report that stated: "Unfortunately, the quality of state high school graduation and dropout data is

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such that most states cannot accurately account for their students as they progress through high school." 11 In response, forty-five state governors signed an agreement to implement an improved, standard calculation of the four-year high school graduation rate.

One might think that the battle has been won-that there is no longer a need for independent estimates of graduation rates, such as those that we have produced in the past and that appear in this report. But there are several reasons that we continue to need these independent estimates of public high school graduation rates. It will be many years before most states develop the data systems to accurately track students and compute graduation rates. In the interim, we will continue to need reliable estimates of graduation rates. The governors have pledged to take reasonable steps to improve graduation rate calculations until systems are in place to track individual students over time. But to ensure the proper implementation of both the immediate and long-term reforms, we will need independent estimates to verify the official statistics. We would not have recognized the need for improvement of official graduation statistics had it not been for independent estimates; and we will not know that they have, in fact, improved unless we continue to produce those independent estimates.

We also continue to need reasonable independent estimates of public high school graduation rates because not everyone has accepted that the independent estimates are more reliable than official statistics. Even though most of the nation's governors concede the point, Lawrence Mishel of the Economic Policy Institute has taken a firm stand in support of the official results and against the independent estimates.[2] Mishel's argument is that independent estimates rely upon enrollment and diploma counts from the

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U.S. Department of Education's Common Core of Data (CCD). How can we be sure, he asks, that those counts are reliable? In addition, he observes that two high-quality government surveys, the Current Population Survey (CPS) and the National Educational Longitudinal Survey (NELS), produce graduation rate results that are similar to each other and significantly higher than the independent estimates based on CCD.

Mishel speculates that the CCD counts may be unreliable but offers no support for his speculation. We have good reason to believe that the CCD enrollment and diploma counts are reliable. CCD establishes standards and procedures for states to collect and report enrollment and diploma data. If states do not meet those standards or follow those procedures, their data are not reported.

It should not be difficult for states to track enrollment and diplomas. Enrollment counts are based on schools taking attendance, which schools are very good at doing. One reason schools are likely to keep accurate attendance is that enrollment counts are the basis for school funding by state and federal governments. Further, because attendance determines how much money state and federal governments allot to schools, these higher levels of government are inclined to check and ensure the accuracy of attendance figures. Similarly, diploma counts are likely to be accurate because it is easy for schools to count diplomas and it is easy to verify the numbers. At the very least, schools have to know how many diplomas should be printed and distributed.

Mishel specifically questions our estimates of the entering ninth-grade class enrollment, which he claims are distorted by the tendency for those enrollments to be inflated because of students being held back in that grade. It is possible to run a simple check to see if our estimates of ninth-grade enrollment are on target. Using the official

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CCD enrollment counts, we estimate that 3,635,420 students entered the ninth grade in public school in 1999. According to the U.S. Census-in a number derived from its CPS-there were 3,892,340 fourteen-year-olds in the nation in June 1999. According to the National Center for Education Statistics (NCES), 835,328 students attended private high schools (in 2001), which, divided by four, suggests that there were 208,832 ninthgraders in private school. If we subtract the private school ninth-graders from the fourteen-year-old population, we are left with a difference between the number of fourteen-year-olds and our estimated ninth-grade entering class of 48,088 students, or 1.3 percent. It would seem that the enrollment counts that we use are accurate.

Enrollments and diplomas are easy to count accurately, and the actors have incentives to ensure that the counts are accurate-a simple check helps confirm that; on what basis does Mishel believe otherwise? He simply has more faith in graduation rates computed from CPS and NELS surveys than in those derived from CCD enrollment and diploma counts. Essentially, Mishel is arguing that we ought to believe the results from samples more than results from the population. This is exactly the opposite of standard social science practice. Normally, we expect some degree of error whenever we survey a sample drawn from a population. If we have concerns about the sample, we check the characteristics of the sample against known characteristics of the population from which the sample was drawn to ensure its validity. In this case, however, Mishel is suggesting that we ought to check the accuracy of the characteristics of the population against the characteristics in samples.

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Samples always involve some degree of random error, but CPS and NELS have additional, known biases for the purpose of calculating graduation rates. The NELS and CPS surveys both overstate graduation rates because they have difficulty finding and following marginalized and disadvantaged people, such as dropouts. Phillip Kaufman (the primary author of previous government calculations of graduation rates that used CPS) indicated that such a coverage bias probably exists. Specifically, dropouts are less likely to be reached by sample surveys (that is, they are "undercovered"). In a report for the Harvard Civil Rights Project, Kaufman estimated that if we made the reasonable assumption that 50 percent of those undercovered by the CPS were dropouts, we would end up with a completion rate of 80.4 percent.[3] If we then excluded GED recipients from that estimate, we would get much closer to the estimate of a 70 percent graduation rate that we and others suggest. In other words, the systematic sampling biases of CPS and NELS make their graduation numbers higher and less reliable than those derived from population counts.

We can do a simple check on Mishel's "true" graduation rates derived from CPS and "confirmed" by NELS. If Mishel is correct in saying that the true graduation rate is in the neighborhood of 90 percent,[4] there should have been about 3,678,300 diplomas awarded in 2003 from public and private high schools. According to CCD, there were only $3,062,000$ diplomas given out that year. If Mishel is correct, CCD would have to have missed more than 600,000 diplomas in its count. Is it more likely that CPS and NELS suffer from a sampling bias due to the difficulty of finding dropouts, or that school systems undercounted the number of diplomas they awarded by more than 600,000,

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making those schools appear less successful than they actually were by nearly 20 percent?

Until official graduation statistics produce more reliable estimates, it is clear that we will continue to need independent estimates of graduation rates. Those independent estimates will also help ensure progress toward improved official statistics.

## What's New in This Report?

While this report builds upon a foundation of previous reports, there is much that is new. First, this report contains graduation rate estimates for the class of 2003, the most recent year for which data are available. Unfortunately, CCD enrollment and diploma counts are being released with greater time lags. However, since graduation rates tend not to change dramatically in short periods of time, this study provides a valuable snapshot of the performance of public schools today.

Second, in this report we are able for the first time to break out graduation rates by gender. Observers have long suspected that the graduation rate for boys is significantly lower than that for girls. CCD now contains enough information to allow us to estimate graduation rates using our method for boys and girls separately.

Third, this report contains graduation rates for each of the 100 largest school districts in the country. We previously reported rates for these districts in a 2001 report, "High School Graduation Rates in the United States," with results for the class of 1998. But in the last few national reports, we did not release results for districts. The district results in the 2001 report were based on enrollment and diploma information gathered from districts and states. After releasing that report, we had concerns about the reliability

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and consistency of those counts, so we refrained from producing district graduation rates in subsequent national reports. For this report, we believe that we have addressed those concerns by relying only on district information gathered from CCD. Because of the uniform standards and procedures enforced by CCD, we feel confident once again to report district results. It is important to note that no comparisons ought to be made between the district results for the class of 2003 and our previously reported district results for the class of 1998. Because those earlier results may not be reliable and were not computed using the same method as the current report, no conclusions should be drawn about any change in graduation rates for the districts.

In this report, there is no need to discuss issues that we have covered in previous reports. For example, if readers are interested in our thoughts on why graduation rates are important, how officially reported rates are often mistaken, why GEDs ought not to be included in graduation rates, and other related issues, we would urge them to peruse our report "Public High School Graduation and College-Readiness Rates: 1991-2002." [5]

## Summary of Results

Though they are consistent with previous evaluations, the results reported in this paper are certain to raise many eyebrows. Overall, we estimate that only 70 percent of the students in the class of 2003 earned a high school diploma. This figure represents little change from our estimate of a 71 percent graduation rate for the class of 2002 and a 72 percent graduation rate for the class of 1991 . We discovered that about 78 percent of white students and 72 percent of Asian students graduated high school, but little more than half of Hispanic and African-American students took home a sheepskin: 53 percent

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and 55 percent, respectively. Further, in each racial category that we evaluate, females graduate at a higher rate than males, with a particularly large difference for Hispanic and African-American students. An already low 58 percent and 59 percent of Hispanic and African-American females graduated from high school in 2003; only 49 percent and 48 percent of males in these categories earned a diploma.

Our district-level results suggest that high school graduation rates are a particular problem in our nation's most populated school districts. For example, only about 43 percent of the 1.1 million students in New York City public school district graduate from high school. The calculations are similarly disturbing for most of the nation's largest school systems. None of the nation's ten largest school systems, which over 8 percent of U.S. public school children attend, graduates more than 60 percent of its students.[6] As with the nation as a whole, larger school districts uniformly graduate far fewer minority and male students than white and female students.

## Data and Method

To calculate graduation rates for each state and several school districts, we utilize enrollment and diploma data reported by NCES, the statistical arm of the United States Department of Education. We acquired enrollments over several years by grade, race, and gender from NCES's Common Core of Data (CCD). Unlike in previous years, diploma counts for the class of 2003 were not made publicly available, so those data were obtained from the restricted-access data file of the CCD.[7]

The advantage of using CCD information on enrollments is that these figures are the enrollments that the states officially report to the federal government under uniform

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guidelines. Thus, we can have confidence that the data are accurate and comparable among the states. The disadvantage of using CCD, however, is that the data lag to the point where the most recent graduation rate calculation available is for the class of 2003. However, what is gained in the quality of the data reported likely more than outweighs the timing of the data, especially considering that high school graduation rates tend not to change substantially in a short time span.

The method for calculating graduation rates is straightforward. The method takes the form:
regular diplomas in spring of 2003
graduation rate $=$
(estimated number of students entering ninth grade in 1999) * ( $1+$ population change between fourteen-year-olds in the summer of 1999 and seventeen-yearolds in the summer of 2002)

We must estimate the number of students who enter the ninth grade in 1999 instead of simply taking the reported ninth-grade enrollment in that year because researchers agree that the ninth-grade enrollment number is inflated by students repeating ninth grade. What is often referred to as the "ninth-grade bubble"-the tendency for ninth-grade enrollments to be exceptionally high compared with other grades-likely occurs because the ninth grade is the first that students must pass by earning a minimum number of credits. Thus, ninth-grade reported enrollments reflect the many students who are repeating the grade.

To estimate the cohort's ninth-grade enrollment, we cannot simply substitute the cohort's eighth-grade enrollment because a large number of students who attend private school in the eighth grade enter public school in the ninth grade (there are far fewer private high schools, and they tend to be more expensive). Further, we cannot use only

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the cohort's tenth-grade enrollment because by that time, students have already begun to drop out. To estimate the entering ninth-grade cohort for the class of 2003, we take the average reported enrollments of students in the eighth grade in 1998, ninth grade in 1999, and tenth grade in 2000.[8] The resulting "smoothed" figure provides a reasonable estimate of the entering student cohort.

A large percentage of states failed to report enrollments by gender, especially in 1998, our cohort's eighth-grade year. All but two states, however, reported high school diploma counts by gender for the spring of 2003.[9] In order to include as many states as possible in our calculation, we adopted a strategy for estimating the gender enrollments in eighth, ninth, and tenth grades-which was implemented for all states in the gender calculations. Nearly all states reported enrollments by race and overall for each of the years necessary to calculate graduation rates.[10] To estimate the enrollment by race/gender, we simply took each state's enrollment by race and multiplied it by the percentage of fourteen-year-olds in the state of that race who were male or female according to the U.S. Census in the summer before the cohort's ninth-grade year. For example, in Arkansas in 1998, there were 26,433 white students in the eighth grade. According to computations using census data, 51.711 percent of white fourteen-year-olds in Arkansas in the summer of 1999 were male. Therefore, we estimate that Arkansas had about 13,669 (or 26,433 x . 51711, with rounding) white male students in the eighth grade in 1998.[11]

To calculate the population change at the state and national levels, we use population estimates by age, race, and gender reported by the United States Census.[12] We take the difference between the number of seventeen-year-olds in the population

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during the summer of 2002 (the summer before the cohort's twelfth-grade year) and the number of fourteen-year-olds in the population during the summer of 1999 (the summer before the cohort's ninth-grade year). We then divide the resulting change in population by the number of fourteen-year-olds in 1999 to get the percent increase (or decrease) in the area's population of students in the cohort's age group.

We use a different population change computation for graduation rates by school district because population estimates by age are not readily available at the school district level. We use district-level enrollments as a substitute for the age populations and make the reasonable assumption that, on average, transfers in and out of a high school are equal for each grade in the school. We take the difference between the number of students in grades nine through twelve in 2002 (the cohort's twelfth-grade year) and the number of students in grades nine through twelve in 1999 (the cohort's ninth-grade year) and divide the resulting figure by the number of students in grades nine through twelve in 1999. This produces an estimate of the percent change in the district's enrollment while the cohort was in high school.

We then adjust the estimated ninth-grade cohort by the change in the population while the students were in high school. This produces the projected graduating cohortthe number of students who could possibly graduate with the class of 2003. Finally, we take the number of diplomas that were actually given out in the spring of 2003 and divide it by the projected graduating cohort. The result is the estimated high school graduation rate.

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Though this method tends to produce reliable estimates of graduation rates, it can be distorted when there are particularly small cohorts or when population changes are extraordinarily large. For this reason, we adopt and apply consistent rules for excluding cohorts for which we do not have adequate information.[13] We do not report graduation rates for cohorts of students less than or equal to 200 or when the cohort's population change is 30 percent or greater. We also exclude any case where the cohort is less than or equal to 2,000 and the population change is 20 percent or greater. However, though we do not report graduation rates in areas with these cohort- or population-change levels, their enrollments and populations are included in the state and national calculations.

It is important to clarify that the method in this paper is not a four-year on-time graduation rate. Though the method does follow high school enrollments through four sequential grades, students who take longer than four years to graduate are estimated into the calculation as well. Such students would exit our cohort; however, they would likely be replaced by students in the previous cohort class who have also taken longer to graduate. For example, if a student who entered the ninth grade in 1999 took five years to graduate (that is, graduated with the class of 2004), he would not receive a diploma in the spring of 2003 and thus would not be included in our calculation. However, if another student entered the ninth grade in 1998 (the expected graduating class of 2002) and also took five years to graduate, that student would receive a diploma in 2003 and would thus be included in the graduation rate calculation. As long as there are not dramatic year-toyear differences in the number of students who take longer than four years to graduate, these students should replace each other in the calculations, and any distortion should be

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quite limited. Thus, the result of our estimates can be thought of as the graduation rate for the class of 2003, not the on-time graduation rate for that class.

Unlike many other high school graduation rate calculations, the estimates using the above method can be manipulated to interpret the high school dropout rate as well. The high school dropout rate is found by subtracting the high school graduation rate from 100. That is, a graduation rate of 70 percent implies a dropout rate of 30 percent.

Other graduation rate estimates (including nearly all official government calculations) contend that the dropout rate is different from simply 100 minus the graduation rate. They produce far lower dropout estimates where many nongraduates are classified in ways other than as dropouts. However, this practice is contrary to both logic and the public's understanding of the information that a high school graduation rate conveys. For the purposes of our calculation, a student is either a high school graduate or a high school dropout: the student earns a diploma or does not. Thus, our calculation is less confusing than many other methods, and it matches what the public and policymakers expect from a graduation rate.

The above calculations were performed to produce graduation rates in total, by race, gender, and race/gender for the nation, each state, and each of the 100 largest school districts in the United States for which data were available.

## An Example of a State-Level Graduation Rate Calculation

An example of our calculation will illustrate the method: let us calculate the total graduation rate for New York State.

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First, we estimate the number of students who entered the cohort in ninth grade. In New York, the enrollment in eighth grade in 1998 was 200,097, ninth grade in 1999 was 252,864 , and tenth grade in 2000 was 217,734 . The average of these enrollments is 223,565 , which is the estimated number of students who entered the cohort in the ninth grade. Note that the ninth-grade enrollment is much higher than either the eighth-grade or tenth-grade enrollment: this is the "ninth-grade bubble" referred to previously.

Next, we compute the change in New York's population of the cohort's age group. In June 2002, there were 261,326 seventeen-year-olds in New York; and in June 1999, there were 233,701 fourteen-year-olds in the state. The difference in these populations is an increase of 27,625 children. We then divide this difference by the number of fourteen-year-olds in $1999(27,625$ divided by 233,701$)$ to get a population change of about 12 percent.

We then combine our estimated ninth-grade class with the population change to produce an estimated number of students who could graduate from high school among the entering cohort. We take the estimated number of entering ninth-graders in 1999 $(223,565)$ and multiply this number by 112 percent ( 100 percent plus the 12 percent population increase in the state). This produces a potential graduating class of 249,992 students.

Finally, we calculate the state's graduation rate by dividing the number of diplomas that were distributed in New York in the spring of $2003(143,818)$ by the estimated number of students who could graduate in the cohort $(249,992)$. This produces an estimated graduation rate of 57.5 percent for the state of New York for the class of 2003.

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## An Example of a District-Level Graduation Rate Calculation

Since the method varies slightly, it is useful to illustrate our calculation of the districtlevel graduation rates with another example: let us calculate the total graduation rate for Los Angeles.

The enrollment in Los Angeles in the eighth grade in 1998 was 45,053 , ninth grade in 1999 was 58,834 , and tenth grade in 2000 was 46,664 . The average of these enrollments is 50,183 , which is the estimated number of students who entered the ninth grade in 1999. Again, note the bubble in the ninth-grade enrollment.

We next calculate the population change using the school district's high school enrollments during the cohort's ninth- and twelfth-grade years. In 2002, the cohort's twelfth-grade year, in Los Angeles there were 68,802 students in the ninth grade, 49,109 students in the tenth grade, 38,387 students in the eleventh grade, and 27,253 students in the twelfth grade, which totals 183,551 students in the high school grades. In 1999, the cohort's ninth-grade year in Los Angeles, there were 58,834 students in the ninth grade, 46,971 students in the tenth grade, 36,825 students in the eleventh grade, and 28,369 students in the twelfth grade, which totals 170,999 in all high school grades in the school district. We take the number of students in high school in $2002(183,551)$ and subtract from it the number of high school students in $1999(170,999)$ to get an increase in the population of 12,552 . We then divide this figure $(12,552)$ by the number of high school students in $1999(170,999)$ to get a population increase of 6 percent.

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Next, we adjust the estimated entering ninth-grade class by the increase in the Los Angeles school district's population. We take the estimated ninth-grade cohort $(50,183)$ and multiply it by 106 percent ( 100 percent plus the 6 percent population increase) to get an estimated potential graduating cohort of 53,150 students.

Finally, we divide the number of regular diplomas that were granted by the Los Angeles school district in the spring of $2003(27,563)$ by the number of students we estimated could potentially graduate in the cohort $(53,150)$. This produces an estimated graduation rate of 51 percent for the Los Angeles school district in 2003.

## Results

The results of our state-level and national calculations of graduation rates overall, by race, gender, and race/gender are reported alphabetically by state in Table 1.

The national overall graduation rate is about 70 percent, which is in line with calculations from previous years. Nationally, about 78 percent of white students and 72 percent of Asian students graduated with a regular diploma in the class of 2003, compared with the much lower estimates of 53 percent for Hispanic students and 55 percent of African-American students. Female students graduated at a rate of about 72 percent, compared with males at about 65 percent. The race and gender gaps in high school graduation also held when evaluating by race/gender. At only 48 percent, AfricanAmerican male students reported the lowest graduation rates of any subgroup nationally, while white female students had the highest graduation rate, at 79 percent. The disparity between male and female graduation rates was much higher for African-American

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(females, 59 percent; males, 48 percent) and Hispanic (females, 58 percent; males, 49 percent) students than for Asian or white students.

Table 2 ranks the states by overall high school graduation rate. The table shows that graduation rates differed substantially among the states. New Jersey had the highest overall graduation rate ( 88 percent) and was followed by Iowa, Wisconsin, and North Dakota, each at 85 percent. The lowest overall graduation rate was in South Carolina (54 percent), followed by Georgia (56 percent) and New York (58 percent).

Some states fared well overall but had low graduation rates for certain populations of students. For example, Wisconsin ranked third in the nation for overall graduation rate mostly because it had the highest graduation rate for white students. However, of the thirty-three states for which the necessary information was available to calculate graduation rates for African-American students, Wisconsin ranked thirty-second. Conversely, Texas ranked thirty-sixth in the nation in overall graduation rate but had the fifth-highest graduation rate for African-American students among the thirty-three states for which adequate information was available.

Graduation rates overall and for each subgroup for the 100 largest school districts (and a few other districts of interest) are reported in order of the district's total enrollments in 2002 in Table 3, and alphabetically in Table 4.[14] The appearance that larger school districts have lower graduation rates is confirmed by a simple Pearson's correlation, which finds a negative correlation between total enrollment and total graduation rate of -0.32 . However, one should be very cautious in making a conclusion about the role of district size on graduation rates from such a calculation, since this does not account for differences in the populations of students educated in these districts.

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Larger districts, for example, could have a much higher proportion of minority students, which might lead to lower overall graduation rates.

Table 5 ranks the 100 largest school districts by their overall graduation rate. Among the 100 largest school districts, Davis (UT) has the highest graduation rate, at 89 percent, followed by Ysleta (TX) at 84 percent and East Baton Rouge Parrish (LA) at 83 percent. The lowest graduation rate of the nation's 100 largest school districts was in San Bernardino (CA), at 42 percent; Detroit (MI) was also at 42 percent, and the nation's largest school district, New York City, at 43 percent.

## Conclusion

The graduation rate estimates for the class of 2003 reported in this paper confirm that far fewer students graduate high school than is often realized. It is important for policymakers and the public to understand that only about 70 percent of all students and a little more than half of Hispanic and African-American students graduate from high school. While it is not the place of this report to provide guidance on how to improve high school graduation rates, these results do suggest that there is a graduation problem that needs to be addressed.

Another interesting finding in this report is the difference in high school graduation rates between males and females. Females graduate at higher rates for each racial subgroup analyzed in this report, but the gender gap in high school graduation is particularly large for Hispanic and African-American students. The reasons for this gap should be addressed in future research.

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Finally, our calculation of high school graduation rates for the 100 largest school districts suggests that the graduation problem is centered primarily in the nation's largest school districts. Only one of the nation's ten largest school districts in the nation-where more than 8 percent of all students attend school—graduates more than 60 percent of its students. We are not able in this report to define the reasons for such low graduation rates in our nation's largest school systems; but clearly, if the public is to improve high school graduation rates, it would do well to focus its efforts on the education provided in these urban areas.

## Endnotes

1. National Governors Association, "Graduation Counts: Redesigning the American High School," 2005.
2. Lawrence Mishel, "The Exaggerated Dropout Crisis," Education Week, March 8, 2006.
3. Phillip Kaufman, "The National Dropout Data Collection System: Assessing Consistency," paper prepared for Achieve and the Civil Rights Project, "Dropout Research: Accurate Counts and Positive Interventions," January 13, 2001.
4. We do not know precisely what Mishel claims as the true graduation rate or how he computes it because, as of this writing, he has not yet released the report.
5. This report is available online at: http://www.manhattan-
institute.org/html/ewp_08.htm.
6. Authors' calculations from CCD and National Center for Education Statistics, Digest of Education Statistics 2004, Table 37.
7. It appears that state-level diplomas, both overall and by race, will soon be publicly available. However, it is unclear whether these data will be made available by gender or by individual school districts.
8. There were several cases in the eighth-grade year in which enrollment data were not reported by gender or race at the district level. In these cases, we used reasonable proxies for the eighth-grade enrollment. If a district was missing eighth-grade enrollment by gender and race (for example, missing African-American females), our first strategy was to multiply the district's eighth-grade enrollment by race by the percent of the population of fourteen-year-olds of that race that was male or female in the district's state as reported by the census (i.e., the African-American male number was estimated by multiplying the number of eighth-grade African-American students by the percent of fourteen-year-old African Americans in that state who were male). If the eighth-grade enrollment was also missing by race, we inserted the reported eighth-grade enrollment in the 1999 school year for the enrollment in 1998. Neither calculation is likely to create a

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strong distortion in the eighth-grade population, and any such distortion is further contained by the fact that the eighth-grade enrollment is only one-third of an estimate that is then further adjusted by population changes in the area.
9. New Hampshire and South Carolina did not report diplomas by gender.
10. Arizona, Idaho, and New Jersey did not report enrollments by race in all necessary years. Population changes in Hawaii and the District of Columbia were large enough to require their omission.
11. We did not carry out similar computations by district because census data by district are not readily available. Therefore, except for the situation reported in $n .7$ above, a district is only included in our estimates by gender if it reports the necessary enrollments in each year.
12. Available at: http://www.census.gov/popest/estimates.php.
13. These rules are the same as those in previous evaluations using this method, and were first developed in Jay P. Greene and Marcus A. Winters, "Public High School Graduation Rates in the United States," Manhattan Institute Civic Report 31, November 2002. 14. At the district level, a few graduation rates were estimated to be slightly over 100 percent. This likely occurs where there are very high graduation rates, and error inherit in estimation caused a result above 100 percent. Since such graduation rates are not possible, in these cases we imputed a graduation rate of 99 percent.

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Table 1


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Table 2

| Rank | State | Total Graduation Rate |
| :---: | :---: | :---: |
| 1 | New Jersey | 88\% |
| 2 | lawa | 85\% |
| 3 | Wisconsin | 85\% |
| 4 | North Dakota | 85\% |
| 5 | Minnesota | 84\% |
| 6 | Nebraska | 84\% |
| 7 | Connecticut | 82\% |
| 8 | Pennsylvania | 81\% |
| 9 | Ohio | 79\% |
| 10 | South Dakota | 79\% |
| 11 | New Hampshire | 79\% |
| 12 | Vermont | 78\% |
| 13 | Michigan | 77\% |
| 14 | Utah | 77\% |
| 15 | Missouri | 76\% |
| 16 | Montana | 76\% |
| 17 | West Virginia | 76\% |
| 18 | Kansas | 76\% |
| 19 | Rhode Island | 75\% |
| 20 | Maryland | 75\% |
| 21 | Virginia | 75\% |
| 22 | Idaho | 74\% |
| 23 | Indiana | 74\% |
| 24 | Maine | 74\% |
| 25 | Arkansas | 74\% |
| 26 | Illinois | 73\% |
| 27 | Okahoma | 72\% |
| 28 | Massachusetts | 72\% |
| 29 | Colorado | 72\% |
| 30 | Arizona | 71\% |
| 31 | Oregon | 70\% |
| 32 | Wyoming | 70\% |
| 33 | Washington | 69\% |
| 34 | North Carolina | 69\% |
| 35 | Kentucky | 69\% |
| 36 | Texas | 69\% |
| 37 | Nevada | 67\% |
| 38 | California | 65\% |
| 39 | Delaware | 65\% |
| 40 | Louisiana | 63\% |
| 41 | Florida | 61\% |
| 42 | Alaska | 60\% |
| 43 | Tennessee | 60\% |
| 44 | Alabama | 60\% |
| 45 | Mississippi | 59\% |
| 46 | New Mexico | 59\% |
| 47 | New York | 58\% |
| 48 | Georgia | 56\% |
| 49 | South Carolina | 54\% |
| 50 | District of Columbia | I |
| 51 | Hawaii | I |
| M-Missing data <br> I- Insufficient data to calculate graduation rate |  |  |

Table 3
Table 3: District Graduation Rates by Size of Enrollment


Table 4


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Table 5

| Rank | State | District | Total |
| :---: | :---: | :---: | :---: |
| 1 | UT | DAVIS SCHOOL DISTRICT | 89\% |
| 2 | TX | YSLETA ISD | 84\% |
| 3 | LA | EAST BATONROUGE PARISH SCHOOL BOARD | 83\% |
| 4 | CO | CHERRY CREEK5 | 83\% |
| 5 | UT | JORDAN SCHOOL DISTRICT | 82\% |
| ${ }_{7} 7$ | VA | SAN JUANUNIFIED | $82 \%$ |
| 8 | UT | FAIRFAX COUNTY PUBLIC SCHOOLS AIPINE SCHOOL ISTRICT | 81\% |
| 9 | CA | GARDEN GROVEUNIFIED | 80\% |
| 10 | MD | HOWARD COUNTY PUB SCHLS SYSTEM | 80\% |
| 11 | MD | BALTIMORE COUNTY PUELIC SCHLS | 79\% |
| 12 | UT | GRANITE SCHOOLDISTRICT | 78\% |
| 13 | MD | MONTGOMERY COUNTY PUBLLC SCHLS | 77\% |
| 14 | TX | FORT BEND ISD | 77\% |
| 15 | OR | PORTLAND SCH DIST 1 J | 77\% |
| 16 | MD | ANNE ARUNDELCOUNTY PUB SCHLS | 76\% |
| 17 | CA | SAN FRANCISCO UNIFIED | 76\% |
| 18 19 | TX | NORTH EAST ISD CHESTERFIELD COUNTY PUBLIC SCHOOLS | 76\% |
| 19 20 | $\stackrel{\text { TX }}{\text { TX }}$ | CHESTERFIELD COUNTY PUBLIC SCHOOLS PLANO ISD | 76\% |
| 21 | MD | PRINCEGEORGES COUNTY PUB SCHS | 75\% |
| 22 | TX | NORTHSIDEISD | 75\% |
| ${ }^{23}$ | CA | ELK GROVEUNIFIED | 75\% |
| 24 | WA | SEATTLE SCHOOLDIST 1 | 75\% |
| 25 | NC | WAKE COUNTY SCHOOLS | 74\% |
| 26 | co | JEFFERSO N COUNTY R-1 | 74\% |
| 27 | TX | CYPRESS-FAIRBANKS ISD | 74\% |
| 28 | GA | COBB COUNTY | 71\% |
| 29 | TN | KNOXCOUNTY SCHOOL DISTRICT | 71\% |
| 30 | AZ | MESA UNIFIED DISTRICT | 70\% |
| 31 | NA | VIRGIIIA BEACH CITY PUBLIC SCHOOLS | 69\% |
| 32 | va | PRINCE WILLAM COUNTY PUBLIC SCHOOLS | 69\% |
| 33 | FL | SEMINOLE COUNTY SCHOOL DISTRICT | 69\% |
| 34 | TX | GARLANDISD | 68\% |
| 35 | TN | SHELBY COUNTY SCHOOL DISTRICT | 68\% |
| 36 37 | ${ }_{\text {AZ }} \mathrm{KY}$ | JEFFERSON COUNTY | 67\% |
| 38 | CA | CAPIITRANO UNIFIED | 67\% |
| 39 | NC | GUILFORD COUNTY SCHOOLS | 66\% |
| 40 | N | WASHOECOUNTY SCHOOL DISTRICT | 66\% |
| 42 | TX | FORSYTH COUNTY SCHOOLS PASADENA ISD | 66\% |
| 43 | FL | BREVARD COUNTY SCHOOL DISTRICT | 65\% |
| 44 | CA | SANDIEGO UNIFIED | 64\% |
| 45 | GA | FULTON COUNTY | 64\% |
| 46 | TX | EL PASO ISD | 64\% |
| 47 | TX | ARLINGTONISD | 64\% |
| 48 | FL | PASCO COUNTY SCHOOL DISTRICT | 64\% |
| 49 | AK | ANCHORAGESCHOOL DISTRICT | 64\% |
| 50 | GA | GWINNETTCOUNTY | 63\% |
| 51 52 | Li | ORLEANS PARISH SCHOOL BOARD LEE COUNTY SCHOOLDISTRICT | 63\% |
| 53 | ${ }_{\text {NC }}$ | CUMBERLAND COUNTY SCHOOLS | 63\% |
| 54 | TX | AUSTINISD | 62\% |
| 55 | FL | VOLUSIA COUNTY SCHOOL DISTRICT | 62\% |
| 56 | NE | OMAHA PUBLIC SCHOOLS | 62\% |
| 57 | FL | PALM BEACH COUNTY SCHOOL DISTRICT | 60\% |
| 58 | CA | LONG BEACH UNIFIED | 60\% |
| 59 60 | KL | WICHITA BROWARD COUNTY SCHOOL DISTRICT | 60\% |
| 61 | FL | HILLSBOROUGH COUNTY SCHOOLDISTRICT | 59\% |
| 62 | TX | FORT WORTH ISD | 59\% |
| 63 | AL | MOBILE COUNTY SCHDIST | 59\% |
| 64 | TX | SAN ANTONIO ISD | 59\% |
| ${ }^{65}$ | PA | PHILADELPHIA CITY SD | 58\% |
| 66 67 | FL NC | ORANGE COUNTY SCHOOL DISTRICT | 58\% |
| 68 | FL | POLK COUNTY SCHOOLDISTRICT | 58\% |
| 69 | ca | FRESNO UNIFIED | 58\% |
| 70 | TN | NASHVILE-DAVIDSON COUNTY SD | 58\% |
| 71 72 | FL | DUVALCOUNTY SCHOOL DISTRICT | 57\% |
| 73 | N | CLARK COUNTY SCHOOL DISTRICT | 56\% |
| 74 | TX | HOUSTONISD | 56\% |
| 75 | GA | DEKALB COUNTY | 56\% |
| 76 | co | DENTER COUNTY 1 | 56\% |
| 77 | OH | COLUMBUS CITT SD | 56\% |
| 78 79 | ci | SANTAANA UNIFIED | 56\% |
| 80 | TX | DALLAS ISD | 54\% |
| 81 | FL | PINELLAS COUNTY SCHCOL DISTRICT | 54\% |
| 82 | NM | Albuqueraue Public schools | 54\% |
| 83 | TX | ALDINE ISD | 54\% |
| 84 85 | MA | BOSTON | 52\% |
| 86 | CA | LOS ANGELES UNIFIED | 51\% |
| 87 | TN | MEMPHIS CITY SCHOOL DISTRICT | 51\% |
| 88 | 1 L | CITY OF CHICAGO SCHOOL DIST 299 | 50\% |
| ${ }_{90}^{89}$ | MO GA | ST. LOUIS CITY ATLANTA CITY | 50\% $49 \%$ |
| 91 | MD | BALTIMORE CITY PUB SCH SYSTEM | 48\% |
| 92 | ca | SACRAMENTO CITY UNIFIED | 48\% |
| 93 | CA | OAKLAND UNIFIED | 48\% |
| 94 95 | GA | CLAYTON COUNTY | 46\% |
| 96 | OH | MLEVELAND MUNICIPAL SD | 45\% |
| 97 | NY | NEW YORK CITY PUBLLC SCHOOLS | 43\% |
| 98 | Ml | DETROIT CITY SCHOOL DISTRICT | 42\% |
| 99 | ca | SAN BERNARDINO CITY UNIFIED | 42\% |
| 100 | SC | GREENVILLE COUNTY SCHOOL DISTRICT | 1 |

