

Behind the Numbers



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GRADUATION RATE

One of the indicators that the FCFC tracks is the high school graduation rate for the county. The indicator is designed to help measure the number of young people acquiring the educational skills they need to compete for jobs in a modern economy. Montgomery County has had some success in increasing its high school graduation rate. Here we examine the indicator and potential changes in it in some detail.

To explore what lies behind the numbers, it is useful to start with its associated outcome, Young People Succeeding. (See page 13.) By “Young People Succeeding,” the FCFC means four things:

- ✿ Children are well prepared for learning when they start school and receive support outside of the classroom for their efforts inside the classroom. Intellectual curiosity, skill development and achievement are valued.
- ✿ Young people receive mentoring, guidance and support as they develop the capacity to differentiate between positive and negative risk behaviors.
- ✿ Positive role models are plentiful, and others in the community talk to teenagers with candor and respect about the difficult choices they face.
- ✿ Students finish high school ready to compete successfully in the labor market and/or in continuing education and skills development.

The current indicator under discussion is designed to help measure part of that fourth aspect – “students finish high school...”. The FCFC is interested both in students finishing high school and in their

acquisition of the skills and attitudes required to go into the labor market or go on to further schooling. Over the last six years, the graduation rate in Montgomery County has made a remarkable climb. In 1999-2000, the graduation rate in Montgomery County was more than six percentage points below Ohio’s (74% vs. 80.9%). In 2004-05, Montgomery County’s rate was two percentage points above Ohio’s (88.4% vs 86.2%) and had climbed 14.4 percentage points. Measured in the current fashion, one would assume that just under 12% of students in public high schools in Montgomery County drop out before graduation. This achievement is closely tied to efforts of the Out of School Youth Task Force and the work of the Sinclair Fast Forward Center.

The progress associated with these efforts is real, but, unfortunately, the graduation rate as currently measured still has substantial flaws that educators and policy makers in Ohio and the United States are well aware of and pushing to shortly correct. The current method in Ohio is based on a method approved by the National Center for Educational Statistics. It involves a count backwards from the current year’s crop of graduates (regardless of when they started high school).

FOR EXAMPLE, FOR SCHOOL YEAR 2004-05 THE GRADUATION RATE =

[(Students who graduate during School Year 2004-05) + (summer school 2005 graduates)]

**(Students who dropped out of 12th grade in school year 2004-05) +
(Students who dropped out of 11th grade in school year 2003-04) +
(Students who dropped out of 10th grade in school year 2002-03) +
(Students who dropped out of 9th grade in school year 2001-02)]**

If all true dropouts were captured in school records, the only problem would be counting completions of people who did not graduate in a four-year time horizon. The larger problem, however, is that the counts of dropouts are notoriously bad because schools have difficulty knowing what happens to a student who simply doesn’t show up at the start of the next school year and have no incentive to report accurately number of dropouts. Ohio intends to correct this problem (potentially for next year) by using individual student information to calculate a more accurate cohort measure for the denominator.

How much difference is there between graduation rates as reported and true graduation rates? Several recent research pieces have estimated graduation rates at the state level based on methods that more closely approximate the idea that graduation rates should measure what percent of a cohort of students that start in 9th grade in a particular year graduate four years later. The Tables on the next page show for the State of Ohio the state-reported graduation rate in particular years relative to the rate calculated using measures regarded as superior in one fashion or another¹. Those rates are described on the following page.

OHIO HIGH SCHOOL GRADUATION RATES USING DIFFERENT SYSTEMS

	State Reported	AFGR	ACR	CPI
2001-02	83.0%	77.5%	78.0%	73.8%
2002-03	84.0%	79.0%	79.0%	76.5%
2003-04	85.9%	81.3%	NA	70.7%

ACR=Adjusted Completion Ratio= (Number of students who graduate on time with a regular diploma)/(sum of 8th-, 9th-, and 10th-grade enrollment four years before)

AFGR=Averaged Freshman Graduation Rate= (Number graduating in a particular year on time)/(the average of the 8th-, 9th- and 10th-grade classes five, four and three years before)

CPI=Cumulative Promotion Index= probability that a student entering the 9th grade will complete high school on time using data just from the prior two years based-on-grade to grade promotion rates from 9th through 12th grade.

The AFGR and ACR rates suggest the state-reported rate for Ohio overstates the graduation rate by between five and six percentage points while the CPI suggests a dramatically greater over-statement. For Ohio, AFGR and ACR measures are probably superior. The CPI is using all 9th grade students in the denominator when calculating the 9th- to 10th-grade promotion rate when many of those 9th-graders are not first-time 9th-graders. Next year, when Ohio attempts a correction to approximate an appropriate historic cohort, one would expect reported graduation rates for Ohio to fall by five to seven percentage points, suggesting that Ohio's true high school graduation rate may be closer to 79% to 81%.

A similar calculation using a version of the AFGR for Montgomery County is shown below. It suggests slightly less improvement than is currently observed for Montgomery County and a wider gap between state reported rates for the county and the estimated AFGR graduation rates.

MONTGOMERY COUNTY GRADUATION RATES, 2002-03 TO 2005-06

	State Reported Rate	AFGR
2002-03	84.0%	78.1%
2003-04	87.7%	77.4%
2004-05	88.4%	78.9%
2005-06	n/a	81.5%

Beyond the differences in calculated graduation rates, there are two other substantive issues with graduation rates worth noting.

First, graduation rates, however reported, differ dramatically by ethnic identity. Under current state-reported graduation rates, only 7.8% of white non-Hispanics failed to graduate while 21.7% of black non-Hispanics failed to graduate. The differences between these two groups is likely to increase when more realistic cohort measures are introduced because the differences between the measures are likely to be more substantial for inner city districts than for suburban districts.

MONTGOMERY COUNTY GRADUATION RATES, 2001-02 TO 2004-05 BY ETHNIC IDENTITY

	Black, Non-Hispanic	White, Non-Hispanic	Hispanic
2001-02	71.6%	86.8%	90.5%
2002-03	70.2%	88.2%	84.5%
2003-04	77.6%	90.6%	88.0%
2004-05	78.3%	92.2%	88.1%

Second, graduation rates by themselves do not capture the idea that high school graduates will be ready to go on to college or compete successfully in the labor market on graduation. Ohio is trying to measure skills acquisition by using the Ohio Graduation Test (OGT). (See page 20.) However, there are substantial concerns that students experiencing failure on the OGT will become discouraged and leave school at an earlier point than they otherwise would have. Appropriate strategies for retaining and providing alternative education for such students are gaining ground in Montgomery County. At the state level, public policy must be revised to reward counties and districts that do work with these students.

¹Pinkus, Lyndsay. (2006). "Who's counted? Who's counting? Understanding high school graduation rates." Washington, DC: Alliance for Excellent Education. <http://www.all4ed.org/publications/WhosCounting/WhosCounting.pdf>.