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RAND STUDY BREAKS NEW GROUND IN EXAMINING PITTSBURGH PUBLIC SCHOOLS' GRADUATION RATES

A RAND Corporation study issued today using a new measuring technique estimates that 64 percent of public high school students in Pittsburgh graduate within five years – compared with a 74 percent graduation rate estimated by the state of Pennsylvania.

The graduation rate as calculated by RAND puts Pittsburgh roughly in the middle of average graduation rates among large urban school districts across the United States.

According to the RAND report, produced for Pittsburgh Public Schools, an estimated 35 percent of Pittsburgh's high school students drop out without graduating. Less than 2 percent remain in high school after five years.

RAND researchers John Engberg and Brian Gill, who conducted the study, said that when broken down into subgroups the graduation rate of Pittsburgh high school students after five years is:

- 59 percent for male students.
- 69 percent for female students.
- 59 percent for black students.
- 70 percent for non-black students.

The lower graduation rates for black students and male students are consistent with other findings nationwide.

The RAND Education study represents an advance in the measurement of graduation rates because it followed individual students from their initial entry into high school until they either graduated or dropped out. Other commonly used methods have relied heavily on cross-sectional enrollment data that lacks clear information about students that transfer or repeat grades.

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“Graduation and dropout rates can be calculated most precisely by following individual students from their initial entry into high school,” Gill said. “Following individual students over time is universally recognized as the gold standard for examining graduation and dropout rates. Pittsburgh’s student database allowed it to become one of the first places in the country to use this method and publicly report the results.”

Mark Roosevelt, superintendent of Pittsburgh Public Schools, said: “To be able to make the necessary educational reforms that will better prepare our high school students for success in life, we needed to first really understand our own data in terms of graduation and dropout rates. Having the ability to track individual students over time presented us with the opportunity to get a more accurate snapshot.”

The official state-reported graduation rate is higher than the RAND-reported rate because the state figure ignores students who are still in school after four years (many of whom will not finish) and other groups of students who have not officially dropped out but who are unlikely to graduate. These differences in estimation methods would likely produce similar disparities in other school districts across Pennsylvania.

Dropout rates officially reported by the Pennsylvania Department of Education are far lower than the 35 percent found by RAND. This is because the state’s calculation of dropouts includes only students officially reported as dropping out over the course of a 12-month period, and because the state calculation divides the number of dropouts by a district’s total enrollment in grades seven through twelve. This includes middle schools, where official dropout rates are virtually zero.

The RAND study estimates that five-year graduation rates vary from 52 percent to 85 percent among 11 high schools in the Pittsburgh Public Schools. While some schools have large gaps in graduation rates by race, other schools have no racial disparities in graduation rates. RAND estimates of graduation rates of each high school in Pittsburgh can be found in the report on Page 10.

Students who transferred among high schools within Pittsburgh were counted in the graduation and dropout rates of the schools where they first enrolled in ninth grade.

“The differences in graduation rates among the high schools in Pittsburgh are dramatic,” Gill said. “Identifying and understanding these differences is the essential first step toward developing interventions to reduce the dropout rate in schools across the city.”

“Pittsburgh’s rich electronic student data system can become a powerful tool for early identification of students at risk of dropping out,” Gill added.

The RAND report is one of the first attempts to implement the recent recommendation of the National Governors’ Association, which endorsed the use of individual student data as the best method for estimating graduation and dropout rates.

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While many previous studies have relied on four-year graduation rates, Engberg and Gill said they prefer the five-year method because many students take five years to graduate. However, the overwhelming majority either graduate or drop out within that time, making it unnecessary to extend the time frame longer than five years.

"School districts need to accurately measure graduation and dropout rates so that they can chart their progress toward improving student success," Engberg said. "As school districts invest in programs to help students work toward graduation, responsible management practice requires that districts monitor student outcomes."

Engberg and Gill endorse the rapid development of statewide databases that can follow students through high school and across district lines, reducing the uncertainty in what happens to students who leave the districts where they begin high school. Some states have such databases already, and Pennsylvania is in the process of creating such a database.

In the meantime, the RAND report recommends that the Pittsburgh schools:

- Carefully review the system for coding and tracking students who stop attending school within the Pittsburgh system. All non-attending students should be coded as dropouts unless they can be verified as attending school elsewhere.
- Undertake further study to understand why some schools have higher graduation rates than others, in order to create interventions to reduce dropout and increase graduation.

The study is titled "Estimating Graduation and Dropout Rates with Longitudinal Data: A Case Study in the Pittsburgh Public Schools" and is available on the RAND Web site at www.rand.org.

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