EDUCATION INDICATORS

Educational Attainment (EVS ID ED01001- ED01011)

Recent Performance

This trend is better or improving.

At the bottom end of the education spectrum, Erie has a smaller percentage of residents with less than a high school diploma than its peers, and a greater percentage with a high school diploma or GED. The bad news is that it also has a smaller percentage of residents with bachelor's and advanced degrees, at least among people 25 and older.

For those in the 18-24 age category, Erie actually has a higher percentage with bachelor's degrees or higher, which is most likely a result of the location in the county of five colleges or universities. This implies that Erie's educational attainment is improving. Among those 25 or older, the percent with a BA or higher rose from 22.5% in 2006 to 26.6% in 2013.

The Basics

This indicator reports the percentages of residents who have various levels of education, from less than a 9th grade education through advanced graduate degrees. It reports this for two age categories: 18-24 year olds, and for 25 years old and over. The education breakdowns are slightly different for these two groups.

Why It's Important

Education is a barometer of a region's economic viability and the prospects of the people who live there. Income is highly correlated with educational attainment, so education has a crucial impact on the local standard of living. And forecasts of future job growth often show that high-growth occupations tend to be those which require more education.

The Details

These data come from the U.S. Census Bureau's American Community Survey. Their data are based on a sample and are subject to sampling variability. Educational attainment data are tabulated for people 18 years old and over. Respondents are classified according to the highest degree or the highest level of school completed. The ACS survey question included instructions for persons currently enrolled in school to report the level of the previous grade attended or the highest degree received.

All the Nitty-Gritty Details

American Community Survey documentation:
http://www.census.gov/acs/www/data_documentation/documentation_main/
American Community Survey Subject Definitions:
http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2013_ACSSubjectDefinitions.pdf

Subcategories

For 18-24 year olds:
-less than a high school graduate
-high school graduate (includes equivalency)
-some college or associate's degree
-bachelor's degrees or higher.

For 25 year and over:
    -less than 9th grade
    -9th-12th grade but no diploma
    -high school graduate (includes equivalency)
    -some college but no degree
    -associate's degree
    -bachelor's degree
    -graduate or professional degree

Peer areas
    These variables include data on all 13 of the standard peer areas, along with U.S. data.

Frequency
    Annual

Source
    American Community Survey from the U.S. Census Bureau. One-year estimates. Table S1501, Educational Attainment.

Other Related Data
    -Data on Educational Attainment from the Census's Current Population Survey (U.S.—not Erie--only, from 1947): http://www.census.gov/hhes/socdemo/education/data/cps/index.html
    -Data on Educational Attainment from the Census's Survey of Income and Program Participation (U.S.—not Erie--only, from 1984): http://www.census.gov/hhes/socdemo/education/data/sipp/index.html
    -Data on Educational Attainment from the decennial Censuses through 2000 (data down to local block groups, from 1940-2000): http://www.census.gov/hhes/socdemo/education/data/census/index.html

Educational Attainment: Median Earnings (EVS ID ED01012- ED01016)

Recent Performance

This trend is mixed or inconclusive.

First of all, it is clear that higher levels of education result in higher levels of income. Erieites with a bachelor's degree averaged 26% higher median incomes than the average for all Erie residents in 2013, and those with more advanced degrees averaged 64% more than the Erie median.

Unfortunately, median incomes in Erie are typically below those of the peer areas, in line with what the Per Capita Income indicator (in the Economy section of Erie Vital Signs) tells us. But the median indicator lets us see if this pattern is consistent across all education levels. And it is.

While higher education typically means higher income, the returns to higher education levels are a bit less in Erie than in the peer areas. The median income for those with bachelor's degrees in Erie was only about 86% of the median in the peer areas; for those with more advanced degrees the number was only 84%. These differences are much greater than can be accounted for by the lower cost of living in Erie. (See the Cost of Living Indicator in the Economy section of EVS.) Unfortunately, this implies that there is often a financial incentive for those with higher education levels to leave the area. Their exodus—brain drain—would clearly be bad news for Erie's future.

Over time, these patterns have been pretty consistent, although there may be a bit of an uptrend in the return to bachelor's degree holders compared to peer areas, and unfortunately a bit of a downtrend to holders of degrees higher than the bachelor's level.

The Basics

This indicator reports the median income of residents over the past 12 months by various levels of education, showing the relationship between the two. The data are for residents 25 years old and over who had earnings. The median is the number with half of all incomes above it, and half of all incomes below it. It is different from the average (mean), which sums all incomes and divides by the number of people. The median is less affected than the average (mean) by a relatively few very large or very small numbers.

Why It's Important

Income is often considered the broadest measure of quality of life, and it is clear that income levels correlate highly with educational attainment.

The Details

These data come from the U.S. Census Bureau's American Community Survey. Their data are based on a sample and are subject to sampling variability. Educational attainment data are tabulated for people 18 years old and over; median earnings data are for those 25 years of age and older. Respondents are classified according to the highest degree or the highest level of school completed. The ACS survey question included instructions for persons currently enrolled in school to report the level of the previous grade attended or the highest degree received.

All the Nitty-Gritty Details

American Community Survey documentation:
http://www.census.gov/acs/www/data_documentation/documentation_main/
American Community Survey Subject Definitions:
http://www.census.gov/acs/www/Downloads/data_documentation/SubjectDefinitions/2013_ACSSubjectDefinitions.pdf

Subcategories
Educational attainment is broken into the following categories:
-   -less than a high school graduate
-   -high school graduate (includes equivalency)
-   -some college or associate's degree
-   -bachelor's degree
-   -graduate or professional degree

Peer areas
These variables include data on all 13 of the standard peer areas, along with U.S. data.

Frequency
Annual

Source
American Community Survey from the U.S. Census Bureau. One-year estimates. Table S1501, Educational Attainment.

⬇ PSSA Results (EVS ID ED02001- ED02010)

Recent Performance

This trend is negative or needs improvement.

PSSA results vary widely across school districts, and some are doing very well. But for the 2011-12 academic year the county-wide percentage of third grade students who were graded "Advanced" fell in both math and reading, and the percentage who were graded "Below Basic" rose in both math and reading. We clearly need to do better.

7.7% of third-graders rated "Below Basic" in math and 18.7% in reading, county wide. These were up from 6.2% and 15.9% respectively in the 2010-11 school year. The good news is that far larger percentages were graded "Advanced": 40.5% in math, and 22.8% in reading. But these were down from 45.6% and 25.6% respectively in the 2010-11 school year.

The 2011-12 Erie numbers also compared unfavorably with the statewide results:
- Math Advanced: Erie 40.5%, PA 43.6%
- Math Below Basic: Erie 7.7%, PA 6.6%
- Reading Advanced: Erie 22.8%, PA 27.2%
- Reading Below Basic: Erie 18.7%, PA 15.9%

The Basics

The Pennsylvania System of School Assessment (PSSA) tests are given to children in order to decide if their knowledge is up to the state's benchmark standards. Students are tested in different subjects in different grades. The Erie Vital Signs indicators include mathematics and reading scores of 3rd grade students in Erie County. This indicator reports data for each of the 13 school districts in the county. They tell the percent of students who met standards to be classified as Advanced, Proficient, Basic, or Below Basic for each subject.

Why It's Important

The PSSA scores provide a statewide standard by which students—and school districts—may be judged based on their performance. Education is crucial to the future of individuals and the region as a whole, so measuring performance of our schools is crucial to spotting potential problems—and opportunities.

The Details

From the PA Department of Education's website:
In 1999, Pennsylvania adopted academic standards for Reading, Writing, Speaking and Listening and for Mathematics. These standards identify what a student should know and be able to do at varying grade levels. School districts possess the freedom to design curriculum and instruction to ensure that students meet or exceed the standards' expectations.

The annual Pennsylvania System of School Assessment (PSSA) is a standards-based, criterion-referenced assessment used to measure a student's attainment of the academic standards while also determining the degree to which school programs enable students to attain proficiency of the standards. Every Pennsylvania student in grades 3 through 8 and grade 11 is assessed in reading and math. Every Pennsylvania student in grades 5, 8 and 11 is assessed in writing. Every Pennsylvania student in grades 4 and 8 is assessed in science.

In compliance with §4.51(b)(4) of the PA School Code the State Board of Education approved, "specific criteria for advanced, proficient, basic and below basic levels of performance."

All the Nitty-Gritty Details

Pennsylvania System of School Assessment (PSSA) website:
  http://www.portal.state.pa.us/portal/server.pt/community/state_assessment_system/20965/pennsylvania_system_of_school_assessment_(pssa)/1190526
PSSA history and performance descriptors:
  http://www.portal.state.pa.us/portal/server.pt/community/state_assessment_system/20965/p/1329706

Subcategories

For each of Math and Reading:
  -Advanced
  -Proficient
  -Basic
  -Below Basic

Peer areas

This indicator is provided for the 13 individual school districts in Erie County. No data are available for the 13 typical peer metro areas since the PSSA test is Pennsylvania-specific.

Frequency

Annual

Source

Pennsylvania Department of Education, PSSA test results:
  http://www.portal.state.pa.us/portal/server.pt/community/school_assessments/7442

Graduation Rates (EVS ID ED03001)

Recent Performance

This trend is mixed or inconclusive.

For the last four years, Erie County's average graduation rate has consistently been above the statewide average. For the 2013-14 school year, Erie's schools averaged an 87.0% graduation rate compared to the PA average of 85.3%. Erie's rate has varied in the 87% - 89% range over that time while PA was in the 83% - 85% range. The corresponding national rates have been 79% - 81%, so PA is beating the national rate, and most Erie school districts are beating it by a significant amount.

While graduation rates vary across Erie school districts, every district in the county beat the PA average in each of the last four years—except the City of Erie school district. Moreover, the City's graduation rate has been falling since its 2010-11 rate of 81.5%, down to the 2013-14 rate of just 73.2%. Clearly, the City's rate needs improvement. Of the other twelve school districts in the county, nine had graduation rates above 90% in 2013-14, with General McLane hitting a stellar 98.9%. Most Erie school districts are doing very well at getting our students through high school on time.

The Basics

This indicator is the "four-year cohort graduation rate" which measures the percentage of students that entered the high school as freshmen and graduated four years later with a regular diploma (not GED.) This measurement is used to determine how many students are continuing with their high school education to the end and finishing on time. It takes into account the number of students who have transferred into the graduating class as well as the number of students that have transferred out during the four years.

Why It's Important

We know that job prospects, income, and several other important measures are tied to a person's level of education. Dropping out of high school typically affects a student's prospects in a significant and negative way. Completing high school is also the prerequisite for further education. Therefore high school graduation rates are an important measure of how well a community is doing, and will do in the future.

The Details

The four-year cohort graduation rate measures students graduating in four years with a regular diploma (not GED). It is calculated as the number of graduates divided by (the number of first-time 9th graders four years earlier minus transfer out plus transfers in.)

All the Nitty-Gritty Details

PA Department of Education, *4-Year Cohort Graduation Rate Frequently Asked Questions:* at:
http://www.portal.state.pa.us/portal/server.pt/community/pennsylvania_department_of_education/7237/info/757639

Subcategories

None, although the database from the Pennsylvania Department of Education provides graduation rate data by gender, race/ethnicity, English Language Learners, Economically Disadvantaged, and Special Education students.

Peer areas

This indicator is provided for the 13 individual school districts in Erie County, as well as the State of Pennsylvania.

Frequency
    Annual

Source
    PA Department of Education, *4-Year Cohort Graduation Rate*,
        http://www.portal.state.pa.us/portal/server.pt/community/data_and_statistics/7202

⬇ **Educational Spending** (EVS ID ED04001)

Recent Performance

This trend is negative or needs improvement.

Erie County has historically fallen below the statewide average for educational spending, and the most recent data show that trend continuing. In fact, expenditure per pupil fell in Erie County by about 3.3% from the 2011-12 school year to 2012-13. At $12,792, expenditure per pupil was 12.5% less in Erie County than the statewide average of $14,622.

Per student expenditure varies dramatically across local school districts, from a high of $21,595 in the Iroquois district (48% above the PA average) to a low of $11,217 in the Girard district (23% below the PA average).

The Basics

This indicator measures total expenditure per student by school districts for the school year.

Why It's Important

Expenditures are one measure of education, but only one measure. And they are an *input* measure, telling the dollar amounts that taxpayers are putting into the education process in each school district. The usual assumption is that greater expenditure will result in more education, but there may be quite a bit of slippage between the inputs and the outputs in the education process. This is especially true since family support and social factors can play such an important role in a child's education outcomes.

On their own, expenditure data are not as useful as when they're combined with output measures of education—what those dollars help create, such as graduation rates and test scores. Comparing the two—output per dollar of input—would yield a type of productivity measure for a district.

The Details

Technically, the data are for total expenditures per "average daily membership" (ADM). ADM is the term used for all resident pupils of the school district for whom the school district is financially responsible. It is calculated by dividing the aggregate days membership for all children on active rolls by the number of days the school district is in session. "Total expenditures" includes expenditures with reference to the functional classifications of Instruction, Support Services, Operation of Noninstructional Services, Facilities Acquisition, and Other Financing Uses. The data are available for all school districts, which we have aggregated into totals for the county.

All the Nitty-Gritty Details

Detailed information on school districts' Annual Financial Report and ADR data are available at:
http://www.portal.state.pa.us/portal/server.pt/community/summaries_of_annual_financial_report_data/7673/afr_excel_data_files/509047
Glossary for expenditures terms:
http://www.portal.state.pa.us/portal/server.pt/community/summaries_of_afr_data/7673/glossary_for_expenditures/509030

Subcategories

This indicator has no subcategories, although the PA Department of Education does provide data on the various components of Total Expenditures.

Peer areas

This indicator is provided for the 13 individual school districts in Erie County, as well as the State of Pennsylvania.

Frequency
Annual

Source
The Pennsylvania Department of Education:
http://www.portal.state.pa.us/portal/server.pt/community/financial_data_elements/7672

Early Childhood Education Program Participation (EVS ID ED05001-11)

Recent Performance
This trend is mixed or inconclusive.

In Erie County, the total participation rate in education-based pre-school programs declined a bit in 2012-2013 from levels reported the previous school year, according to the most recent data. It is important to note, however, that total participation in the county remains much higher than the average early education participation rate across Pennsylvania; Erie's total participation rate was 57.3% while the Pennsylvania average was only 43.0%.

Participation trends vary among programs. While participation rates fell slightly for most programs, participation in Early Intervention and PA Pre-K Counts programs rose a bit in 2012-13 from the previous year.

The Basics
Early childhood education program participation measures the percentage of children under the age of 5 in an area that participate in various early education programs. For Erie County, there are nine programs (listed below) that are included. A child may be counted more than once if s/he participates in more than one of the early childhood education programs.

Why It's Important
A growing body of research underscores the importance of providing children with quality early education opportunities. Advances in brain research, for example, reveal that much of the brain's development occurs very early in a child's life and that stimulation and supportive relationships during those early years greatly influence that development. Several early childhood education programs, ranging from Head Start to Pennsylvania's Pre-K Counts, have generally shown promise in helping prepare children for school and a lifetime of learning. Every year, the state Office of Child Development and Early Learning measures county-specific participation rates across a number of those programs.

All the Nitty-Gritty Details
Information on PA early childhood programs: http://www.pakeys.org/pages/get.aspx?page=Programs

Subcategories
ECE programs included in this indicator:
- Child Care Works
- Early Intervention
- Head Start State and Federal
- Keystone Stars
- Nurse-Family Partnership
- Parent-Child Home Program
- PA Pre-K Counts
- Pre-K Funded PA PACT
- School-Based Pre-K

Peer areas
These indicators include data for the state as a whole, as well as five other Pennsylvania counties (Allegheny, Bucks, Delaware, Montgomery, and Philadelphia.)

Frequency
Annual

Source

PA Office of Child Development and Early Learning, Early Learning Keys to Quality Website, *Pennsylvania County Reach and Risk Assessment files*: http://www.pakeys.org/pages/get.aspx?page=EarlyLearning_Reach

Additional Studies and Research

PA Office of Child Development and Early Learning, *Early Learning in Pennsylvania*: http://www.pakeys.org/pages/get.aspx?page=EarlyLearning

Timothy J. Bartik, *Investing in Kids: Early Childhood Programs and Local Economic Development.* Kalamazoo, MI: W.E. Upjohn Institute (2011). Information here.

Investing in Kids blog by Timothy Bartik.

Early Childhood Education – Risk Factor Comparison

-% of children under 5 below poverty level/economically high risk families (100% FPL) (EVS ID ED06001)
-% of children under 5 low income/economically at risk families (300% FPL) (EVS ID ED06002)
-% of children under 5 receiving free/reduced lunch (EVS ID ED06003)
-% of children born to young and single mothers (EVS ID ED06004)
-% of births to mothers with less than a high school degree (EVS ID ED06005)
-% below proficient in math 3rd grade PSSA (EVS ID ED06006)
-% below proficient in reading 3rd grade PSSA (EVS ID ED06007)

Recent Performance

This trend is negative or needs improvement.

In Erie County, the statistical trends suggest that all of these risk factors are a concern for our young children. For the 2012-13 school year, every one of the seven factors registered higher rates of incidence in Erie county than in the state as a whole. The depth of Erie's challenge is starkly apparent when the county's indicators are compared with the data for Bucks and Montgomery counties, in suburban Philadelphia, where the risks for young children are among the lowest in the state.

Moreover, four of the seven risk factors increased in Erie in the 2012-13 school year: the percentage of children under five living in economically at risk or high risk families, the percentage of children under five receiving free or reduced price lunches, and the percent of third graders who scored below "proficient" on their PSSA math test. Two of the factors improved a bit: the percent of babies born to teenage mothers, and the percent of third graders who scored below "proficient" on their PSSA reading test.

The Basics

These indicators provide data on the percent of Erie's children that are exposed to various risk factors that research suggests could hinder their education.

Why It's Important

Several family and community factors can have a negative impact on learning and a child's chances of succeeding in school, including poverty, low family income, having a young, single parent whose educational attainment is low and poor academic performance in the early grades. Tracking these factors can give an early warning signal for kids who will be in school in a few years.

The Details

While the first five indicators all warn of potential risks to the child's education, the last two (3rd grade PSSA scores) give some feedback on problems that have actually arisen.

Subcategories

-% of children under 5 below 100% of the federal poverty level--economically high risk families
-% of children under 5 low income (below 300% of the federal poverty level)--economically at risk families
-% of children under 5 receiving free/reduced lunch
-% of children born to young and single mothers
-% of births to mothers with less than a high school degree
-% below proficient in math on the 3rd grade PSSA
-% below proficient in reading on the 3rd grade PSSA

Peer areas

These indicators include data on Erie, Bucks, and Montgomery Counties, as well as the Pennsylvania Average.

Frequency
    Annual

Source
    PA Office of Child Development and Early Learning, Early Learning Keys to Quality Website, *Pennsylvania County Reach and Risk Assessment files*: http://www.pakeys.org/pages/get.aspx?page=EarlyLearning_Reach

⬇ Post-Secondary Activity (EVS ID ED07001-06)

Recent Performance

This trend is negative or needs improvement.

The percentage of Erie County high-school graduates who plan to pursue post-secondary education had remained at about 75% from 2004 to 2010. But since then it has been sliding, hitting just 70.7% for the class of 2013-14. A similar pattern occurred in the statewide data, but the most recent PA data showed a possible reversal of the trend.

Students' plans vary widely across school districts in the county, with just 55.6% of Corry grads planning to pursue further education, compared to 82.3% of Fairview students. Students from those two districts will most likely have quite different futures, on average.

This trend does not bode well for Erie County. While there are probably jobs available for those without post-secondary education, many of those jobs tend to have lower pay and be slower-growth occupations.

The Basics

This indicator provides information about the plans of students in public schools after they complete high school, telling us how many plan to continue their education and to what extent.

Why It's Important

Knowing students' plans can give use a clue to the future educational attainment of the area, which impacts the local work force in coming years. Since education is highly correlated with income, output, unemployment rates, and many other key variables, this indicator can serve as an early-warning sign for potential future problems. Although students may change their minds in the course of their education, their initial plans give a good idea of how Erie's educational attainment may change in a few years. It also helps us see if high school students understand that their personal futures are tied closely to the education they choose to acquire.

The Details

The Pennsylvania Department of Education provides a compilation of statistical information covering high school graduates in Pennsylvania's public schools. Pennsylvania's public high schools with enrollment in grade 12 (including secondary ungraded) provide the graduate data through the Pennsylvania Information Management System (PIMS). In prior years, this data was collected via the Electronic Dropout/Graduate Report (EDGR) web-based system. These reports provide information on intended post-high school activity of graduates, including college bound students.

For these data, a high school graduate is a student who has received a diploma. Students earning high school credentials by obtaining a General Educational Development (GED) diploma are not considered graduates for the purpose of the Graduate data.

Subcategories

% Postsecondary Bound
   % College-Bound
      % 2- or 4-Year College or University
      % Specialized Associate Degree-Granting Institution
   % Non-Degree-Granting Postsecondary School

Peer areas

This indicator is provided for the 13 individual school districts in Erie County. No data are available for the 13 typical peer metro areas since these data are Pennsylvania-specific.

Frequency
　　Annual

Source
　　Pennsylvania Department of Education, Graduate Data and Statistics:
　　　　http://www.portal.state.pa.us/portal/server.pt/community/graduates/7426

NOTE: If there is a problem with the data/widget for this indicator, you may choose to insert this static graph.

% Postsecondary Bound

Y-axis: **Percent of Graduates** (64 to 78)

X-axis: 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014

Legend: Erie (red), PA (green)

Endpoint labels: 72.4, 70.7