



ERIE

Guide to the Erie Economy

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ERIE
Economic Research
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The *ERIE* Guide to the Erie Economy

Third Edition, 2011

Prepared and updated by
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Providing information on and analysis of the Erie economy since 1982.

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Table of Contents

INTRODUCTION.....	1
A Brief Guide to the <i>GUIDE</i>.....	2
Size of the Erie County Economy	3
Land Area.....	3
Population	3
Employment	4
Number of Nonfarm Business Establishments in 2008	4
Income.....	4
Output of Goods and Services Produced	4
Population	5
Erie County Population	5
Erie, PA, and U.S. Population Indexes	6
Erie and U.S. Population Growth Rates, 1970-2010	6
Race	7
Racial Distribution of Population, Erie and U.S., 2009	7
Race Location Quotients for 2009.....	7
Age	8
Age Distribution of Population, Erie and U.S., 2009	8
Migration.....	9
Migration into and out of Erie County, 1995 - 2000	9
Destination of Erie Out-Migrants by State, 1995-2000	9
Destination of Erie Out-Migrants by Region, 1995-2000	10
Top 15 Destination Counties of Erie Out-Migrants, 1995-2000.....	10
Origin of Erie In-Migrants by State, 1995-2000.....	11
Origin of Erie In-Migrants by Region, 1995-2000.....	11
Top 15 Origin Counties of Erie In-Migrants, 1995-2000	12
Nine Counties on Both the Top Origins and Top Destinations Lists	12
Personal Income	13
Erie County Personal Income	14
Components of Erie Personal Income, 2009	15
Sources of Erie’s Income, 1969 – 2009	16
Sources of Erie and U.S. Income, 1969-2009	17
Erie Income Sources Compared to the U.S., 1969-2009	18
Income Per Capita.....	19
Erie County and U.S. Income Per Capita	19
Erie County and U.S. Real Income Per Capita	20
Erie County Income Per Capita as a % of U.S. Income Per Capita	21
Cost of Living	22
Metro Cost of Living Comparison.....	22
Erie Cost of Living Components.....	23
Poverty.....	24
Erie County and U.S. Poverty Rates.....	24
Poverty by Age, Sex, and Race, 2009	25
Poverty by Educational Attainment, Employment Status, & Work Experience, 2009.....	26

Welfare Assistance	27
Erie County, PA, and U.S. Total Aid Per Capita	27
Mortgage Foreclosures	28
Foreclosure Rates: Erie County & Selected Nearby Metro Areas	28
Bankruptcies	29
Northwest Pennsylvania Bankruptcies.....	29
Labor Force	30
Erie Labor Force	30
Erie, PA and U.S. Labor Force Indexes.....	31
Erie County and U.S. Labor Force as a Share of Total Population	32
Erie County Top 50 Employers	33
Employment.....	34
Erie County Total (Nonfarm) Employment	34
Industry Definitions and Redefinitions.....	35
2007 NAICS Industry Categories.....	35
Erie County Manufacturing and Non-Manufacturing Employment.....	36
Major Components of the Goods-Producing and Service-Providing Industries	37
Erie County Service-Providing and Goods-Producing Employment.....	38
Erie County Durables and Non-Durables Employment through 2006	39
Erie and U.S. Employment Index.....	40
Unemployment	41
Erie and U.S. Unemployment Rates	41
Discouraged Workers	42
U.S. Discouraged Workers.....	42
Industry Employment	43
Erie County Industry Employment (% of Total), 2009.....	43
Erie County and U.S. Industry Employment (% of Total), 2009.....	44
Erie County Industry Employment Relative to U.S., 2009	45
Industry Income	46
Erie County Industry Income (% of Total), 2009.....	46
Erie County and U.S. Industry Income (% of Total), 2009.....	47
Erie County Industry Income Relative to U.S., 2009.....	48
Erie Employment and Income Location Quotients, 2009.....	49
Average Wage	50
Erie County and U.S. Average Annual Compensation Per Job.....	50
Business Startups.....	51
Erie County Business Startups and Closures	51
Business Establishment Startups per 100,000 Population	51
Business Startups for Selected Industries, 2006-07	52
Minority-Owned and Woman-Owned Businesses.....	53
Percentage of Businesses Owned by Gender and Race Groups, 2007	53
Percentage of Sales and Receipts by Gender and Race Groups, 2007	54
Education.....	55
Education Levels and Lifetime Expected Income	55
Erie County and U.S. Educational Attainment, 2009	56
Erie County Total Elementary/Secondary School Enrollment	57

Erie County SAT Scores, 2010	58
Erie County High Schools Ranked by 2010 Total SAT Score	58
Erie County Total College/University Enrollment	59
Erie County and U.S. College/University Enrollment Index	59
Erie County Post-Secondary Degrees Granted	60
Erie County Post-Secondary Degrees Granted, 2009-10.....	60
Erie County vs. U.S. College/University Enrollment, 2009	61
Index of Educational Services Earnings, Erie and U.S.	61
Erie County and U.S. Education Earnings as a % of Total Earnings.....	62
Erie County and U.S. Education Earnings Location Quotients	63
The Retail Industry	64
Erie County, PA, and U.S. Retail Establishments.....	64
Erie County, PA, and U.S. Employment	64
Retail Sales: Erie County, PA and U.S	65
Erie County and PA Retail Industry Sales Location Quotients	65
Agriculture	66
Erie County, PA, and U.S. Agriculture Overview	66
Erie County and PA Farm Employment Location Quotients	66
Erie County and PA Farm Earnings Location Quotients.....	67
Erie County Harvested Crop Acres, 2007	68
Erie County Animals and Animal Products Sales, 2007	69
The Tourism Industry	70
Erie County Tourism Employment, 2002	70
The Tax Impact of Tourism on Erie Residents.....	71
Commuting	72
Erie and U.S. Average Travel Time to Work.....	72
Erie City and Erie County	73
Population	73
Erie City Population as a Percent of Erie County Population	74
Employment Index	75
Unemployment Rates.....	76
Crime.....	77
Number of Crimes Reported	77
Crimes Per Thousand Residents	77
Crime Index	78
ERIE Special Studies	79
Brain Drain: Are We Keeping Our College Graduates?.....	79
Income Inequality, 2000	80
Erie Recession Facts	81
Employment Change During Nine Erie Recessions.....	81
Decline and Recovery in Nine Erie Recessions	82
APPENDIX A: NAICS Industries.....	83
Economic Research Institute of Erie (ERIE)	86
<i>Background</i>	86
<i>ERIE'S Activities</i>	87
<i>ERIE Research Reports</i>	89
<i>ERIE Personnel</i>	92
<i>Student Research Assistants</i>	93
<i>How to Contact ERIE</i>	94

INTRODUCTION

Welcome to the third edition of the *ERIE Guide to the Erie Economy!* We released this third edition of the *Guide* at the 9th ERIE Economic Conference in July of 2011. The first edition was released at the 6th ERIE Economic Conference in August 2007, in celebration of 25 years of the Economic Research Institute of Erie—25 years of ERIE in Erie. And we're happy to update it this year where possible and expand it to include some new topics, such the sources of Erie residents' incomes and how they've changed through time, and information on the retail and farming industries. And we've also added happy and topical issues such as foreclosures, bankruptcies, and discouraged workers. (Who says Econ is the Dismal Science?)

Given the complexity of the Erie economy, the *Guide* cannot claim to cover everything you might want to know about the economy. But it does include information on many of the most important elements of the economy. If you're an Erieite you'll probably find data here to confirm some things you knew about the Erie area, and about other things that you suspected. But we think you'll also find some surprises here.

For example, did you know that:

- the last recession was rather mild in Erie, compared to our average recessions—even though it was the most severe recession at the national level since the Great Depression.
- Erie has a significantly greater proportion of its economy working in the education sector than the nation as a whole, and a larger proportion of the population who are college students. Erie is a college town!
- An Erieite would need to earn nearly 2.4 times as much as she does in Erie if she wanted to live in Manhattan and keep the same standard of living as she has in Erie. (And forget about having an actual yard!)
- The average Erieite saves more than 50 hours a year in commuting time compared to the average American. That's the equivalent of more than a week's extra vacation if you live in Erie, not to mention the gas savings!
- Since 1969, real (inflation adjusted) welfare payments per person have risen 731% in Erie County, compared with growth of about 56% in real income.

There are more interesting tidbits to be found in the *Guide*.

If you don't find just what you're looking for here, we recommend that you try our website: www.ERIEdata.org. If you still can't find what you want, give us a call at 898-7149 or email us at k12@psu.edu. We may be able to help. And we welcome ideas for things to add to the next edition of the *Guide*.

As you peruse the *Guide*, you may find yourself saying "I wonder why..." Good! That's the beginning of understanding. Please feel free to share your ideas and questions with us. Sometimes we have inquisitive students who are looking for research topics. And if your question requires serious thought by experienced scholars, perhaps we can discuss a sponsored research project.

We also welcome donations that will help us continue to explore the Erie economy, and give students an opportunity to learn how to do serious analysis by working on real problems with real data.

A Brief Guide to the *GUIDE*

This *Guide* focuses on the Erie economy. But which “Erie”?

Our focus is on the Erie metro area, (technically the Erie Metropolitan Area or MA) which the federal government officially defines to be Erie County. We think this makes sense since a metro area is a small economy, and that is most appropriately based on a labor market. If defined correctly, most of the people who work there live within its boundaries, and most of the people who live there also work there. There will be some commuting across borders, but that will be a small amount compared to what goes on within the borders. And Erie County fits that bill nicely, thank you.

For some purposes, it’s useful to look at data for the City of Erie. The *Guide* gives some information about the City compared to the County. And for some purposes, it makes sense to look at Erie as the focus of the Northwest Pennsylvania region. We sometimes have occasion to study this broader region, but in most cases we have typically chosen not to include regional data in the *Guide* to keep its size manageable.

So when the *Guide* uses the term “Erie”, it means Erie County—all activity that takes place within the county borders on whatever item of data is being discussed. When we are talking about the City of Erie, we make a point of using the term “city”.

The *Guide* typically presents information about some aspect of the Erie economy, explores how that item of data has changed through time, and then compares it to the national average. Sometimes it will also present data for the state of Pennsylvania or the City of Erie. To help the reader know just what geographic or political unit we’re talking about, we consistently use **blue** to identify **Erie (County)**, **red** for the **U.S.**, **green** for **Pennsylvania**, and **orange** for the **City of Erie**. But each graph is labeled, so you need not try to remember this.

Virtually all of the data presented in the *Guide* are from official government sources. Most of the data are from the federal government, from units like the Census Bureau, the Bureau of Economic Analysis, and the Bureau of Labor Statistics. Some are from the State of Pennsylvania. Very few are data that we have generated ourselves, and these are mostly found in the Special Studies section of the *Guide*. In other words, we’re not creating these numbers ourselves; they’re typically coming straight from the horse’s mouth. We typically document the data sources throughout the *Guide*, but if you have a question about data sources please feel free to contact us.

There are many other data items we could have added, but we had to stop somewhere. We hope you find this third edition of the *ERIE Guide to the Erie Economy* to be useful and thought provoking, and that you find yourself turning to it often as you make decisions about your business, your life, and the Erie area.



Source: <http://www.usgwarchives.org/maps/pa/county/erie/usgs/> which also has links to township maps.

Size of the Erie County Economy

Land Area

- ▶ 801.95 square miles
- ▶ Technically, Erie County also includes water area halfway across Lake Erie to Canada. The water area is another 756.46 square miles, for a total of 1,558.41 square miles.

Source: U.S. Census Bureau, American FactFinder, Table GCT-PH1:
http://factfinder.census.gov/servlet/GCTTable?_bm=y&-geo_id=04000US42&-_box_head_nbr=GCT-PH1&-ds_name=DEC_2000_SF1_U&-format=ST-2

Population

- ▶ 280,291 total residents in 2009
- ▶ Density: 349.5 people per square mile
 - National average density: 86.8 people per square mile.

Source: U.S. Census Bureau, Annual Population Estimates: <http://www.census.gov/popest/counties/CO-EST2009-01.html>

Employment¹

130,100 in May 2011 (Based on the Bureau of Labor Statistics' Establishment Survey—a count of jobs)

127,636 in May 2011 (Based on the Bureau of Labor Statistics' Household Survey—a count of people)

156,513 in 2009 (Based on the Bureau of Economic Analysis' Regional Economic Information System)

Number of Nonfarm Business Establishments in 2008

6,587 establishments with employees

14,220 nonemployer establishments²

20,807 total business establishments

Source: U.S. Census Bureau: County Business Patterns: <http://www.census.gov/econ/cbp/> and Nonemployer Statistics: <http://www.census.gov/econ/nonemployer/index.html>

Income

Aggregate Personal Income³, 2009: \$ 9,141,718,000 in 2009—over \$9.14 billion

Income Per Capita, 2009: \$32,615 for every man, woman and child in the county

Total Earnings⁴ of those who work in Erie County, 2009: \$ 6,337,446,000

Source: U.S. Bureau of Economic Analysis: <http://www.bea.gov/regional/index.htm>

Output of Goods and Services Produced

Gross Metro Product: \$9.4 billion in 2009

Erie's output is greater than that of 183 of the U.S.'s 363 metro areas

Gross Metro Product: \$9.5 billion in 2008

Erie's output is greater than that of 186 of the U.S.'s 363 metro areas

Erie's output is greater than the Gross Domestic Product of 61 countries of the world

Source: U.S. Conference of Mayors: <http://usmayors.org/metroeconomies/>

¹Employment counts vary from program to program depending on coverage of the program (whether the program covers self-employed workers, those not subject to unemployment insurance, agriculture workers, etc.), whether the program counts jobs or people (since one person can hold more than one job), by place of work or place of residence (how commuters are treated), all workers or full-time equivalents, and unpaid family workers. Different data series are useful for different purposes, since some provide industry detail, others occupational detail, some are more timely, others are more detailed or more frequent, etc. Of the employment estimates given above, the Household Survey provides information on residents of the County at their place of residence, and the Establishment Survey provides data at the place of work.

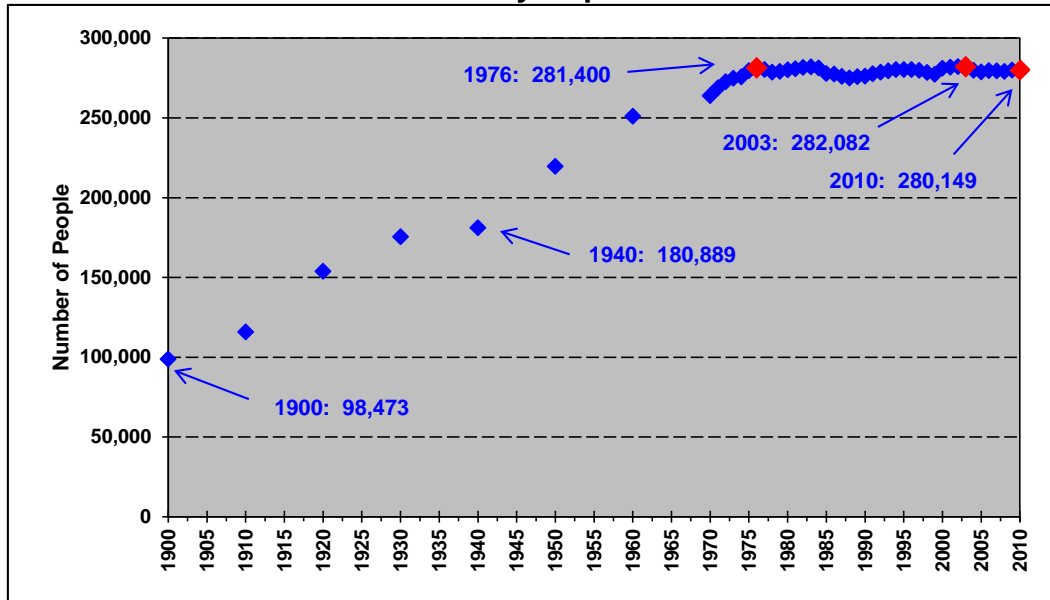
² A nonemployer business is one that has no paid employees, has annual business receipts of \$1,000 or more (\$1 or more in the construction industries), and is subject to federal income taxes. Nonemployer businesses are generally small, such as real estate agents and independent contractors. Nonemployers constitute nearly three-quarters of all businesses nationally, but they contribute only about three percent of overall sales and receipts data.

³ Personal income is the income that is received by persons from all sources. It is calculated as the sum of wage and salary disbursements, supplements to wages and salaries, proprietors' income, rental income of persons, personal dividend income, personal interest income, and personal current transfer receipts, less contributions for government social insurance.

⁴ Earnings by place of work is the sum of wage and salary disbursements, supplements to wages and salaries (employer contributions for employee pension and insurance funds and of employer contributions for government social insurance including old-age, survivors, and disability insurance (OASDI); hospital insurance; unemployment insurance; railroad retirement; government employee retirement; pension benefit guaranty; veterans life insurance; publicly-administered workers' compensation; military employee programs (veterans life and military medical insurance); and temporary disability insurance), and proprietors' income. Note that it's different from personal income in that it excludes some sources of income (the "non-earned" types) and includes the contributions (taxes) for government social insurance programs.

Population

Erie County Population

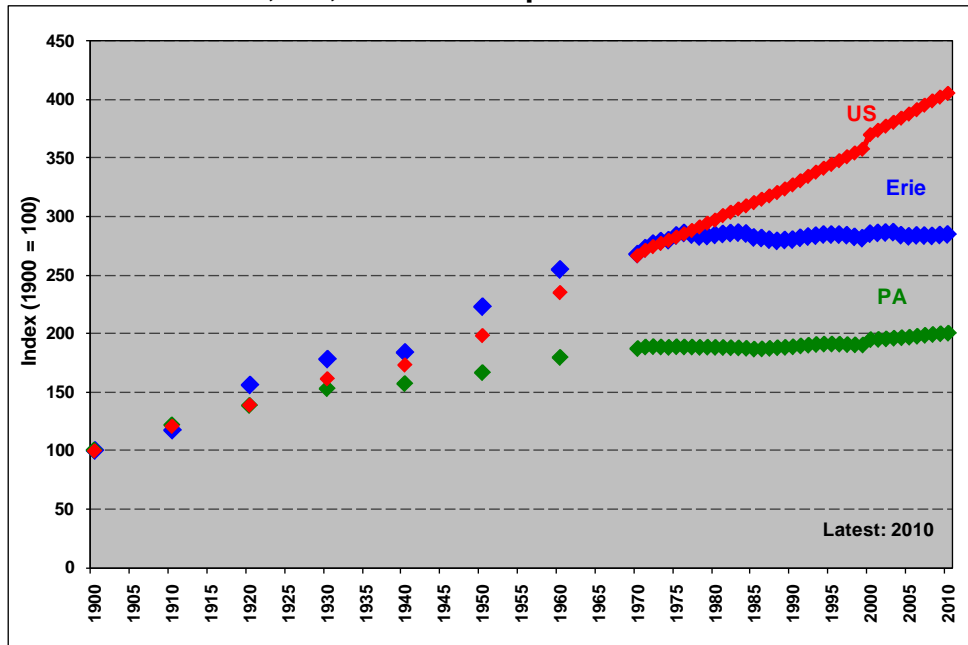


Source: U.S. Census Bureau, Population Estimates Program

Population Estimates	Erie County	Pennsylvania	United States
July 1, 2010	280,149	12,632,780	309,050,816
July 1, 2009	279,645	12,602,112	306,656,290
July 1, 2008	278,911	12,562,536	304,177,401
July 1, 2007	279,194	12,517,701	301,393,632
July 1, 2006	279,357	12,466,485	298,431,771
July 1, 2005	278,541	12,415,908	295,618,454
July 1, 2004	279,509	12,387,357	292,936,109
July 1, 2003	282,082	12,360,988	290,242,027
July 1, 2002	281,767	12,324,237	287,745,630
July 1, 2001	281,458	12,296,977	285,049,647
July 1, 2000	280,795	12,283,881	282,165,844
Census (Actual Count)			
April 1, 2010	280,566	12,702,379	308,745,538
April 1, 2000	280,843	12,281,054	281,421,906

- ▶ Erie County population stood at just less than 100,000 in 1900. By the mid-1940s it had reached 200,000.
- ▶ Erie County population grew consistently until 1976 when it reached 281,400.
- ▶ The population level has remained relatively constant since 1976, rising and falling slightly from year to year.
- ▶ Erie's maximum population occurred at 282,082 in 2003.
- ▶ The decennial census in 2010 shows a slight decline in Erie population from 2000. The only other time Erie had a drop in a decennial census was from 1980 to 1990, when population fell from 279,780 to 275,795. There was a recession during much of the 1980s.
- ▶ The Census Bureau estimates that Erie's population actually rose a bit in the last couple of years. Its most recent low was in 1988 at 274,732. We're up over 5,000 since then.
- ▶ In 2010, one in every 45 people in PA lived in Erie county, and one in every 1,103 Americans. In 1900 it was one in every 64 Pennsylvanians, and one in every 774 Americans.

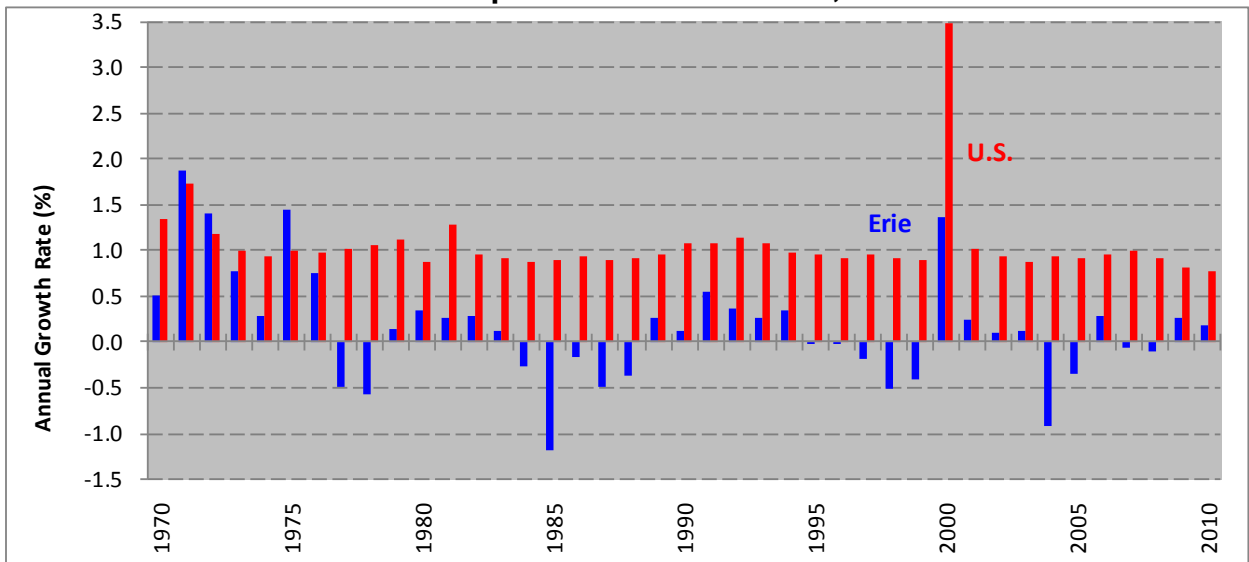
Erie, PA, and U.S. Population Indexes



Source: U.S. Census Bureau, Population Estimates Program

- ▶ In the 1910s and the 1940s Erie grew at a more rapid rate than the U.S., and Erie outgrew PA in every decade between 1910 and 1980.
- ▶ Starting in the mid-1970s, population growth in Erie and Pennsylvania slowed, and population has remained relatively constant through 2010.
- ▶ The U.S. population has continued to grow throughout the country's history.

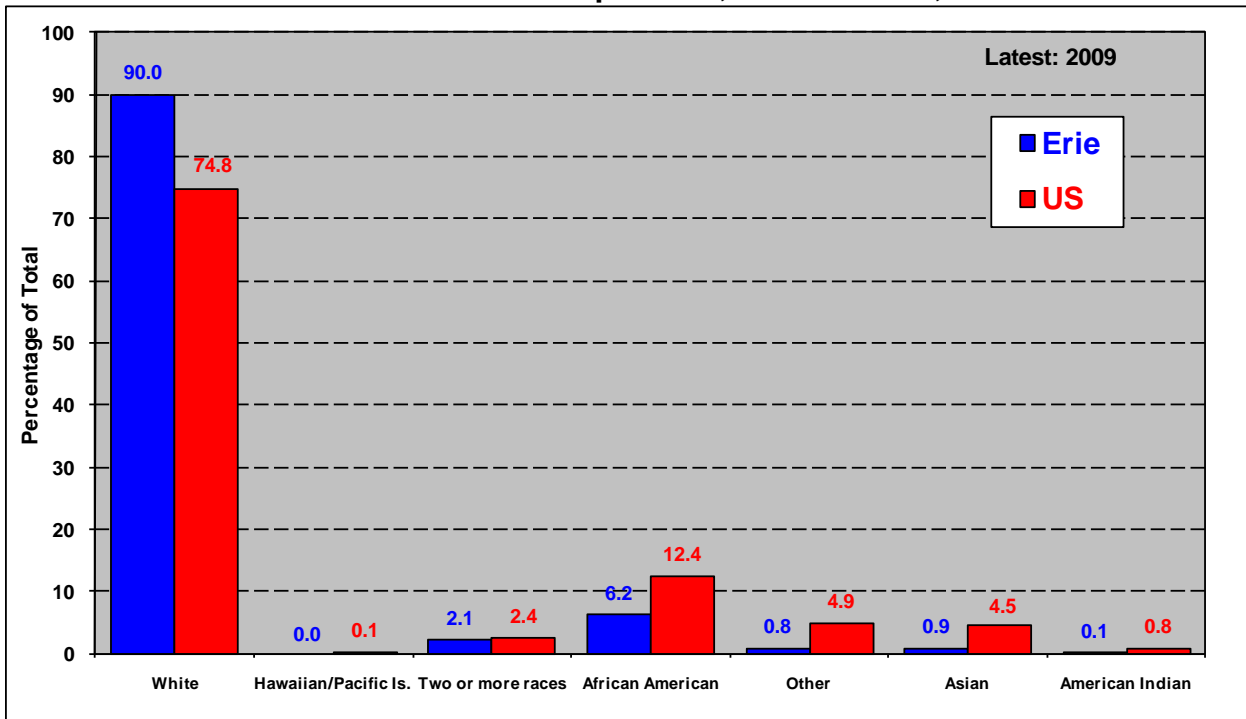
Erie and U.S. Population Growth Rates, 1970-2010



Source: calculated from U.S. Census Bureau, Population Estimates data

Race

Racial Distribution of Population, Erie and U.S., 2009



Source: U.S. Census Bureau, American Community Survey

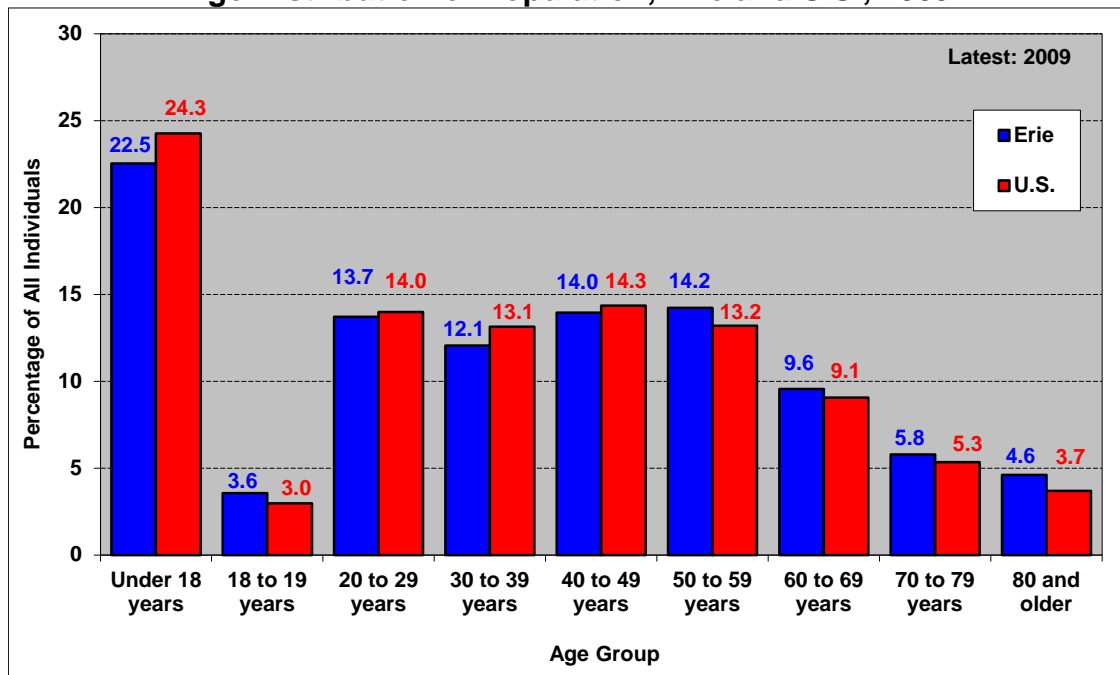
- ▶ Erie’s population is clearly less racially diverse than the national average.
- ▶ In 2009, Erie County’s population included 90% White residents. At the national level, the percent White was only about 75%.
- ▶ Erie’s population had half of the national proportion of African American residents, and significantly smaller shares of American Indian, Asian and other races.
- ▶ Comparing Erie and U.S. percentages in each race can be accomplished by calculating Location Quotients (LQs). The LQ is simply the Erie percentage in a race divided by the U.S. percentage in that race. A LQ greater than 1.0 means that Erie has a more than proportional representation in that racial group; a LQ less than one means the opposite.
- ▶ The Location Quotient data show that Erie has more than its share of White residents, and less than its share of all the other racial categories.

Race Location Quotients for 2009

Race	Erie		US		Location Quotient
	#	%	#	%	
White	252,371	90.0	229,773,131	74.8	1.20
Hawaiian/Pacific Is.	0	0.0	454,001	0.1	0.00
Two or more races	5,844	2.1	7,505,173	2.4	0.85
African American	17,252	6.2	38,093,725	12.4	0.50
Other	2,194	0.8	14,948,363	4.9	0.16
Asian	2,393	0.9	13,774,611	4.5	0.19
American Indian	237	0.1	2,457,552	0.8	0.11
Total	280,291	100.0	307,006,556	100.0	1.00

Age

Age Distribution of Population, Erie and U.S., 2009



Source: U.S. Census Bureau, American Community Survey

- ▶ The age distribution of the Erie County population tends to mirror that of the nation, with a few exceptions.
- ▶ Erie's percentages in the under 50 age groups tended to be lower than the U.S. percentages except in the 18 to 20 age group.
- ▶ Erie's percentages in the over 50 age groups were above the U.S. percentages—Erie is grayer than the U.S. as a whole.
- ▶ The largest disparity between the U.S. and Erie in the younger age groups was for the under 18 age group. Erie had 22.53% in this group while the U.S. had 24.27%. To put this in perspective, a 1.74% difference translates to Erie having 4,866 fewer kids than might be expected from national data.
- ▶ Location quotients greater than one in the table below show the age categories in which Erie had more than the national average.

Age Location Quotients for 2009

Age Group	Erie		US		Location Quotient
	#	%	#	%	
Under 18 years	63,148	22.5	74,496,983	24.3	0.93
18 to 19 years	9,980	3.6	9,137,494	3.0	1.20
20 to 29 years	38,450	13.7	42,944,914	14.0	0.98
30 to 39 years	33,795	12.1	40,328,948	13.1	0.92
40 to 49 years	39,114	14.0	44,039,759	14.3	0.97
50 to 59 years	39,869	14.2	40,532,426	13.2	1.08
60 to 69 years	26,781	9.6	27,828,927	9.1	1.05
70 to 79 years	16,235	5.8	16,388,670	5.3	1.09
80 and older	12,919	4.6	11,308,435	3.7	1.25
Total	280,291	100.0	307,006,556	100.0	1.00

Migration

The 2000 Census questionnaire asks about the respondent's residency in 1995 and 2000. From these data the Census Bureau is able to construct county-to-county migration statistics. The table below tells the story. Nearly 27,000 people moved into Erie County during the five-year period, almost 10% of the 1995 population. But nearly 32,000 moved out, for a net migration of 4,791 out of the county, or 1.7% of the 1995 population.

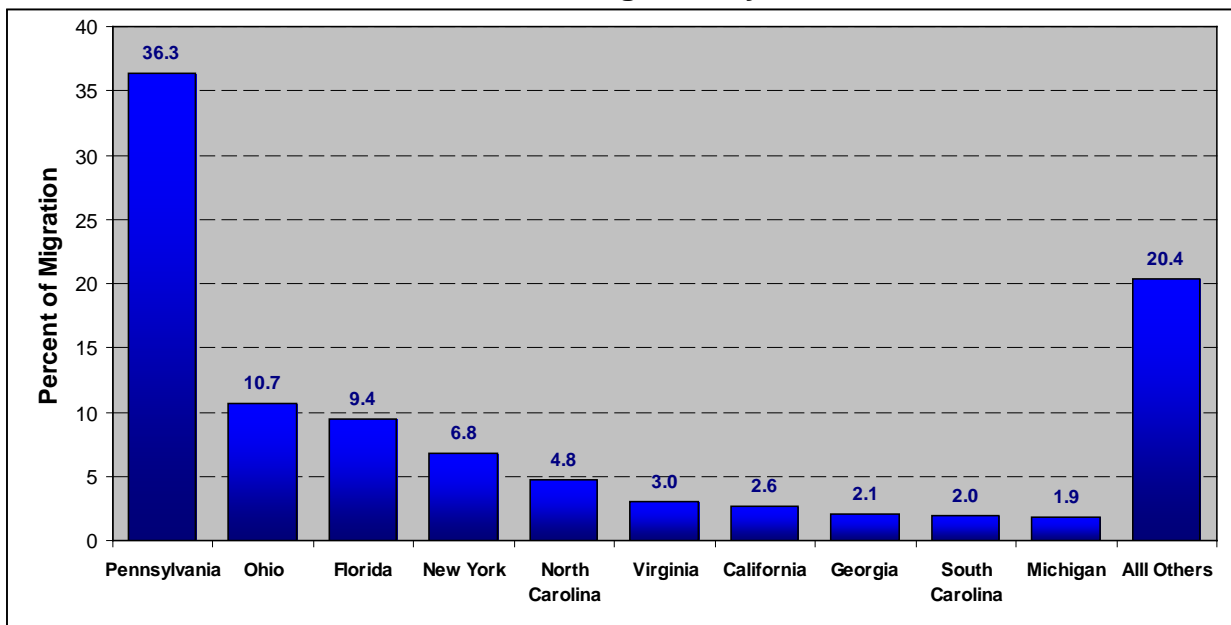
Migration into and out of Erie County, 1995 - 2000

	Number of People	Migration Rates*
Migration inflow to Erie County (1995 to 2000)	26,854	9.59
Migration outflow from Erie County (1995 to 2000)	31,645	11.30
Net flow of migration in Erie County	-4,791	-1.71
Population of Erie County in 1995	280,044	
Population of Erie County in 2000	280,843	

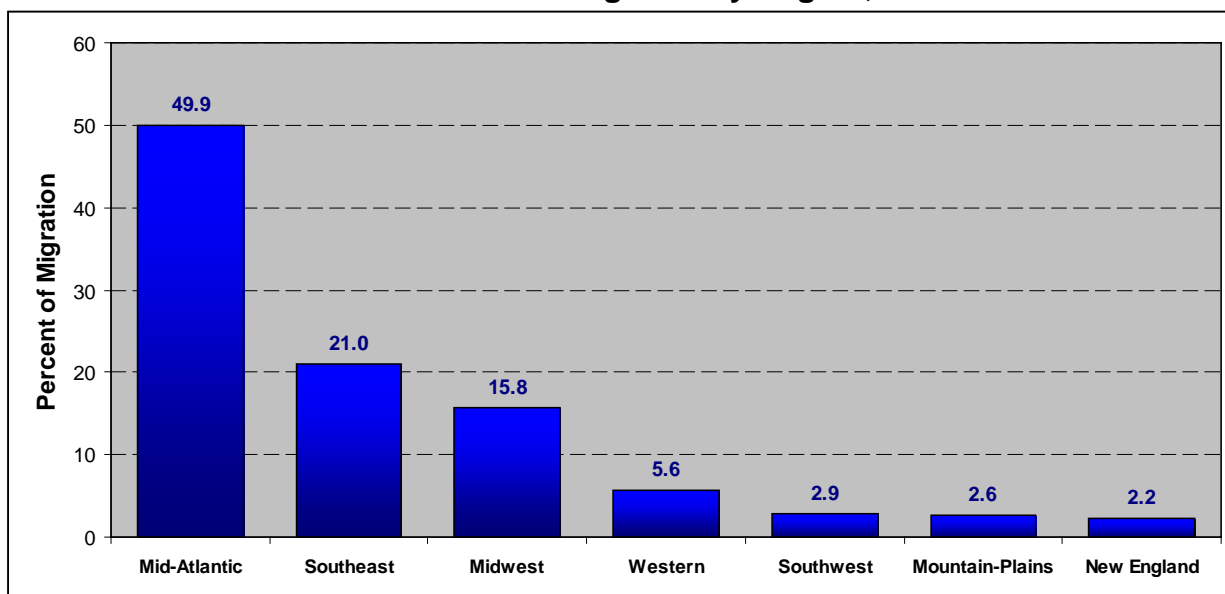
*Based on 1995 population

Where did those 32,000 former Erieites go?

Destination of Erie Out-Migrants by State, 1995-2000



Destination of Erie Out-Migrants by Region, 1995-2000



- ▶ Over 36% of individuals that moved out of Erie County moved to other counties within the state of Pennsylvania
- ▶ The two states that border Erie County, Ohio and New York, accounted for 10.7% and 6.8% of the individuals who left Erie County, respectively.
- ▶ Approximately 53% of individuals who left Erie County moved to other counties within the tri-state area (Ohio, Pennsylvania, New York).
- ▶ Florida, North Carolina and Virginia also took in significant amounts of individuals who left Erie County.
- ▶ Almost half of the individuals who left Erie County moved to states in the Mid-Atlantic Region (of which PA is a part.)
- ▶ The Southeast took in the second largest amount of Erie emigrants (21.0%), followed by the Midwest (15.8%).

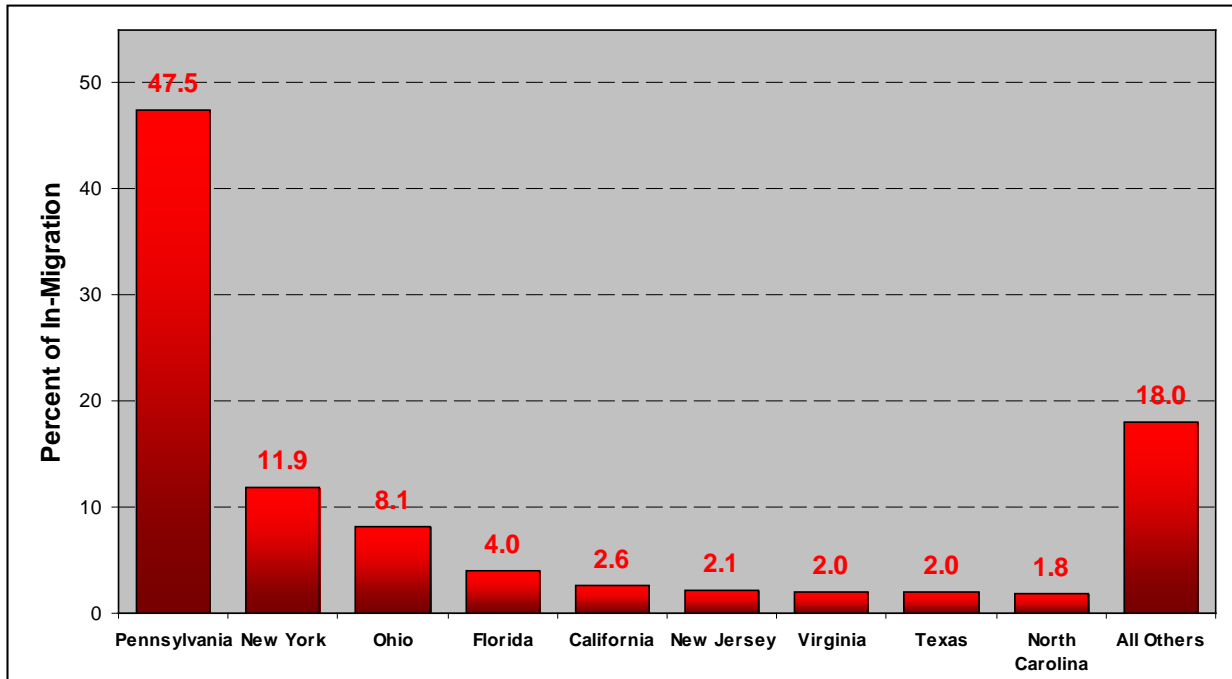
Top 15 Destination Counties of Erie Out-Migrants, 1995-2000

County and State in 2000	Out Flow
Crawford County, Pennsylvania	2,271
Allegheny County, Pennsylvania	1,799
Chautauqua County, New York	811
Cuyahoga County, Ohio	687
Warren County, Pennsylvania	676
Philadelphia County, Pennsylvania	673
Centre County, Pennsylvania	486
Butler County, Pennsylvania	449
Wake County, North Carolina	393
Erie County, New York	382
Maricopa County, Arizona	360
Ashtabula County, Ohio	347
Mercer County, Pennsylvania	328
Fayette County, Pennsylvania	320
Pinellas County, Florida	309

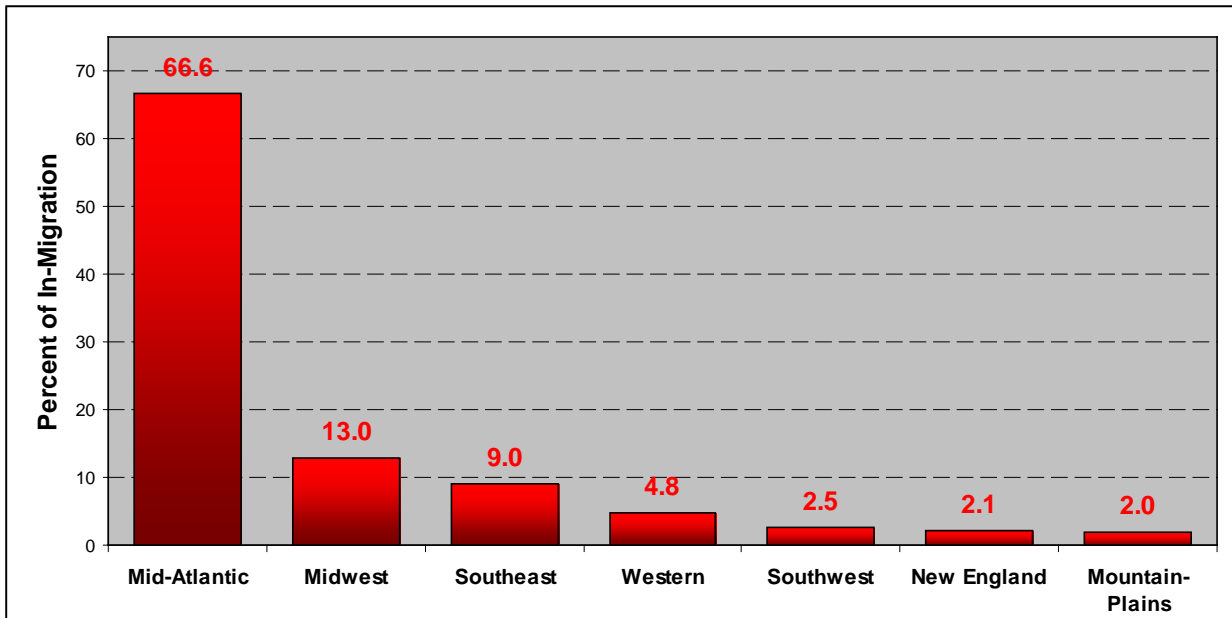
- ▶ Crawford County, PA was the destination county of the greatest amount of individuals who left Erie County between 1995 and 2000.
- ▶ Of the top 15 counties, 8 were in Pennsylvania, 2 were in Ohio, and 2 were in New York. North Carolina, Arizona and Florida rounded out the top 15.

And where did the 27,000 In-migrants come from?

Origin of Erie In-Migrants by State, 1995-2000



Origin of Erie In-Migrants by Region, 1995-2000



- ▶ Over 47% of individuals that moved to Erie County moved from other counties within the state of Pennsylvania
- ▶ The two states that border Erie County, Ohio and New York, accounted for 11.9% and 8.1% of the individuals who moved to Erie, respectively.

- ▶ Over 67% of individuals who moved to Erie County moved from other counties within the tri-state area.
- ▶ Significant numbers of individuals moved to Erie County from Florida, California, New Jersey, Virginia, Texas and North Carolina.
- ▶ Two-thirds of individuals who moved to Erie County came from other states in the Mid-Atlantic region.
- ▶ The Midwest provides the second largest amount of individuals who moved to Erie County (13.0%), followed by the South (9.0%).

Top 15 Origin Counties
of Erie In-Migrants, 1995-2000

County and State in 1995	In Flow
Allegheny County, Pennsylvania	2,173
Crawford County, Pennsylvania	1,857
Warren County, Pennsylvania	1,017
Chautauqua County, New York	877
Erie County, New York	715
Mercer County, Pennsylvania	578
Westmoreland County, Pennsylvania	548
Beaver County, Pennsylvania	523
Elk County, Pennsylvania	519
Venango County, Pennsylvania	452
Butler County, Pennsylvania	424
Cuyahoga County, Ohio	401
Ashtabula County, Ohio	392
Clarion County, Pennsylvania	302
Lawrence County, Pennsylvania	269

- ▶ Between 1995 and 2000 more people moved to Erie from Allegheny County, PA than from any other county in the nation.
- ▶ Out of the top 15 counties, 11 were in Pennsylvania, 2 were in Ohio, and 2 were in New York. All 15 were in the tri-state area.

Nine counties were on both the “Top 15 Origins” and “Top 15 Destinations” lists.

Nine Counties on Both the
Top Origins and Top Destinations Lists

County and State in 1995	In Flow	Out Flow	Net Flow
Allegheny County, Pennsylvania	2,173	1,799	374
Warren County, Pennsylvania	1,017	676	341
Erie County, New York	715	382	333
Mercer County, Pennsylvania	578	328	250
Chautauqua County, New York	877	811	66
Ashtabula County, Ohio	392	347	45
Butler County, Pennsylvania	424	449	-25
Cuyahoga County, Ohio	401	687	-286
Crawford County, Pennsylvania	1,857	2,271	-414

- ▶ From six of those nine counties, the net flow was positive for Erie County.
- ▶ Allegheny County provided the largest number of net migrants to Erie County. On net, we *gained* people from Pittsburgh, not lost people to it.
- ▶ Crawford County had the largest net outflow from Erie County. People moved out of Erie County to Crawford County, on net.

Personal Income

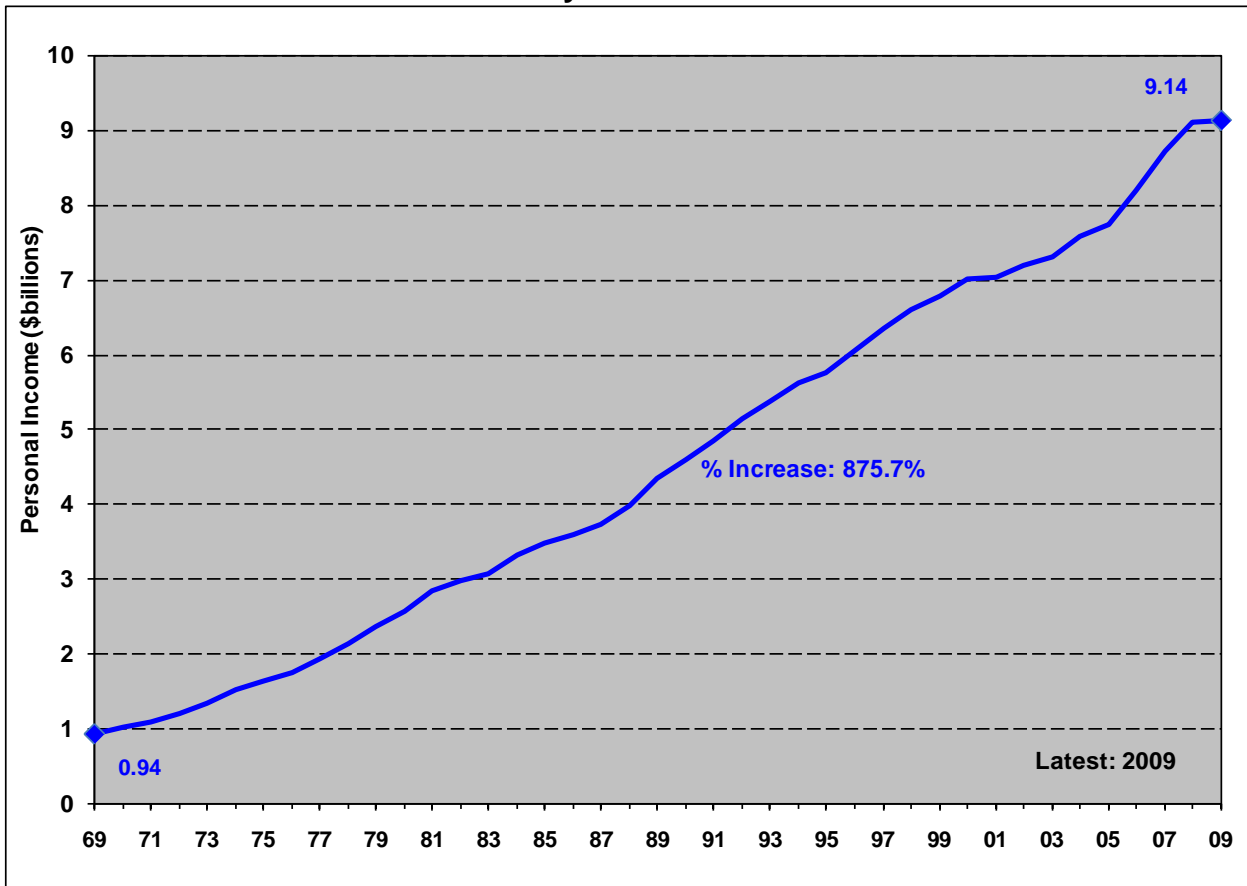
Erie County Income and Earnings Profile, 2009		
	Total	% of Total
Personal income (by place of residence) (Thousands of \$)	9,141,718	100.0
Net earnings 1/	5,357,844	58.6
Personal current transfer receipts	2,391,553	26.2
Income maintenance 2/	235,613	2.6
Unemployment insurance compensation	257,491	2.8
Retirement and other	1,898,449	20.8
Dividends, interest, and rent	1,392,321	15.2
Population (persons) 3/	280,291	
Per capita personal income	32,615	100.0
Per capita net earnings	19,115	58.6
Per capita personal current transfer receipts 4/	8,532	26.2
Per capita income maintenance	841	2.6
Per capita unemployment insurance benefits	919	2.8
Per capita retirement and other	6,773	20.8
Per capita dividends, interest, and rent	4,967	15.2
Earnings by place of work (Thousands \$)	6,337,446	100.00
Wage and salary disbursements	4,656,272	73.47
Supplements to wages and salaries	1,179,303	18.61
Employer contributions for employee pension and insurance funds	801,650	12.65
Employer contributions for government social insurance	377,653	5.96
Proprietors' income	501,871	7.92
Nonfarm proprietors' income	502,723	7.93
Farm proprietors' income	-852	-0.01

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System

Footnotes

1. Total earnings less contributions for government social insurance, adjusted to place of residence.
2. Consists largely of supplemental security income payments, family assistance, general assistance payments, food stamp payments, and other assistance payments, including emergency assistance.
3. Census Bureau midyear population estimates. Estimates for 2000-2009 reflect county population estimates available as of April 2010.
4. This component of personal income is payments to persons for which no current services are performed. It consists of payments to individuals and to nonprofit institutions by Federal, state, and local governments and by businesses. Government payments to individuals includes retirement and disability insurance benefits, medical payments (mainly Medicare and Medicaid), income maintenance benefits, unemployment insurance benefits, veterans benefits, and Federal grants and loans to students. Government payments to nonprofit institutions excludes payments by the Federal Government for work under research and development contracts. Business payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions.

Erie County Personal Income



Source: Bureau of Economic Analysis (BEA), REIS

- ▶ The key story for personal income in Erie is “growth”, plain and simple.
- ▶ Aggregate personal income of Erie residents was \$937 million in 1969 and it grew steadily to over \$9.1 billion in 2009.
- ▶ Total growth in personal income in Erie between 1969 and 2009 was 875.7%—that is, 2009 income was over 9.7 times as large as 1969 income.
- ▶ Recessions sometimes slowed, but rarely reversed the pattern of growth in income, even temporarily.
- ▶ These data would be more useful if they were adjusted for changes in population and price levels (inflation), and compared to the U.S.—which is what the following graphs do.

Components of Erie Personal Income, 2009

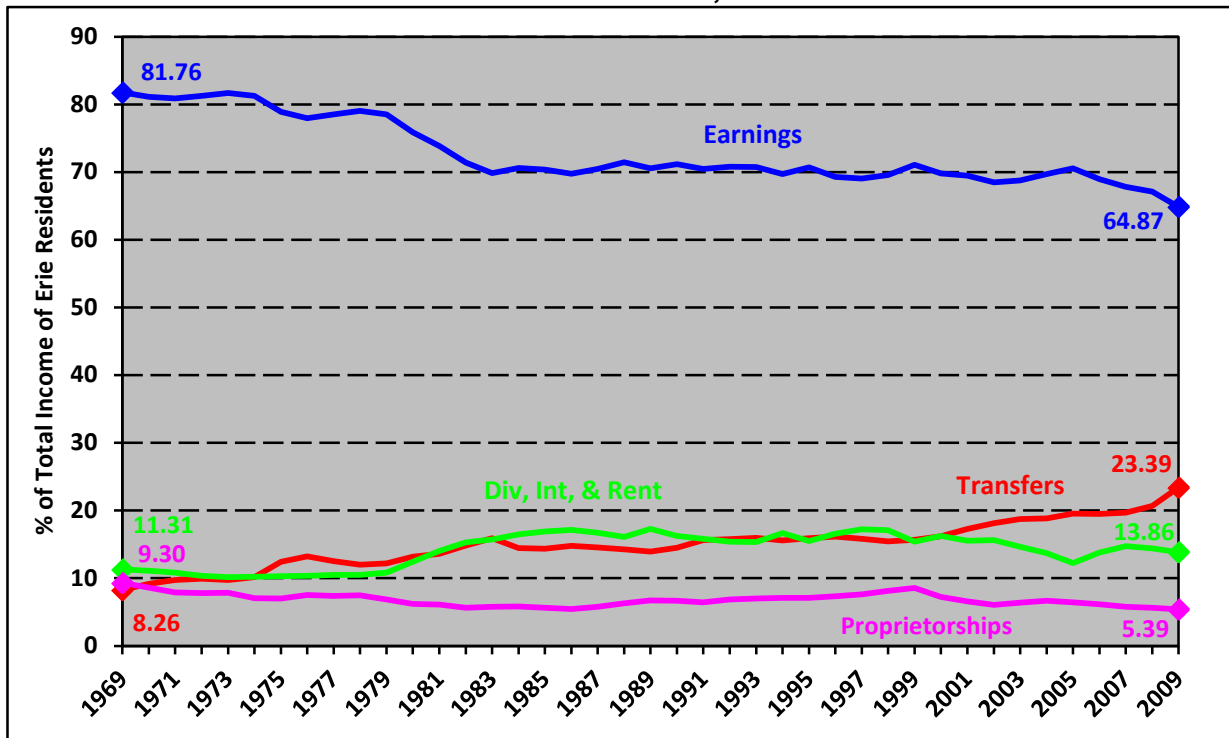
Component	Erie County		U.S.		Erie to U.S. LQ
	(1000's of \$)	% of Total Income	(1000's of \$)	% of Total Income	
Total Income	\$9,917,721	100.0	\$13,136,860,000	100.0	1.00
Personal income (After Taxes for Social Insurance)	9,141,718	92.2	12,168,161,000	92.6	1.00
Nonfarm personal income 1/	9,130,791	92.1	12,101,551,000	92.1	1.00
Farm income 2/	10,927	0.1	66,610,000	0.5	0.22
Earnings by place of work	6,337,446	63.9	8,811,175,000	67.1	0.95
Less: Contributions for government social insurance 3/	776,003	7.8	968,699,000	7.4	1.06
Employee and self-employed contributions for government social insurance	398,350	4.0	508,931,000	3.9	1.04
Employer contributions for government social insurance	377,653	3.8	459,768,000	3.5	1.09
Plus: Adjustment for residence 4/	-203,599	-2.1	845,000	0.0	-319.15
Equals: Net earnings by place of residence	5,357,844	54.0	7,843,321,000	59.7	0.90
Plus: Dividends, interest, and rent 5/	1,392,321	14.0	2,192,960,000	16.7	0.84
Plus: Personal current transfer receipts	2,391,553	24.1	2,131,880,000	16.2	1.49
Wage and salary disbursements	4,656,272	46.9	6,266,732,000	47.7	0.98
Supplements to wages and salaries	1,179,303	11.9	1,522,083,000	11.6	1.03
Employer contributions for employee pension and insurance funds	801,650	8.1	1,062,315,000	8.1	1.00
Employer contributions for government social insurance	377,653	3.8	459,768,000	3.5	1.09
Proprietors' income 6/	501,871	5.1	1022360000	7.8	0.65
Farm proprietors' income	-852	0.0	40893000	0.3	-0.03
Nonfarm proprietors' income	502,723	5.1	981467000	7.5	0.68

Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

Footnotes

1. Nonfarm personal income is total personal income less farm income.
2. Farm income is farm earnings less farm employer contributions for social insurance.
3. Contributions for government social insurance are included in earnings by type and industry, but they are excluded from personal income.
4. The adjustment for residence is the net inflow of the earnings of inter-area commuters. A negative number means people are commuting into the area to work. For the United States, it consists of adjustments for border workers and for certain temporary and migratory workers: Wage and salary disbursements to U.S. residents commuting or working temporarily outside U.S. borders less wage and salary disbursements to foreign residents commuting or working temporarily inside U.S. borders.
5. Rental income of persons includes the capital consumption adjustment.
6. Proprietors' income includes the inventory valuation adjustment and the capital consumption adjustment.

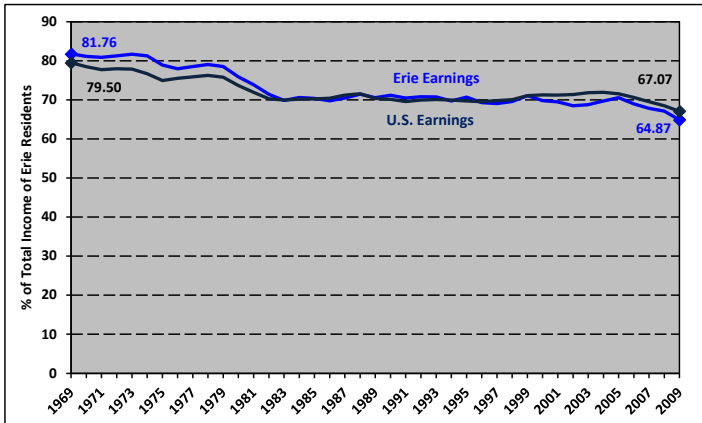
Sources of Erie's Income, 1969 – 2009



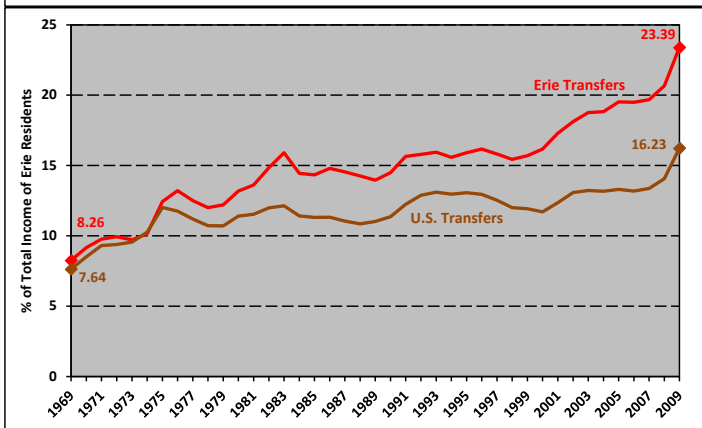
Source: U.S. Bureau of Economic Analysis, Regional Economic Information System

- ▶ The components of Erie's income have changed significantly since 1969.
- ▶ Earnings as a percent of income decreased from 82% of all income earned to only 65%.
- ▶ Transfer payments (like retirement and disability payments, welfare, Medicare and Medicaid, etc.), however, increased from only 8.3% percent of income in 1969 to 23.4% in 2009 – close to tripling.
- ▶ Income from dividends, interest, and rent (so-called “unearned income”) increased slightly over the period from 11.3% to 13.9%.
- ▶ Income from proprietorships as a percent of total income decreased from 9.3% to 5.4%.

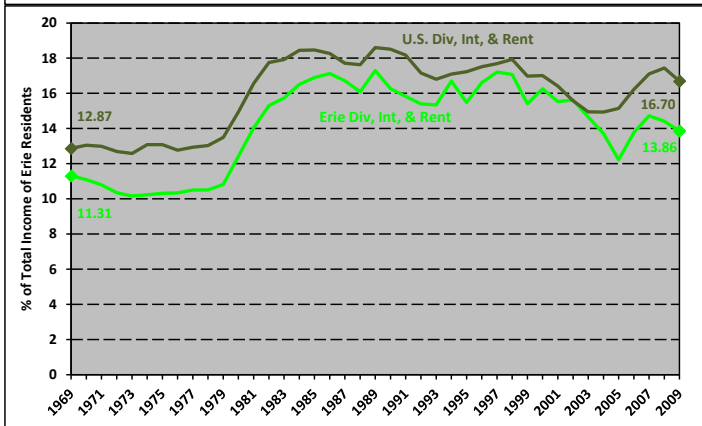
Sources of Erie and U.S. Income, 1969-2009



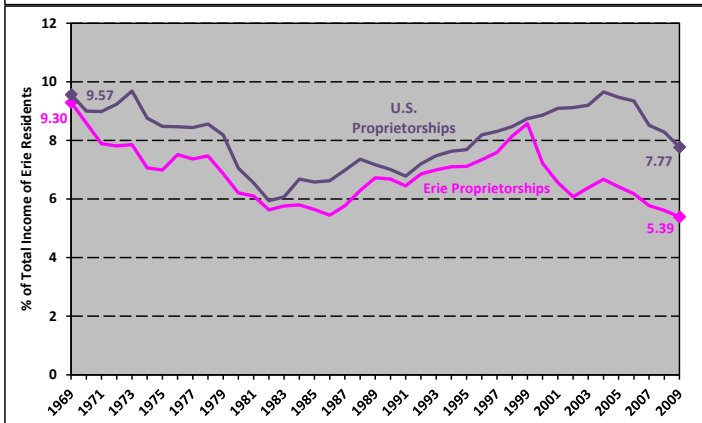
- ▶ Both Erie and U.S. earnings as a percent of total income decreased since 1969.
- ▶ The share of earnings decreased faster in Erie than the U.S. overall. Erie earnings decreased about 17 percentage points (from 81.8 to 64.9) versus the U.S. decrease of 12.4 percentage points (from 79.5 to 67.1.)



- ▶ Transfer payments as a percent of total income increased in both Erie and the U.S.
- ▶ U.S. transfer payments increased from 7.6 to 16.2 percent of total income – a little more than double the 1969 level.
- ▶ Erie's share of income from transfer payments nearly tripled. Erie's share from transfers is 23.4% vs. the US share of 16.2%.

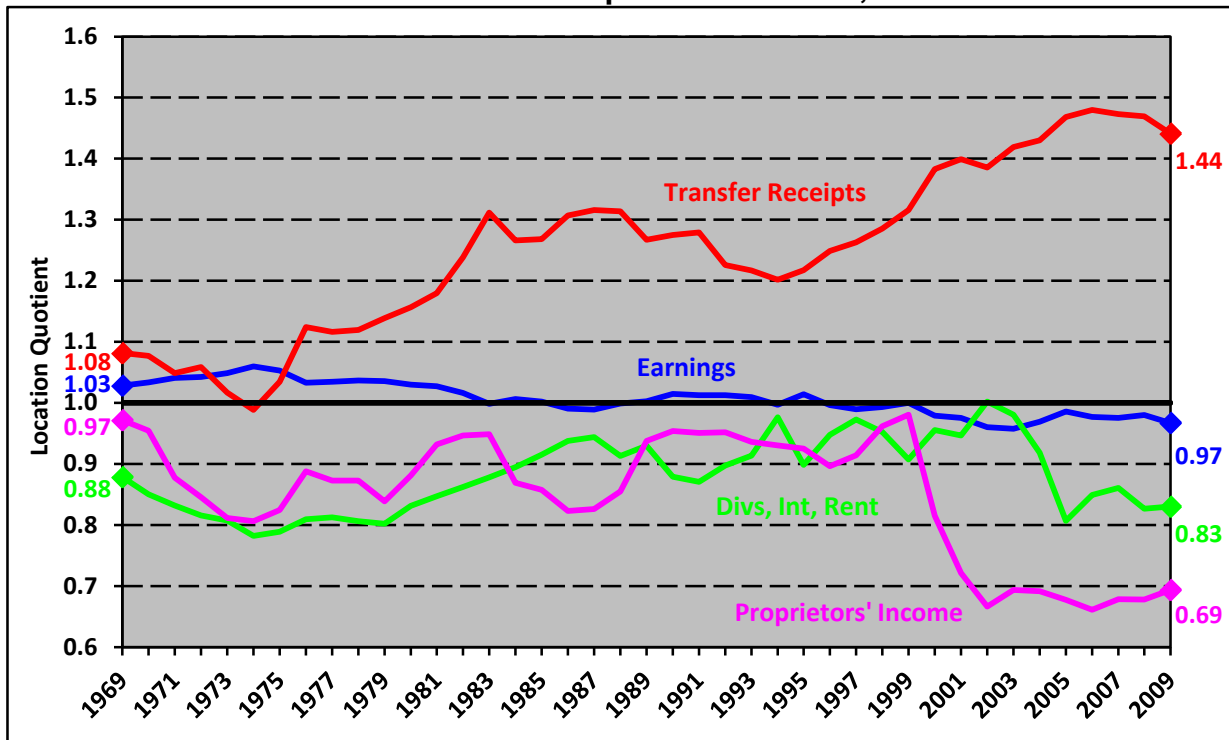


- ▶ The share of income from dividends, interest, and rent increased for both Erie and the U.S. starting in about 1980.
- ▶ The U.S. increased from 12.9 to 16.7 percent of total income, and Erie from 11.3% to 13.9%.
- ▶ The recent recession has had a negative impact on this component.



- ▶ Erie and U.S. percent of income from proprietorships also fell.
- ▶ The U.S. decreased from 9.6 to 7.8 percent of total income.
- ▶ Erie lost more than twice the amount of income from proprietorships as the U.S. – a 42.0% loss versus 18.8%.
- ▶ Erie had 2.4% less income from proprietorships than the U.S. in 2009.

Erie Income Sources Compared to the U.S., 1969-2009

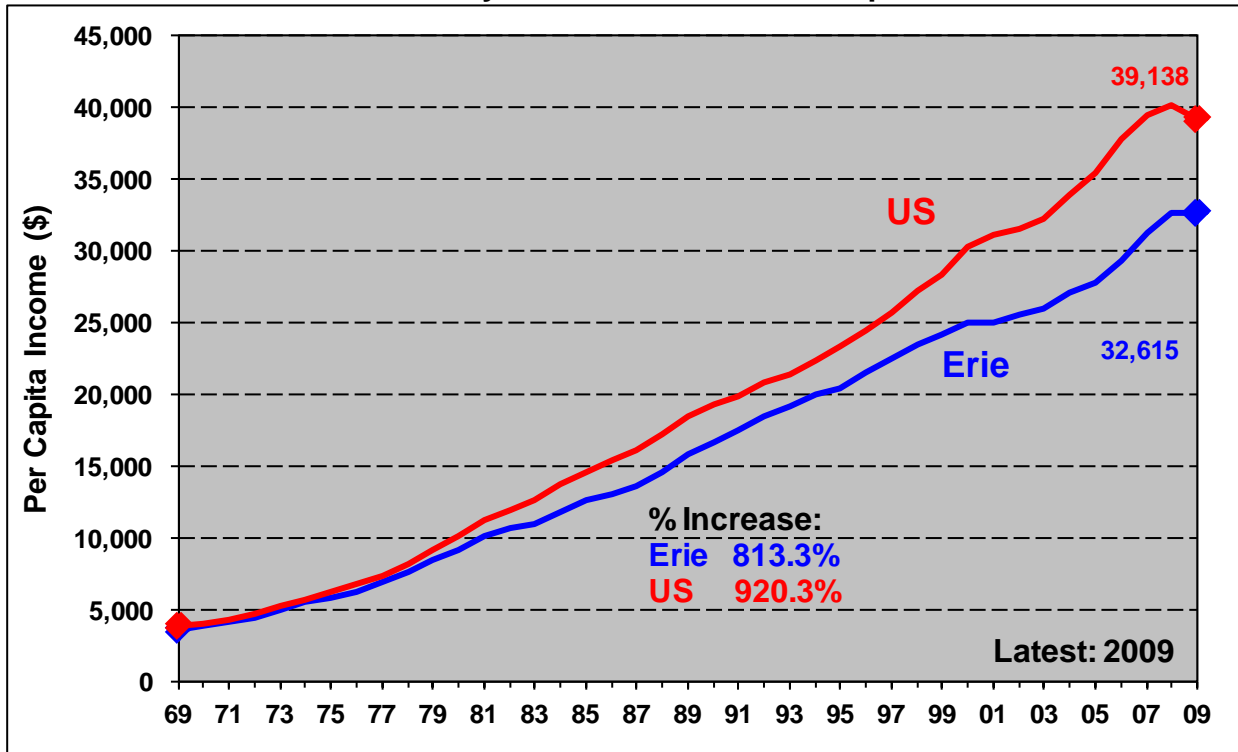


Source: U.S. Bureau of Economic Analysis, Regional Economic Information System

- ▶ Location quotients (LQ) allow comparison of Erie income sources with those of the U.S. over time. The location quotient is the ratio of Erie's percentage of income from a particular source divided by the corresponding percentage for the U.S.. A value above 1.0 indicates that Erie has more than its share of income from that category, while a value less than 1.0 indicates that Erie has less.
- ▶ Earnings as a source of income fell slightly compared to the U.S. between 1969 and 2009. Erie had slightly more of its share from earnings in 1969 with a LQ of 1.03 and slightly less than its share in 2009 with .97.
- ▶ The dividends, interest, and rent LQ has been variable over this period, starting at .88 in 1969, rising to slightly greater than 1 in 2002, and falling to .83 in 2009.
- ▶ The proprietors LQ was nearly 1 in 1969, and varied in a band from 0.8 to 1 until the 2000 recession, when it dropped to the 0.7 range, where it has stayed since.
- ▶ Transfer payments is the category with the largest increase in LQ over the period, rising from 1.08 in 1969 to 1.49 in 2006, nearly half again the national rate. In recent years it has fallen a bit to 1.44. An increasing transfer payments LQ indicates that Erie residents rely more on government handouts than other places.
- ▶ Erie's economy would be stronger if the proprietor's income and unearned income (dividends, interests and rents) categories were larger, and transfer payments smaller.

Income Per Capita

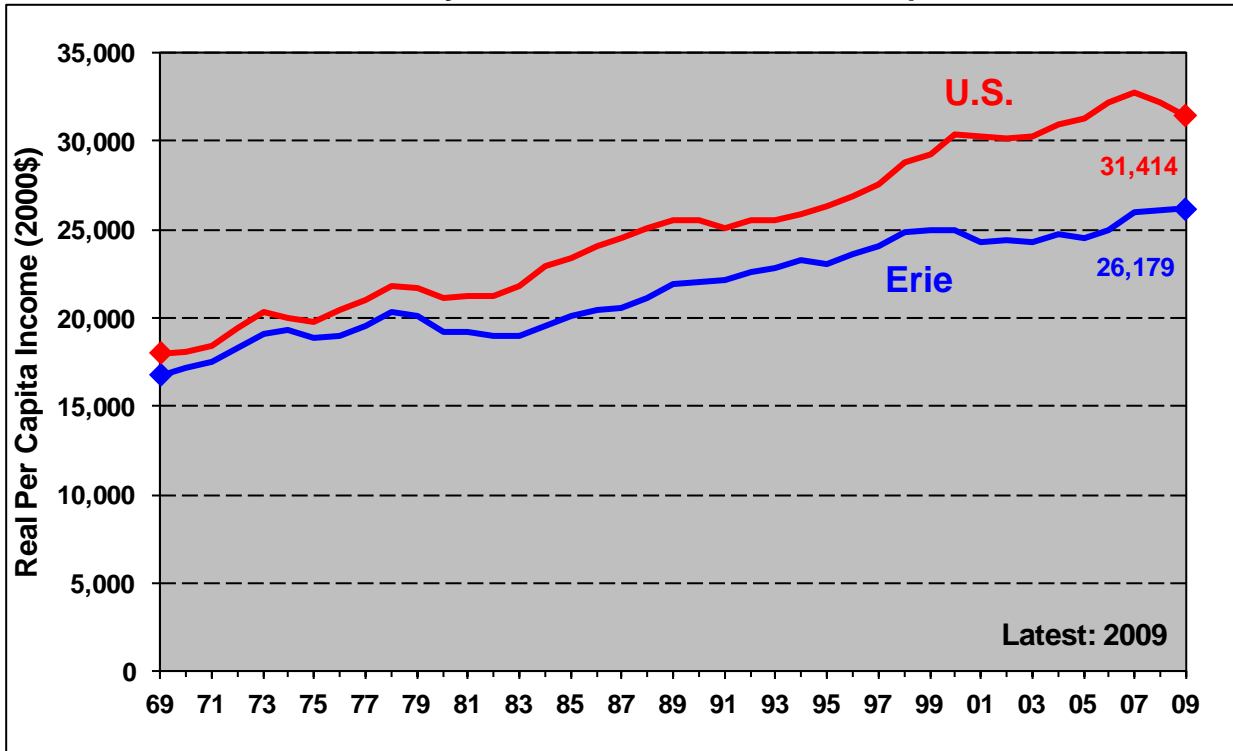
Erie County and U.S. Income Per Capita



Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ The story of Erie per capita income is one of growth, but of growth at a slower rate than the nation.
- ▶ Between 1969 and 2009, per capita personal income grew by 920% in the U.S. and 813% in Erie.
- ▶ In 1969, per capita personal income was \$3,836 in the U.S. and \$3,571 in Erie. Erie's income per capita was \$265 or 6.9% lower than that of the U.S..
- ▶ In 2009, per capita personal income was \$39,138 in the U.S. and \$32,615 in Erie, a difference of \$6,523 or 16.7%.
- ▶ Since Erie income has grown more slowly than national income, we are falling further behind the national average income level over the years, with a few exceptions.
- ▶ From 2008 to 2009 the U.S. per capita income dropped \$1,028 or 2.6% to \$39,138. This is even below the 2007 per capita income of \$39,392. The recession of 2007-09 hit the U.S. hard.
- ▶ From 2008 to 2009 Erie income per capita actually rose slightly, from \$32,586 to \$32,615. In fact, Erie income per capita rose throughout this recession, while income nationally fell in 2009.
- ▶ Caution: this graph does NOT adjust for inflation, so it does not tell the whole story. Inflation-adjusted data are on the next page.

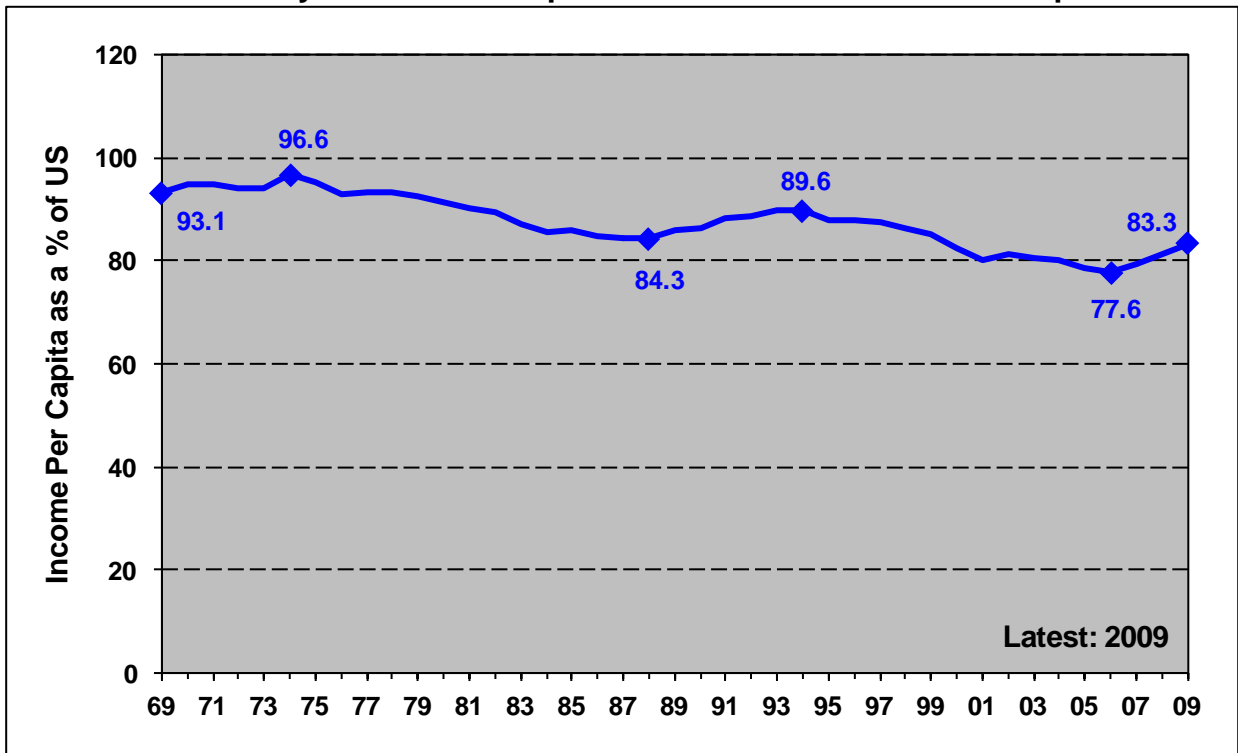
Erie County and U.S. Real Income Per Capita



Source: Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ Adjusting for inflation yields “real” income per capita. After adjusting for both inflation and population change, the story of Erie income (actually, real income per capita) is still one of growth. However, the story now has some chapters with decreasing income levels.
- ▶ Real per capita personal income grew by 56.2% in Erie between 1969 and 2009.
- ▶ However, real per capita income grew by 74.5% in the U.S. over this same time period. Again the story is that Erie is experiencing growth, but at slower rates than the national economy. This means that we continue to fall further behind the national average.
- ▶ Adjustment for inflation also spotlights the periods of recession, when real incomes typically fell. These include the 1975 recession, the 1980-83 period, the 2000-03 period and, at the national level, the 2007-09 period. The 1990 recession did not have much impact on Erie incomes.
- ▶ While nominal (non-adjusted) income per capita rose for the nation in 2008, it rose at a slower rate than did inflation. As a result, real income fell in both 2008 and 2009 at the national level.
- ▶ Even after adjusting for inflation, Erie income per capita did not fall during the most recent recession. Erieites found ways to maintain their income levels during the recession, on average.

Erie County Income Per Capita as a % of U.S. Income Per Capita

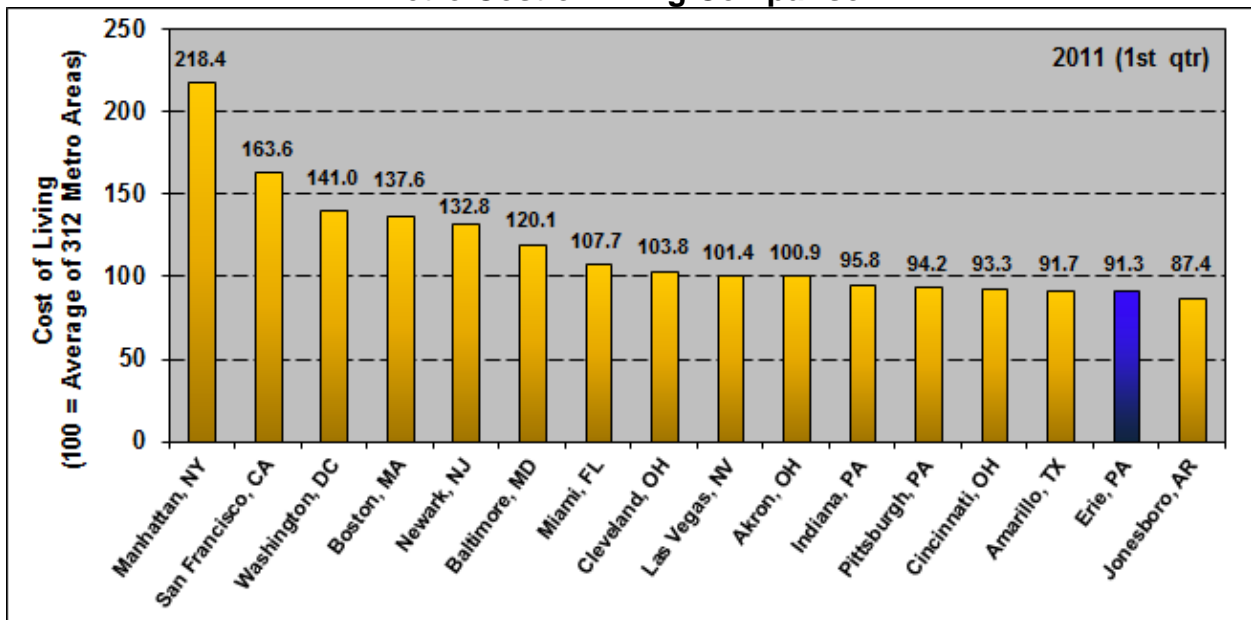


Source: Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ Over the period from 1974, Erie has tended to have slower income growth than the nation, so it has fallen further and further behind the national average income level.
- ▶ Erie's income per capita was closest to the U.S.'s in 1974, when Erie had 96.6% of the national level of income.
- ▶ The recessions of the 1970's and 80's hit Erie harder than the nation, and we lost ground in terms of income per capita.
- ▶ After a slight rise in the late 80's and early 90's, the Erie/US ratio again resumed its slide relative to the national average. By 2007, Erie per capita income had decreased to 77.6% of the U.S. per capita income level.
- ▶ But during the most recent recession Erie per capita income has gained on the national level, increasing to 83.3% of the U.S. per capita income level in 2009.
- ▶ It should be remembered that although Erie income has declined relative to U.S. Income levels overall, Erie income has still risen significantly over this period.
- ▶ The key question, of course, is WHY this is happening, and that is not an easy question to answer. Part of the answer has to do with what Erie does for a living, both in terms of its industries and its occupations. And part of the answer has to do with its education level. More information about those things are later in the *Guide*.

Cost of Living

Metro Cost of Living Comparison

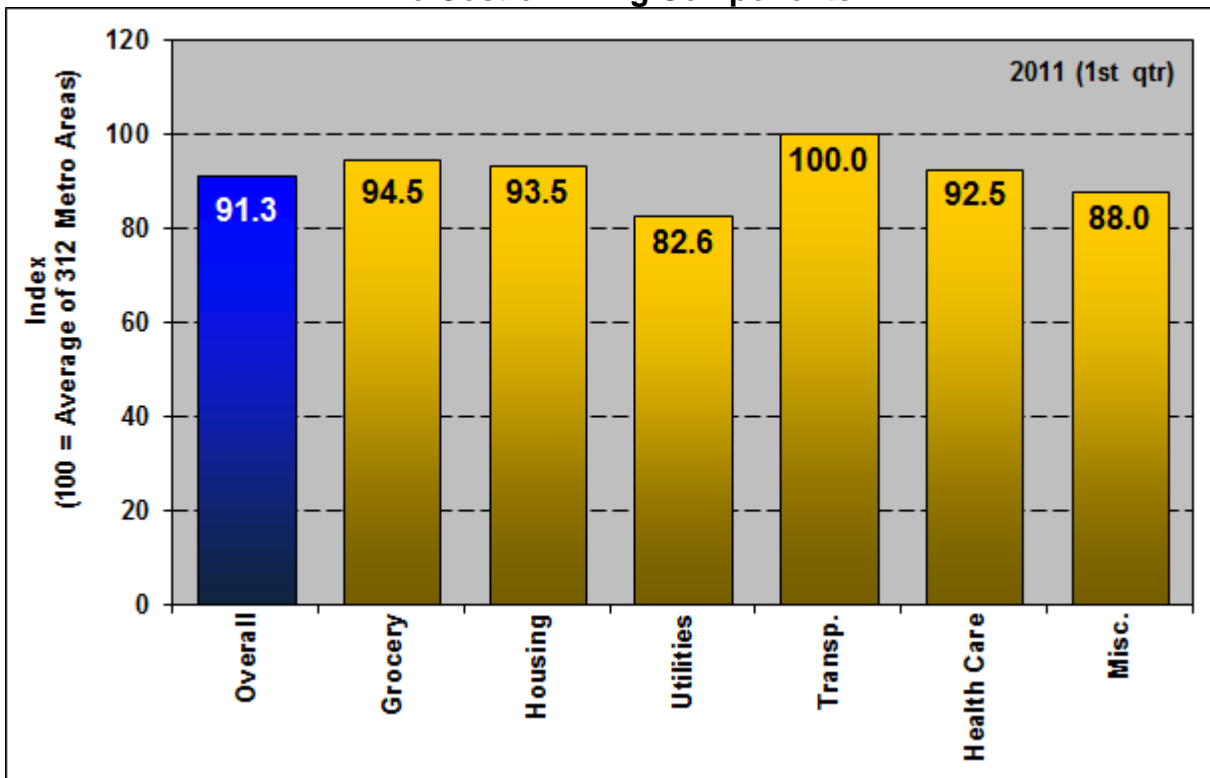


Source: ACCRA Cost of Living Index

- ▶ Cost of living data that compare the cost of a specific “basket” of goods and services from place to place are gathered by the Council for Community and Economic Research (C2ER) in its *ACCRA Cost of Living Index (COLI)*. In the COLI, 100 represents the average of the 300 or so urban areas that participate in that quarter.⁵
- ▶ For the first quarter of 2011, Erie’s Cost of Living Index was 91.3, indicating that Erie’s costs were about 8.7% below the average of other urban areas. Costs on the east coast and New England tend to be quite a bit above Erie’s costs, especially for housing.
- ▶ Although Erie’s income levels are below the national average, its cost of living helps offset some of that differential. Unfortunately, the cost differential (about 9%) is not enough to offset the income differential (about 17%).
- ▶ The cost of living in Erie in 2011 is less than half that of living in Manhattan, which was the highest cost area in that quarter’s report. San Francisco’s costs were more than 78% higher than Erie’s. At the other extreme, Jonesboro AR had a cost index of 87.4 which was about 4% less expensive than Erie.
- ▶ A lower cost of living means that Erie firms may pay lower wages, and thus have a cost advantage over their competitors in higher-cost locations, while workers have the same standard of living. This can be one source of competitive advantage for Erie firms.
- ▶ You can find a Cost of Living Calculator on the homepage of www.ERIEdata.org which allows (free!) comparison of Erie’s cost of living with that of many other areas of the nation.

⁵ The federal government does not currently publish any spatial cost of living data. The well-known Consumer Price Index only allows comparison of prices through time, not from place to place.

Erie Cost of Living Components

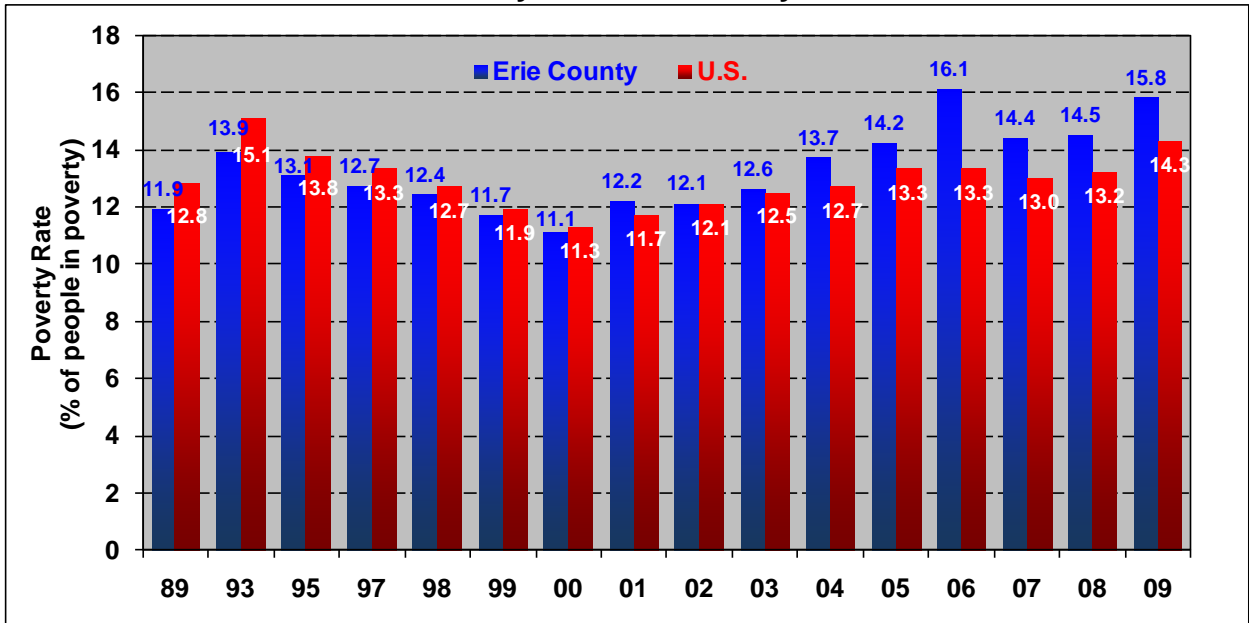


Source: ACCRA Cost of Living Index

- ▶ The ACCRA Cost of Living Index is composed of six subcategories: groceries, housing, utilities, transportation, health care, and miscellaneous.
- ▶ Erie rates below the average cost in the grocery, housing, utilities, health care, and miscellaneous categories. Low housing costs in Erie represent a significant advantage over many other areas of the country. For example, for the first quarter of 2011 the Erie housing index was 93.5 and the index for Manhattan was 397.9, meaning housing cost about 4¼ times as much in Manhattan as in Erie. Boston was 157.6, and San Francisco was 279.6.
- ▶ Transportation costs in Erie were just at the national average, but no Erie category was above the national average.

Poverty

Erie County and U.S. Poverty Rates



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

- ▶ From 1989 until 2000, the poverty rate in Erie was consistently below that of the U.S.
- ▶ Since the recession of 2001, Erie’s poverty rate was either equal to or above that of the nation.
- ▶ In 2009, the poverty rate in Erie was 1.5 percentage points higher than the poverty rate of the U.S., 15.8% vs. 14.3%.
- ▶ The Erie Community Foundation has two Special Reports on Poverty:
 - 1) *The High Cost of Poverty: It Affects Us All*, by Laura Lewis and Amy Cuzzola-Kern, is available online at:
<http://www.eriecommunityfoundation.org/files/publications-videos/special-reports/2007-poverty-study.pdf>
 - 2) *The High Cost of Poverty: What You Can Do*, is available online at:
<http://www.eriecommunityfoundation.org/files/publications-videos/special-reports/2008-whatyoucando.pdf>

Poverty by Age, Sex, and Race, 2009

Subject	Percent Below Poverty Level			
	Erie City	Erie County	PA	US
POPULATION				
For whom poverty status is determined	23.1%	15.8%	12.5%	14.3%
AGE				
Under 18 years	30.2%	21.6%	17.1%	20.0%
Related children under 18 years	29.7%	21.1%	16.8%	19.7%
18 to 64 years	22.2%	15.0%	11.7%	13.1%
65 years and over	15.0%	9.8%	8.8%	9.5%
SEX				
Male	21.3%	14.2%	11.0%	13.1%
Female	24.8%	17.3%	13.9%	15.6%
RACE				
One race	N	N	N	14.2%
White	20.5%	14.4%	9.7%	11.7%
Black or African American	33.3%	31.6%	28.4%	25.8%
American Indian and Alaska Native	N	N	24.3%	27.3%
Asian	N	N	13.8%	11.4%
Native Hawaiian and Other Pacific Islander	N	N	N	15.1%
Some other race	N	N	35.4%	24.7%
Two or more races	N	22.9%	25.4%	18.1%

N = no data available

Source: U.S. Census Bureau, 2009 American Community Survey

- ▶ The poverty rates for PA (12.5%) is lower than that of the nation (14.3%), while Erie County's rate is higher (15.8%). Poverty in City of Erie is significantly higher at 23.1%.
- ▶ Moreover, poverty rates are higher in the City of Erie for every subject area for which data are available.
- ▶ The data show that poverty is a problem especially for children, but that senior citizens experience less poverty than average.
- ▶ Poverty rates tend to be slightly higher for women than for men across all geographic areas in the table above.
- ▶ Poverty tends to be a problem for most racial minorities, and especially for African Americans. One exception to this pattern is that those of Asian extraction tend to have a lower than average poverty rate at the national level.

Poverty by Educational Attainment, Employment Status, & Work Experience, 2009

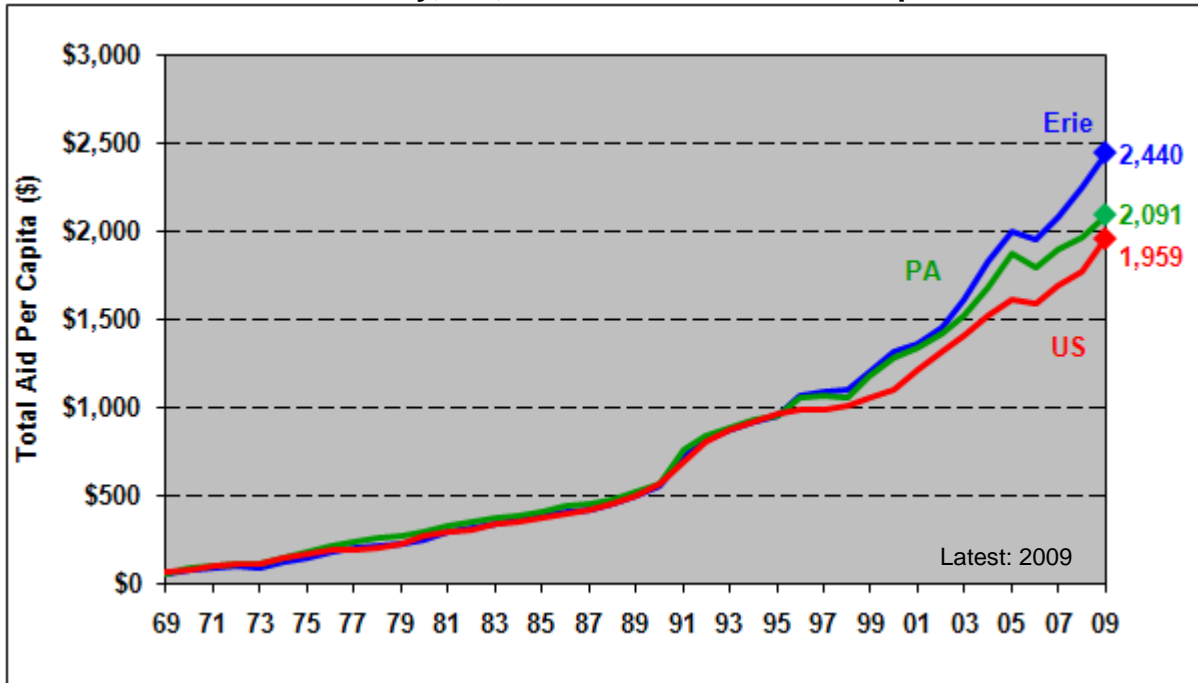
Subject	Percent Below Poverty Level			
	Erie City	Erie County	PA	US
EDUCATIONAL ATTAINMENT				
Population 25 years and over	16.8%	11.6%	9.6%	10.9%
Less than high school graduate	39.4%	30.4%	23.4%	25.7%
High school graduate (includes equivalency)	15.8%	12.6%	10.7%	12.5%
Some college, associate's degree	14.2%	9.3%	8.1%	9.0%
Bachelor's degree or higher	6.3%	4.1%	3.5%	3.9%
EMPLOYMENT STATUS				
Civilian labor force 16 years and over	15.1%	9.8%	6.8%	8.7%
Employed	12.4%	7.1%	5.0%	6.6%
Male	10.1%	6.6%	4.0%	5.8%
Female	14.9%	7.5%	6.1%	7.6%
Unemployed	38.1%	35.6%	25.2%	27.4%
Male	37.5%	28.9%	22.1%	24.6%
Female	38.7%	43.6%	29.4%	31.1%
WORK EXPERIENCE				
Population 16 years and over	21.1%	14.1%	11.2%	12.7%
Worked full-time, year-round in the past 12 months	3.6%	2.7%	1.9%	2.7%
Worked part-time or part-year in the past 12 months	30.2%	19.1%	13.9%	16.8%
Did not work	33.0%	24.2%	21.0%	22.3%

Source: U.S. Census Bureau, 2009 American Community Survey

- ▶ How does one avoid poverty? The table above gives some useful insights.
- ▶ First of all, get educated! The table shows that more education consistently correlates with less poverty. The drop in poverty rate is especially significant going from “less than high school graduate” to “high school graduate.” In Erie County, nearly a third (30.4%) of those who are not high school graduates lived in poverty in 2009, but only 12.6% of high school graduates, and only 4.1% of college grads. Education is no guarantee, but it’s how the smart money bets.
- ▶ Unsurprisingly, employment also makes a big difference in terms of poverty status. Of those with a job, only 7.1% were in poverty in 2009, compared with 35.6% of those who were unemployed.
- ▶ Similarly, working full time significantly reduces the odds of being in poverty. Those who worked part time had slightly lower poverty rates than those who did not work, but those who worked full time had very low rates of poverty—only 2.7% in Erie County and 3.6% in the City. Those who did not work had poverty rates of 24.2% (County) and 33.0% (City).
- ▶ Once again, the City of Erie has a higher percentage of the population in poverty across virtually all categories. The only exception is the percentage of unemployed females in poverty. In this category, Erie County actually has a higher percentage in poverty at 43.6% compared to the City of Erie with 38.7%.
- ▶ The moral of the story: if you do not want to be in poverty, stay in school. Then get a job and work full time. (Easy to say, not always so easy to do.)

Welfare Assistance

Erie County, PA, and U.S. Total Aid Per Capita

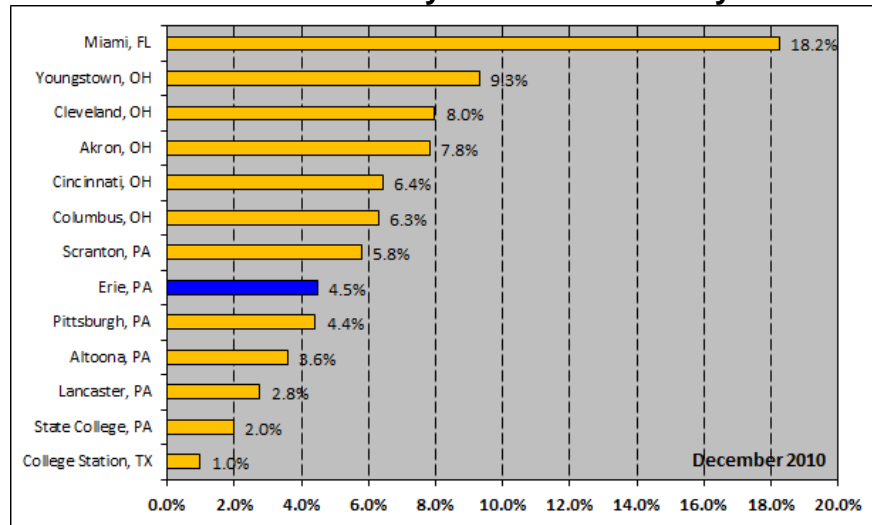


Source: Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ In 2009, Erie residents received \$2,440 per capita in welfare assistance. Average Erie income was \$32,615 in 2009.
- ▶ In 1969, welfare aid per person was \$50 in Erie County. That's a 4,758% increase to 2009. But we must adjust that for inflation; in 2009 the 1969 value would have been \$294 per person. So the 2009 value represents a real increase of 731%. In comparison, real income per capita rose by about 56% during the same period.
- ▶ Since 1996 residents of the Erie metro area (Erie County) have received greater amounts of welfare aid per capita than average for the U.S. and the state of Pennsylvania.
- ▶ In 2009, Erie residents received 24.6% and 16.7% more welfare aid per capita than the U.S. and PA, respectively.
- ▶ One perspective is that Erie is receiving more than its share of federal tax dollars.
- ▶ Another perspective is that more Erieites qualify for public aid than average, which fits with the stories above about lower income per capita and higher than average poverty rates.
- ▶ There is no free lunch here; if someone is getting "free money" from the government to help them pay their expenses, then other people are paying extra in taxes.
- ▶ Welfare aid includes payments for public assistance, medical benefits, supplemental security income, family assistance, food stamps, and a few other income maintenance benefits.

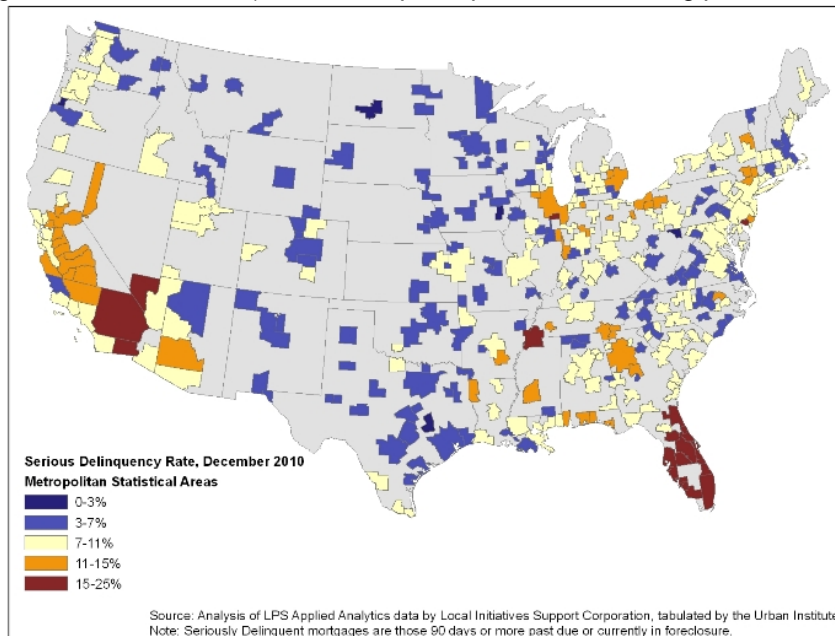
Mortgage Foreclosures

Foreclosure Rates: Erie County & Selected Nearby Metro Areas



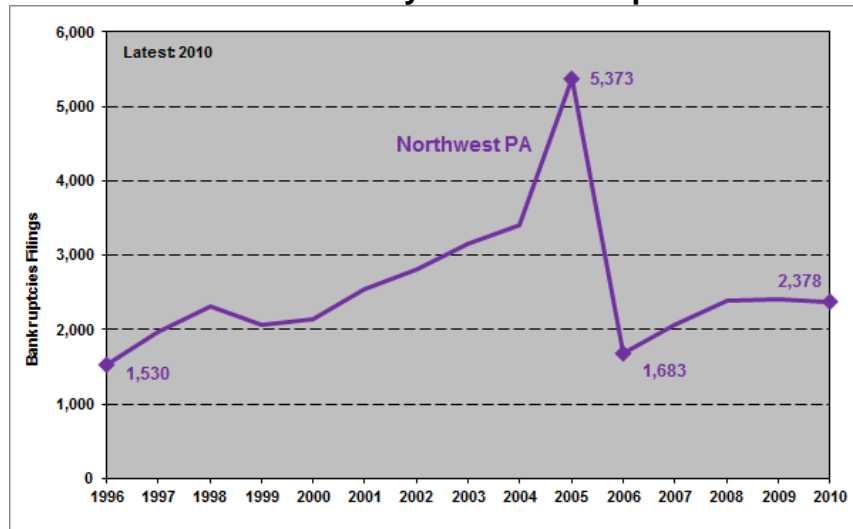
Source: Foreclosure Response.org

- ▶ The foreclosure rate is the percent of all mortgages that are in foreclosure and bankruptcy foreclosures prior to auction or trustee sale in the reference month.
- ▶ The foreclosure rate in Erie County in December 2010 was 4.5%. The average for 366 metro areas was 5.0%, with a range from 18.2% in Miami FL to only 1.0% in College Station TX.
- ▶ Erie's rate was lower than nearby metro areas in Ohio where the foreclosure rates were generally higher. Leading that pack was the Youngstown metro area, with a foreclosure rate of 9.3%.
- ▶ Foreclosure rates for other metro areas in PA were generally about equal to or lower than Erie County's rate. The Scranton, PA metro area had a higher rate of 5.8%, but Pittsburgh was only 4.4%.
- ▶ There were 173 metro areas with equal or higher foreclosure rates than Erie and 192 metro areas with foreclosure rates below Erie County, so Erie County ranked near the middle of metro areas.
- ▶ The map below shows serious delinquencies (not just foreclosures). These are lower in the central part of the country, and much higher in California, Arizona and Florida, which experienced a housing bubble during the last recession. (Erie did *not* participate in the housing price bubble.)



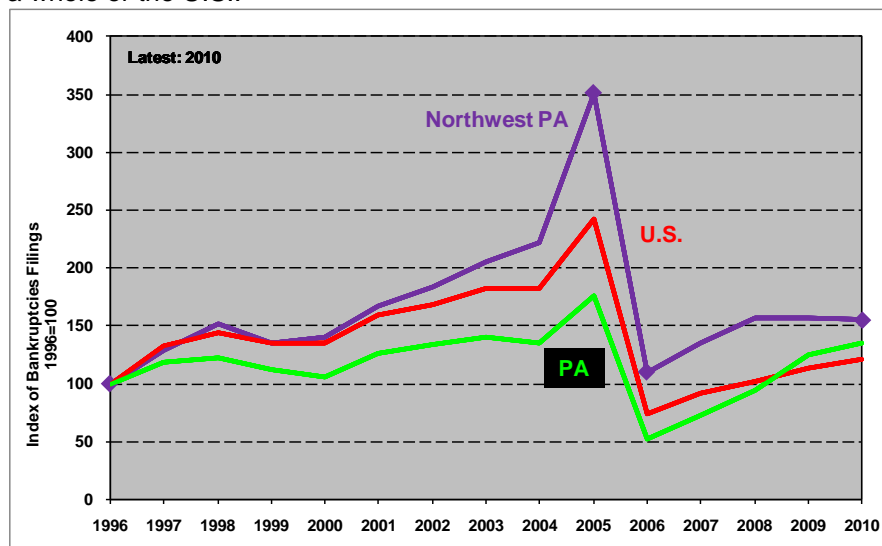
Bankruptcies

Northwest Pennsylvania Bankruptcies

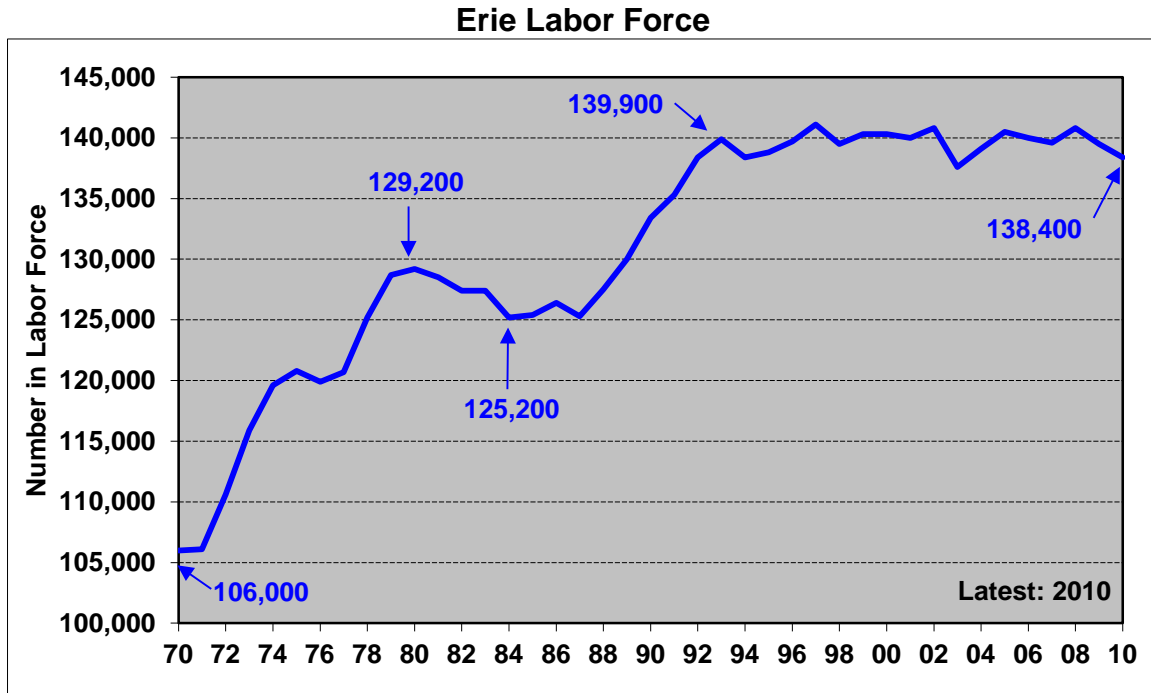


Source: United States Bankruptcy Court for the Western District of Pennsylvania

- ▶ Data on bankruptcies are available from the U.S. Bankruptcy Court for the Western District of PA. The data are not given by county but there are data for the Northwest PA region as a whole, which includes Erie, Crawford, Mercer, Venango, Clarion, Jefferson, Elk, Forest, Warren, and McKean counties. The graph above shows data for the aggregate of those 10 counties. The data include bankruptcies under Chapters 7, 11, 12 and 13, which includes individuals, partnerships, and corporations.
- ▶ In the Northwest PA region, bankruptcy filings rose moderately from 1996 to 2004. There was an abrupt peak in 2005 with 5,373 bankruptcy filings. In 2006, bankruptcies fell sharply to 1,683.
- ▶ It should be noted that the Bankruptcy Abuse Prevention and Consumer Protection Act was passed in 2005 and began to take effect in late 2005. This act changed many of the bankruptcy laws and is most likely the cause of the increased number of filings in 2005 as people filed under the old laws before the new law took effect.
- ▶ There were 2,378 bankruptcy filings in this region in 2010. We note that there was no sharp increase in bankruptcies in Erie during the recent recession.
- ▶ Compared to their 1996 levels, bankruptcies have risen at a faster rate in Northwest PA than in either the state as a whole or the U.S..



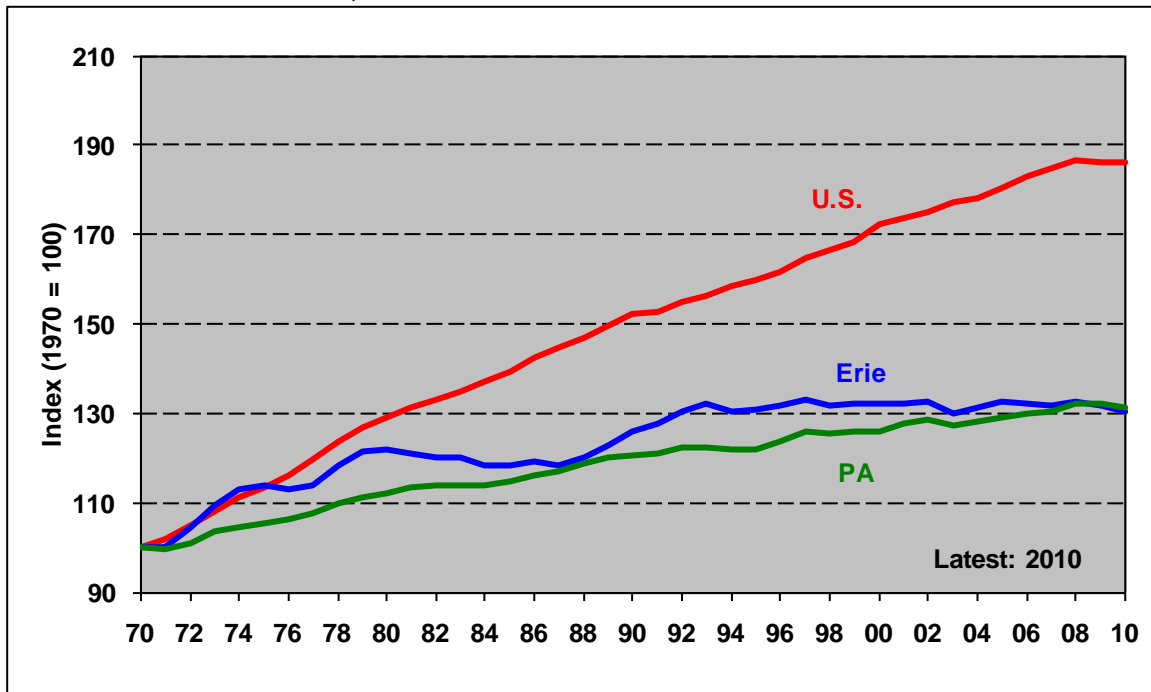
Labor Force



- ▶ The labor force includes all those who are officially classified as “employed” and “unemployed” (i.e., without a job, but looking for work).⁶
- ▶ The Erie labor force has risen by 30.6% since 1970, from 106,000 to 138,400. During this time, Erie’s population rose by only 6.3%. This means the labor force participation rate has risen.
- ▶ During the recession of the early 1980s, 4,000 Erie workers dropped out of the labor force. Not only were they not working, they were not looking for work.
- ▶ The labor force rose from 125,200 in 1984 to 139,900 in 1993, but has shown relatively little growth since then.
- ▶ The Erie labor force has been relatively steady at about 140,000 since the early 1990s. Although it dropped a bit during the recent recession, the decrease was nothing like the drop that happened in the recession of the early 1980s.

⁶ Labor force measures are based on the civilian noninstitutional population 16 years old and over. Excluded are persons under 16 years of age, all inmates of institutions like prisons, and persons on active duty in the Armed Forces. All other members of the civilian noninstitutional population are eligible for inclusion in the labor force, and those 16 and over who have a job or are actively looking for one are so classified. (Source: Bureau of Labor Statistics: http://www.bls.gov/cps/cps_htgm.htm)

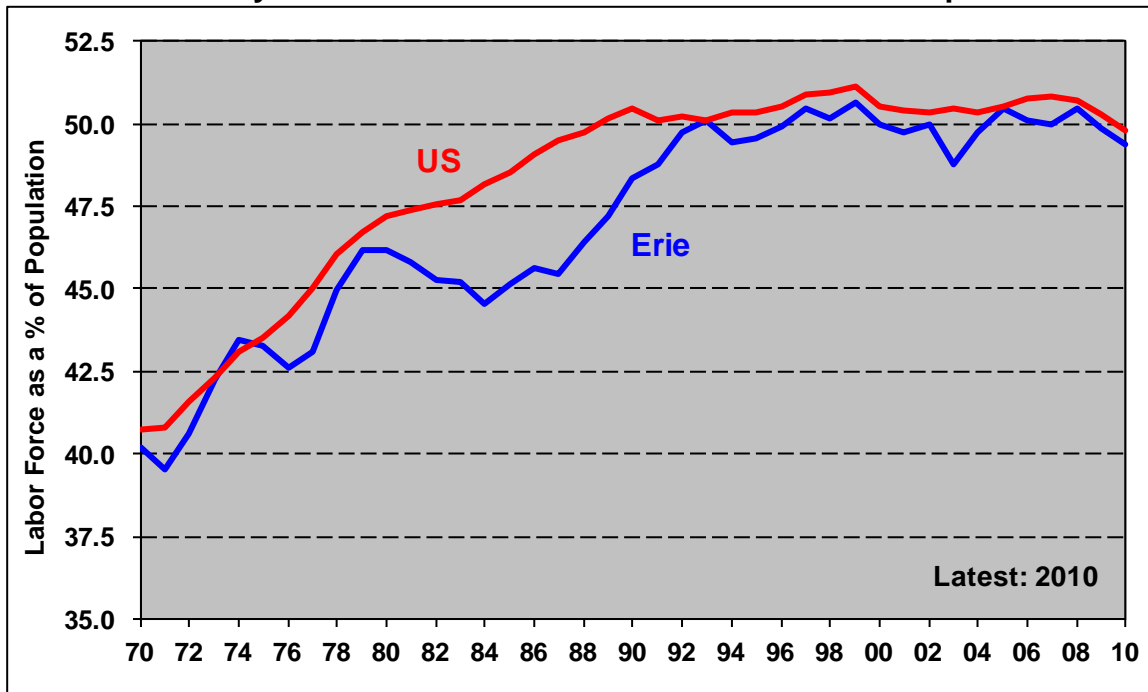
Erie, PA and U.S. Labor Force Indexes



Source: PA Center for Workforce Information & Analysis

- ▶ In contrast to Erie's pattern, the U.S. labor force has grown in every year since 1970, except for the last two years when it fell slightly, due to the severe recession.
- ▶ Erie's labor force growth exceeded that of the state in the 1970s, and again in the late 1980s and early 1990s. But it was stagnant since the early 1990s while the PA labor force continued to grow.
- ▶ Over the whole period, the Erie and PA labor forces have experienced virtually the same rate of growth: Erie 30.6%, PA 31.1%. The U.S. labor force grew 85.9% during this period.

Erie County and U.S. Labor Force as a Share of Total Population



Source: Calculated from data from the Bureau of Labor Statistics (BLS) and Census Bureau

- ▶ The labor force participation rate (LFPR) typically represents the labor force as a percentage of the population 16 years of age and older. Since we do not have data on the population 16 and older for Erie for all years, we will look at the labor force as a percent of total population, both for Erie and the U.S.
- ▶ Both Erie and the U.S. experienced an increase in the LFPR throughout the 1970s, climbing to about 50% by 1990.
- ▶ The recession of the early 1980s caused a drop in Erie's LFPR, from which it recovered in the late 1980s.
- ▶ The LFPR for Erie has hovered around the 50% level, slightly lower than the U.S. rate. About half of all Erie County residents either have a job or are looking for work.
- ▶ The LFPR fell slightly in the last couple of years in both Erie and the U.S. as a result of the recession.

Erie County Top 50 Employers

3rd Quarter 2010

Initial Data

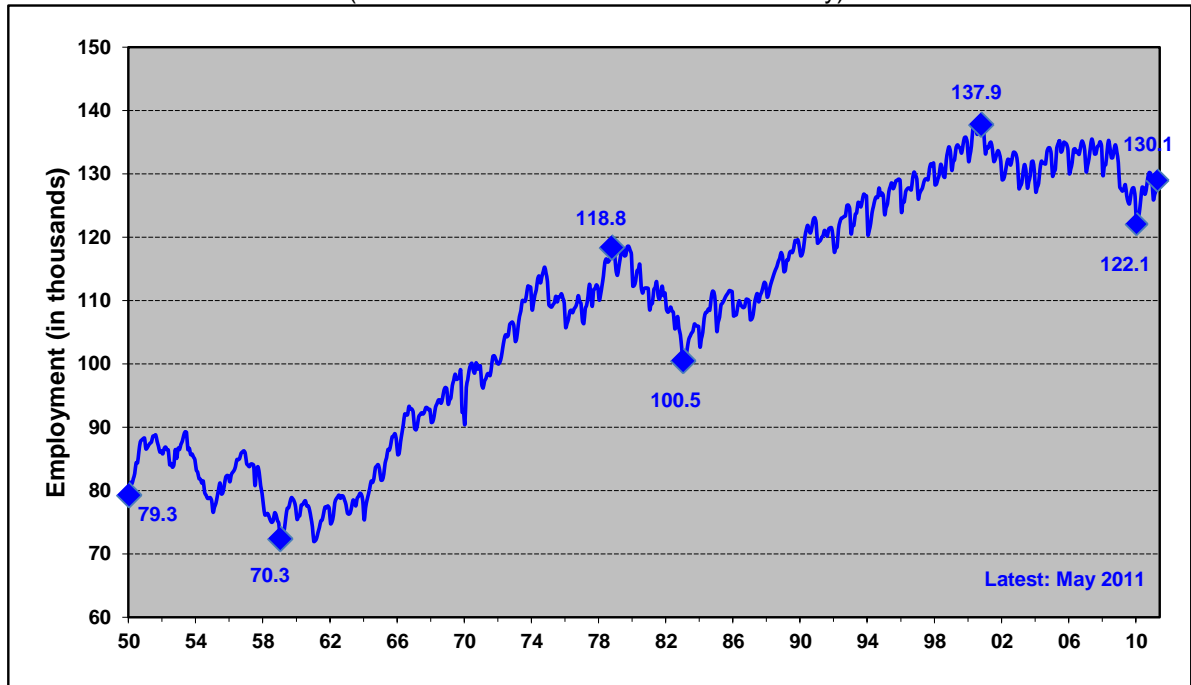
Federal and State Government Entities Aggregated

Rank	Name of Employer	Rank	Name of Employer
1	GENERAL ELECTRIC CO	26	WEGMANS FOOD MARKETS INC
2	HAMOT MEDICAL CENTER	27	MILLCREEK COMMUNITY HOSPITAL
3	ERIE INDEMNITY COMPANY	28	ST MARYS HOME OF ERIE
4	SAINT VINCENT HEALTH CENTER	29	THE TAMARKIN COMPANY
5	STATE GOVERNMENT	30	CLINICAL PATHOLOGY INSTITUTE INC
6	SCHOOL DISTRICT OF THE CITY OF ERIE	31	LAKESHORE COMMUNITY SERVICES
7	WAL-MART ASSOCIATES INC	32	STAIRWAYS BEHAVIORAL HEALTH
8	FEDERAL GOVERNMENT	33	PLEASANT RIDGE MANOR
9	ERIE COUNTY	34	WELCH FOODS INC
10	PRESQUE ISLE DOWNS INC	35	VERIZON NORTH INC
11	MILLCREEK TOWNSHIP SCHOOL DISTRICT	36	GREATER ERIE COMMUNITY ACTION CMMTE
12	DR GERTRUDE A BARBER CENTER INC	37	ST VINCENT MED EDUC & RESEARCH INST
13	PLASTEK INDUSTRIES INC	38	ERIE HOMES FOR CHILDREN &
14	STATE SYSTEM OF HIGHER EDUCATION	39	WEST DIRECT II INC
15	CITY OF ERIE	40	NORTHWEST TRI-COUNTY INTERMED UNIT
16	COUNTRY FAIR INC	41	GENERAL MCLANE SCHOOL DISTRICT
17	GANNON UNIVERSITY	42	FORT LEOBOEUF SCHOOL DISTRICT
18	LORD CORPORATION	43	SNAP-TITE INC
19	INFINITY RESOURCES INC	44	PORT ERIE PLASTICS INC
20	MERCYHURST COLLEGE	45	DR GERTRUDE A BARBER IN HOME
21	REGIONAL HEALTH SERVICES INC	46	CORRY AREA SCHOOL DISTRICT
22	PENNSYLVANIA STATE UNIVERSITY	47	PARKER WHITE METAL COMPANY INC
23	YMCA	48	SARAH A REED CHILDRENS CENTER
24	CAREER CONCEPTS	49	BLAIR PAYROLL LLC
25	MCDONALD'S RESTAURANTS OF PA INC	50	NORTHWEST BANCSHARES INC

*Pennsylvania State Government includes all state employment except Pennsylvania State University, SEPTA and the System of Higher Education.

Employment

Erie County Total (Nonfarm) Employment (Based on the BLS Establishment Survey)



Source: Bureau of Labor Statistics (BLS) Current Employment Statistics Program

- ▶ The BLS's Current Employment Statistics program is a count of jobs, not people. The data are gathered directly from firms in Erie County each month. This means that if a person works in more than one job, she is counted twice. This program makes no distinction between part-time and full time jobs; a job is a job. If a person were to lose a full time job and take two part-time jobs, the employment numbers in this program would rise. It also counts people at their place of work, not their place of residence, so it includes those who commute into Erie County to work.
- ▶ Despite ups and downs, the long-run trend in employment in Erie County has clearly been up, at least through the late 1990s. More recently it has moved sideways, with a (hopefully temporary) drop during the last recession.
- ▶ Erie total employment grew by over 64% between January 1950 and May 2011, from 79,300 jobs to 130,100.
- ▶ Erie experienced significant growth in employment between 1961-1980 (56.0%) and again from 1983-2001 (32.5%).
- ▶ Erie experienced a significant decline in employment between 1950 -1959 (-9.3%), which may be surprising to those who look back to the 1950s as "the good old days."
- ▶ The recession of 1980 -1983 hit Erie employment especially hard, with 15.3% of all Erie jobs being lost—more than one in seven.
- ▶ Employment recovered slowly from the 2001-03 recession and did not reach the previous peak of 137,900 jobs (in September 2000) before the latest recession began.
- ▶ Employment dropped to a low of 122,100 in January 2010. We have to go all the way back to early 1994 to find an employment level that low. It has recovered some since; in May 2011 Erie employment was at one of the highest levels since 2008 with 130,100. But this is still nearly 8,000 jobs below the peak in 2000.

Industry Definitions and Redefinitions

The next sections deal with industrial breakdowns of employment, so it is necessary to first discuss industry definitions.

The Federal Government redefined its official industry classifications during the late 1990s and early 2000s to better reflect the realities of the contemporary economy. Items like cell phones and personal computers were the stuff of science fiction when the previous classification system (SIC) was designed in the 1930s. The new system is production-process oriented, rather than product oriented. The previous classification system was the Standard Industrial Classification (SIC, pronounced ess-eye-see) and the new system is called the North American Industrial Classification System (NAICS, pronounced "nakes"). While this redefinition will help in the analysis of the contemporary economy, it causes some problems in analyzing data through time (time-series analysis) since data in the NAICS format are often not comparable to earlier SIC data.

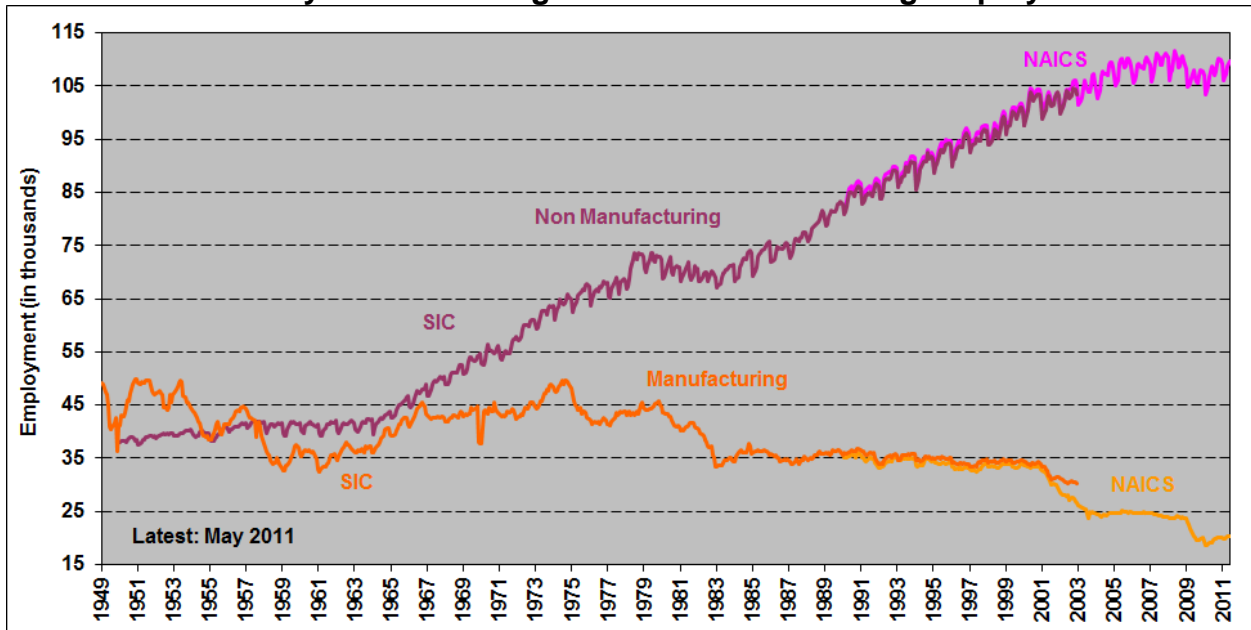
For example, newspaper publishing was listed as a manufacturing industry in the SIC system, but under NAICS is classified as an Information industry, which is *not* part of manufacturing. This change means that the NAICS manufacturing numbers will be lower than the SIC manufacturing numbers, not because of the disappearance of jobs but just because of the reclassification. And this can be misleading. There are many, many of these kinds of redefinitions that affect the data. For some data series, the relevant agency has gone back in time and recreated the data series according to the new NAICS definitions and we have overlapping data using both systems for some periods. The time series graphs in the following sections shows both data series when they are available. While the larger SIC and NAICS industry categories tend to move in parallel through time, there are some notable exceptions.

2007 NAICS Industry Categories

NAICS Code	Industry Title
11	Agriculture, Forestry, Fishing and Hunting
21	Mining, Quarrying, and Oil and Gas Extraction
22	Utilities
23	Construction
31-33	Manufacturing
42	Wholesale Trade
44-45	Retail Trade
48-49	Transportation and Warehousing
51	Information
52	Finance and Insurance
53	Real Estate and Rental and Leasing
54	Professional, Scientific, and Technical Services
55	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
61	Educational Services
62	Health Care and Social Assistance
71	Arts, Entertainment, and Recreation
72	Accommodation and Food Services
81	Other Services (except Public Administration)
92	Public Administration

A more detailed breakdown of the NAICS categories is given in Appendix A.

Erie County Manufacturing and Non-Manufacturing Employment



Source: Bureau of Labor Statistics (BLS), Current Employment Statistics Program

- ▶ This graph shows the two major industry categories, manufacturing and nonmanufacturing, and they have very different stories to tell.
- ▶ Manufacturing accounted for more than half of all Erie jobs in the early 1950s but only 15.6% currently. Nonmanufacturing accounts for 84.4% of employment now.
- ▶ Manufacturing employment reached its peak in Erie in November of 1950 at 49,900 jobs. In 2011 it accounts for about 20,000 jobs.
- ▶ From 1951 to 1959 Erie manufacturing employment fell, but grew from 1959 until 1974, nearly—but not quite--reaching the 1950 peak with employment of 49,700 in three months of 1974.
- ▶ The 1975 recession started a long slide in manufacturing employment that continues to the present time. Employment in this category tends to be relatively stable except during recessions, when severe decreases occur.
- ▶ The 1980-83 recession hit manufacturing especially hard, with the loss of 12,500 of its 45,800 jobs, or 27.3%, from late 1979 through December of 1983.
- ▶ Manufacturing employment hovered around the 35,000 level through the late 1980s and most of the 1990s.
- ▶ The recession of 2000-03 cut manufacturing employment levels by another 10,000 or so, down to the 25,000 range.
- ▶ After the latest recession, manufacturing employment levels dropped again by about 5,000, down to the 20,000 range.
- ▶ A cautionary comment: although manufacturing employment has decreased, that does not necessarily mean that manufacturing output has decreased. If productivity (output per worker) has increased over the years, output may have increased even as employment fell.
- ▶ Non-manufacturing employment, on the other hand, has shown a consistent pattern of growth, interrupted only by the 1980s recession and the latest recession.
- ▶ Other recessions during the last 60 years have meant at most a temporary slowdown in the rate of growth of the nonmanufacturing sector rather than actual decline.

An alternative way of disaggregating industries is into Goods-Producing and Service-Providing categories, rather than manufacturing and non-manufacturing. This is the currently preferred breakdown.

Major Components of the Goods-Producing and Service-Providing Industries

(See Appendix A for details of each sector.)

Goods- Producing Industries

Natural resources and mining

NAICS 1133—Logging

Sector 21—Mining

Construction

Sector 23—Construction

Manufacturing

Sectors 31, 32, 33—Manufacturing

Durable goods (NAICS 321, 327, 331, 332, 333, 334, 335, 336, 337, 339)

Nondurable goods (NAICS 311, 312, 313, 314, 315, 316, 322, 323, 324, 325, 326)

Service- Providing Industries

Trade, transportation, and utilities

Sector 42--Wholesale trade

Sectors 44, 45--Retail trade

Sectors 48, 49--Transportation and warehousing

Sector 22—Utilities

Information

Sector 51—Information

Financial activities

Sector 52--Finance and insurance

Sector 53--Real estate and rental and leasing

Professional and business services

Sector 54--Professional, scientific, and technical services

Sector 55--Management of companies and enterprises

Sector 56--Administrative and waste services

Education and health services

Sector 61--Educational services

Sector 62--Health care and social assistance

Leisure and hospitality

Sector 71--Arts, entertainment, and recreation

Sector 72--Accommodations and food services

Other services

Sector 81--Other services

Public Administration (Government)

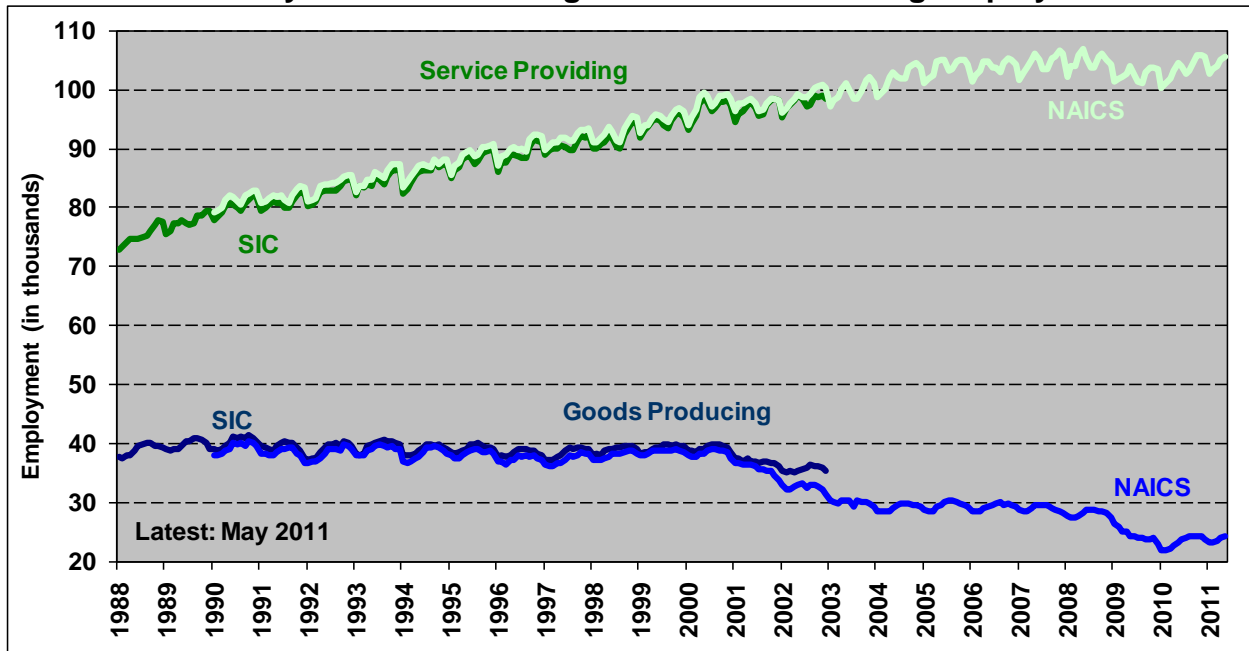
Federal

State

Local

Source: U.S. Bureau of Labor Statistics

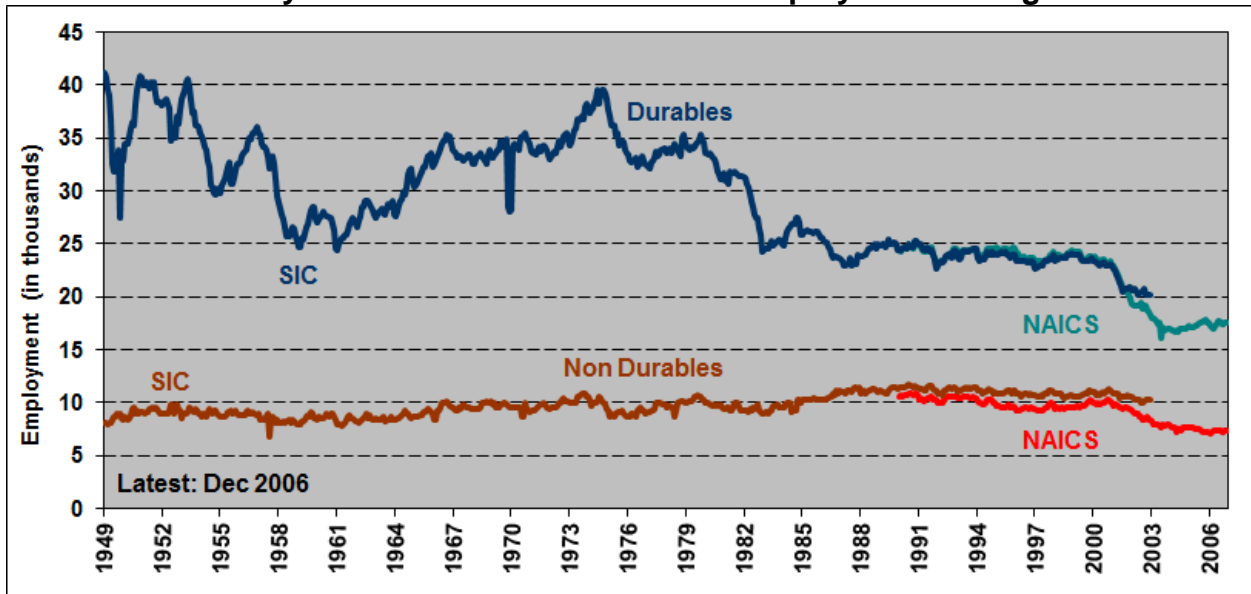
Erie County Service-Providing and Goods-Producing Employment



Source: Bureau of Labor Statistics (BLS), Current Employment Statistics Program

- ▶ Goods-producing employment (manufacturing, construction, mining and logging) in Erie County remained relatively unchanged in the 38,000 range from 1990 until 2000, falling during the 2000 – 2003 recession to the 30,000 range, then remained relatively flat again from 2003 to 2007.
- ▶ Goods-producing employment in Erie fell off again in the latest recession, reaching a low point of 21,800 in February 2010. It recovered to 24,400 by May 2011.
- ▶ Service-providing employment (“everything else”) in Erie grew from 1990 to 2011, from approximately 79,000 jobs to over 105,000.
- ▶ Growth in the service-providing sector was fairly steady, but the recession of 2000-2003 and the latest recession did slow this growth at least temporarily.
- ▶ The service-providing sector in Erie County is more than four times as large as the goods-producing sector.

Erie County Durables and Non-Durables Employment through 2006



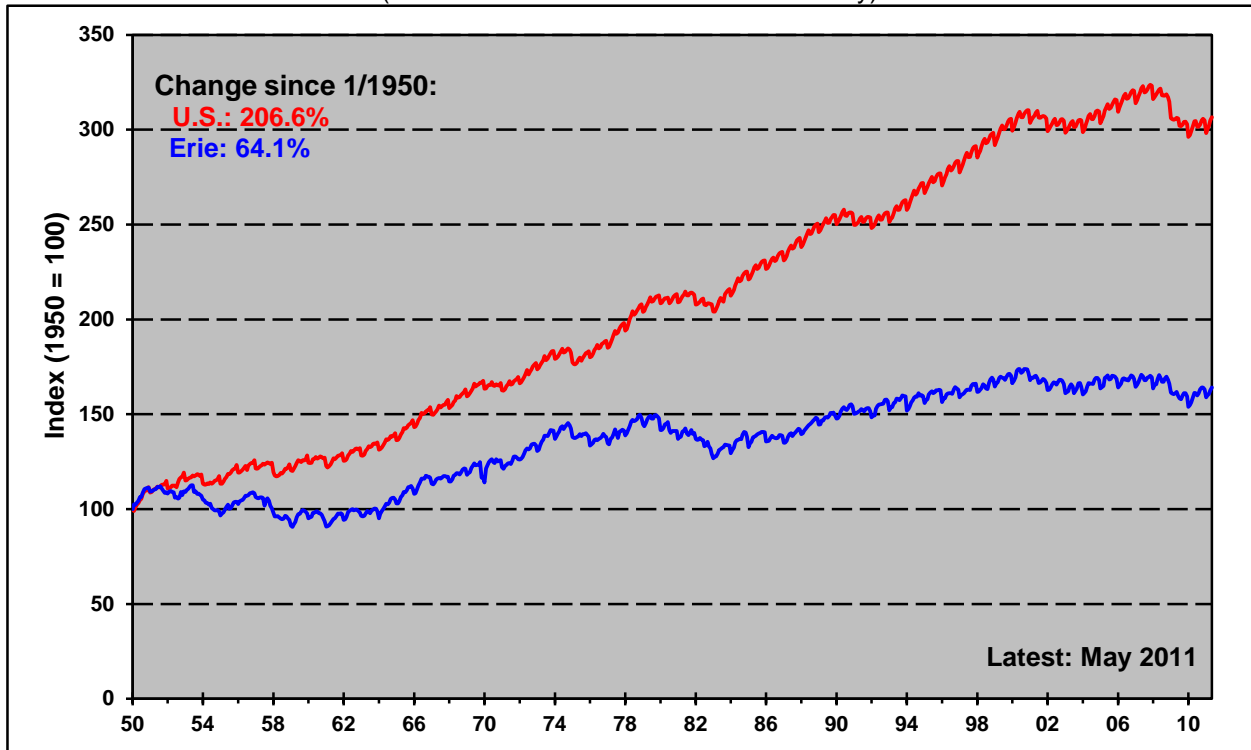
Source: Bureau of Labor Statistics (BLS), Current Employment Statistics Program

- ▶ The government stopped reporting on durables and nondurables as separate categories at the end of 2006.
- ▶ Durable manufactured goods (those with a life of three years or more) have clearly been a much larger part of the Erie manufacturing sector than nondurables, accounting for over 80% of the manufacturing sector in the 1950s. As of 2006, durables still accounted for about 70% of the manufacturing sector.
- ▶ Durables employment in Erie fluctuated greatly between 1949 and 1975; it is one of the area's most unstable sectors. It was hit especially hard during the 1975 and 1983 recessions.
- ▶ Durables experienced relatively flat employment during the late 1980s thru the early 1990s, with a decline since the late 1990s.
- ▶ Nondurables employment, on the other hand, has been relatively stable and even exhibited a slight increase from the late 1950s to the 1990s.
- ▶ More recently, nondurables employment has declined somewhat. From 1949 until 2001, non-durable employment in Erie remained constant with a decline occurring between 2001 and 2006.

NAICS	Manufacturing Nondurables
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing
326	Plastics and Rubber Products Manufacturing

NAICS	Manufacturing Durables
321	Wood Product Manufacturing
327	Nonmetallic Mineral Product Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing

Erie and U.S. Employment Index (Based on the BLS Establishment Survey)

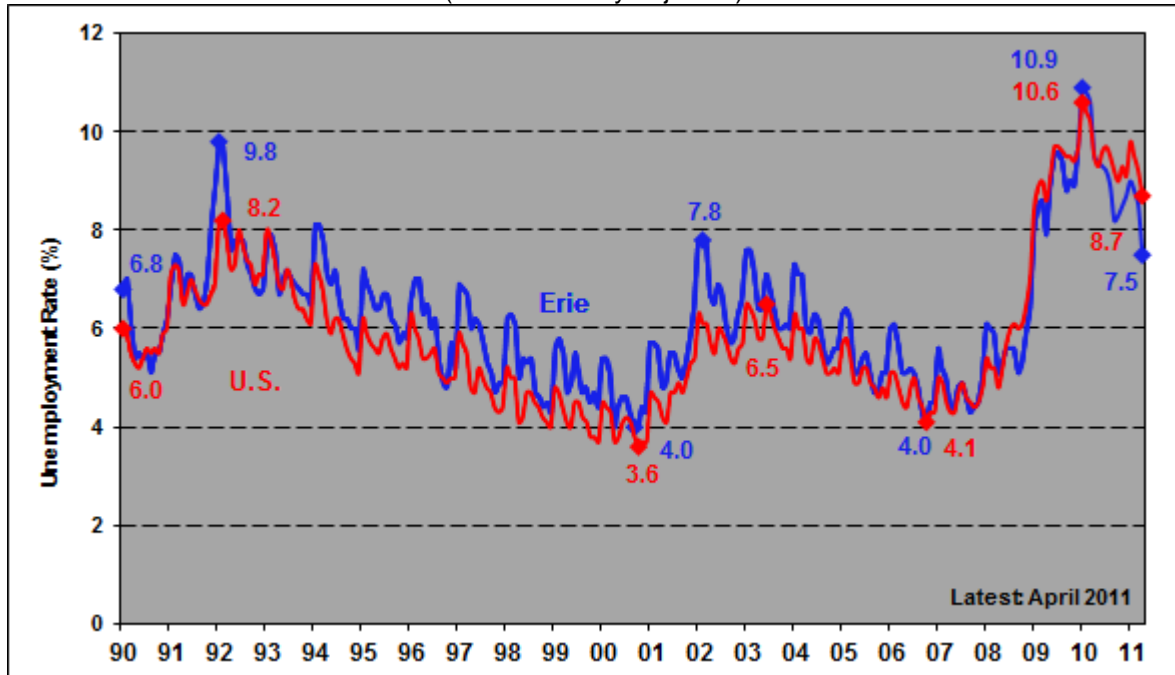


Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics Program

- ▶ Between January 1950 and May 2011, both Erie and U.S. employment grew substantially overall.
- ▶ Erie grew by 64.1% over the period, adding 50,800 jobs.
- ▶ During the same period, U.S. employment grew by 206.6%. As with income, employment in Erie grew but at a rate substantially less than that of the nation.
- ▶ Employment growth in Erie has been stagnant since about 2004.
- ▶ Along with the different trend rates of growth, this graph shows that recessions tended to hit the Erie area harder than the national economy. Especially noticeable is the 1980-84 recession.
- ▶ The latest recession seems to be an exception. As a percentage of jobs the U.S. saw a greater loss than Erie. (More information about Erie recessions can be found in the ERIE Special Studies section of the *Guide*.)

Unemployment

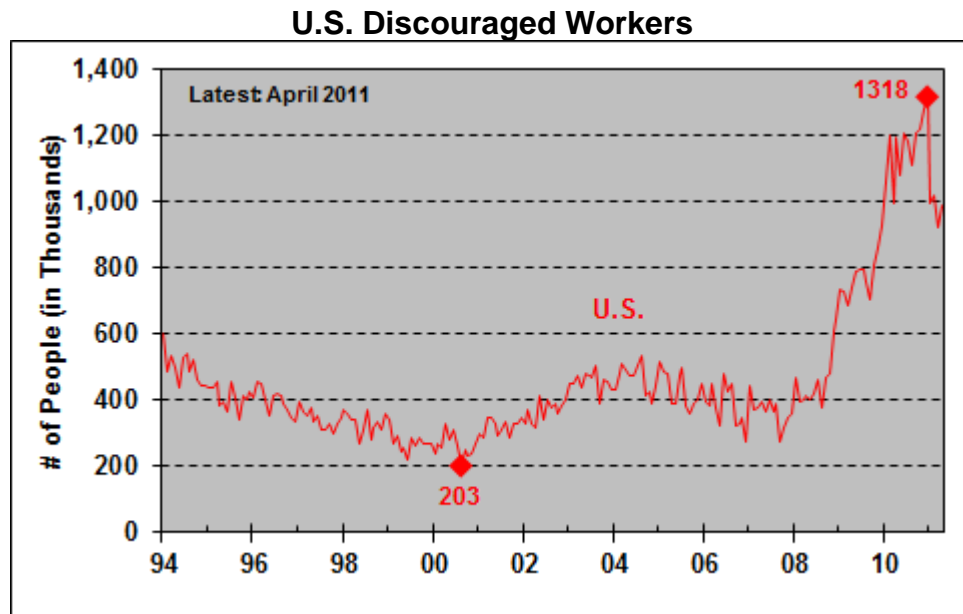
Erie and U.S. Unemployment Rates (Not seasonally adjusted)



Source: U.S. Bureau of Labor Statistics (BLS)

- ▶ Persons are classified by the BLS as “unemployed” if they do not have a job, but have actively looked for work in the prior four weeks, and are currently available for work. Those who are not looking for work, if unemployed, are not officially counted as being in the labor force, and so are not officially “unemployed.”
- ▶ Between January 1990 and April 2011, Erie County and the U.S. experienced similar trends in the unemployment rate: rising during the recessions of 1990-92, 2000-03, and 2007-2010, and falling otherwise.
- ▶ Since January 1990, the average unemployment rate in Erie has been 6.3%, although it has varied significantly around that average. The average rate for the U.S. has been 5.9%.
- ▶ Although Erie’s unemployment rate has averaged about 0.4 percentage points higher than the U.S. rate, during the most recent recession Erie’s rate was below the national rate for an extended period of months, which is very unusual for Erie.
- ▶ Erie’s unemployment rate was still below that of the U.S. as of April 2011 with 7.5 percent unemployment versus a U.S. unemployment rate of 8.7 percent.
- ▶ Both the U.S. and Erie attained quite low unemployment rates in 2000, just before the recession started, and again in 2006 before the 2007 recession.
- ▶ Erie’s unemployment rate tends to rise more during recessions than the national rate, and fall more during recoveries. In other words, the Erie economy is less stable over the business cycle than the national economy.
- ▶ Erie’s greater instability can be explained partially by our industry mix. Some industries tend to be much more unstable over the business cycle than others, and Erie has more than its share of those industries. These include especially the durable manufacturing industries. During a recession, consumers find ways to avoid buying these big-ticket items and make do with their older cars, washing machines, etc. The result is that demand for durables falls off more than proportionately during recessions, then picks up more than proportionately during upturns.

Discouraged Workers

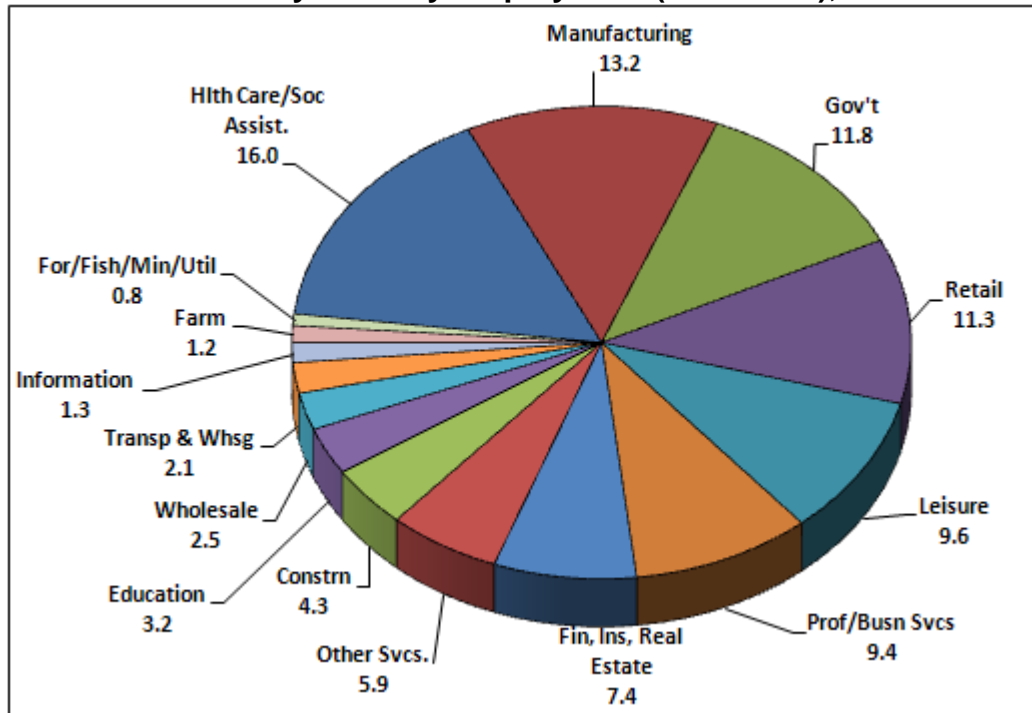


Source: U.S. Bureau of Labor Statistics (BLS)

- ▶ Along with the unemployment rate, it is also important to examine the number of discouraged workers. Discouraged workers are those that have given up on looking for a job and drop out of the labor force entirely. Technically: "...those persons not in the labor force who want and are available for work, and who have looked for a job sometime in the prior 12 months, but were not counted as unemployed because they had not searched for work in the 4 weeks preceding the survey. ...discouraged workers were not currently looking for work specifically because they believed no jobs were available for them or there were none for which they would qualify." (U.S. Bureau of Labor Statistics)
- ▶ The federal government does not publish data on discouraged workers for local areas, but does publish national data starting in 1994.
- ▶ From 1994 through the fall of 2008, the number of discouraged workers in the U.S. averaged about 380,000.
- ▶ The recession that started in December 2007 pushed more people into the ranks of discouraged workers, which reached a peak over 1.3 million in December 2010.
- ▶ As of April 2011, the number of discouraged workers in the U.S. was "down" to 989,000. This is still much higher than the trend from 1994 through 2008.
- ▶ Since 1994, if the discouraged workers had been added into the ranks of the officially unemployed and the labor force, the unemployment rate would have been about 0.3 percentage points higher on average. In December 2010 when the number of discouraged workers was at its peak, they would have added 0.8 percentage points to the unemployment rate.

Industry Employment

Erie County Industry Employment (% of Total), 2009

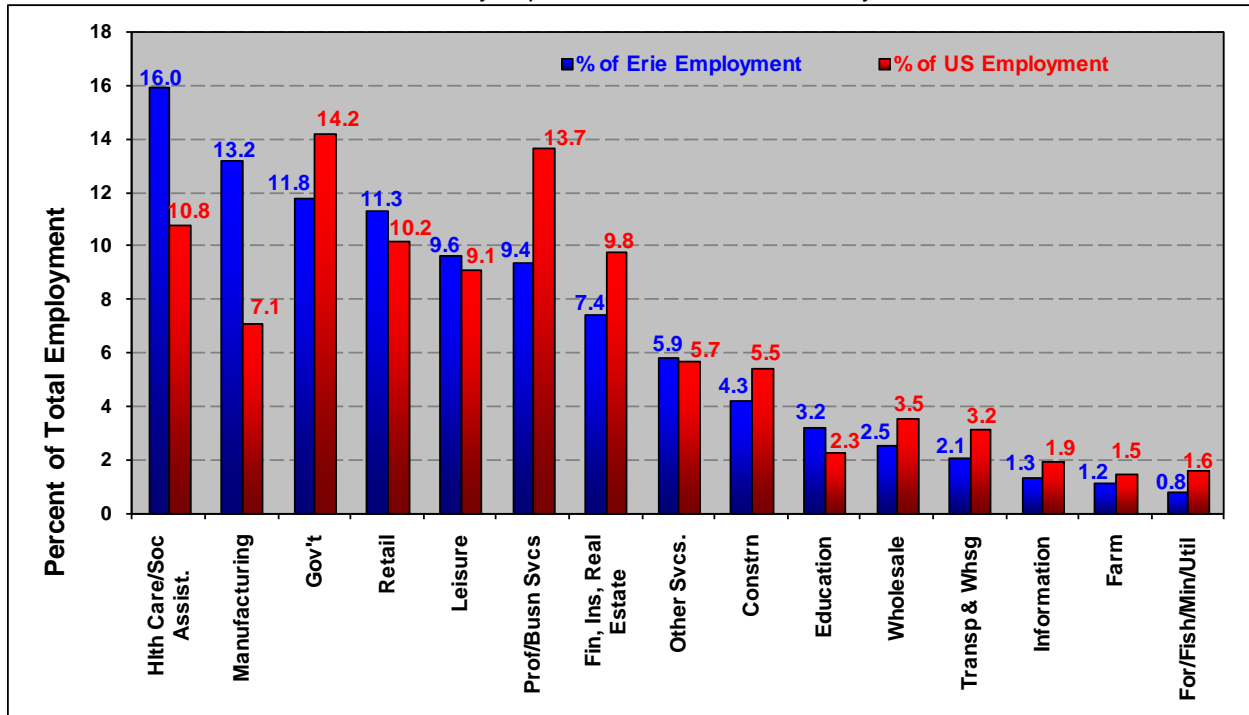


Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ In 2009, health care and social assistance was Erie's largest single industry, accounting for 16% of Erie's total employment, about one job in every six.
- ▶ Other industries that made up a significant portion of total employment included manufacturing (13.2%), government (11.8%), and retail (11.3%).
- ▶ The industries that made up the smallest percentage of total employment were forestry/fishing/mining/utilities (0.8%) and farming (1.2%).
- ▶ Components (definitions) of these industry categories can be found in Appendix A.

Erie County and U.S. Industry Employment (% of Total), 2009

ranked by importance in the Erie economy



Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ A comparison of Erie's industrial composition in 2009 with that of the nation shows that Erie had more than the national average share in:
 - health care and social assistance (16.0% Erie vs. 10.8% U.S.)
 - manufacturing (13.2% vs. 7.1%)
 - retail (11.3% vs. 10.2%)
 - leisure (9.6% vs. 9.1%)
 - other services (5.9% vs. 5.7%) and
 - education (3.2% vs. 2.3%).
- ▶ Industries in which Erie had a notably smaller share of employment than typical for the nation were:
 - government (11.8% vs. 14.2%)
 - professional and business services (9.4% vs. 13.7%)
 - finance, insurance and real estate (7.4% vs. 9.8%)
 - construction (4.3% vs. 5.5%)
 - wholesale trade (2.5% vs. 3.5%)
 - transportation and warehousing (2.1% vs. 3.2%)
 - information (1.3% vs. 1.9%)
 - farming (1.2% vs. 1.5%) and
 - forestry, fishing, mining and utilities (0.8% vs. 1.6%)

Erie County Industry Employment Relative to U.S., 2009

ranked by location quotient

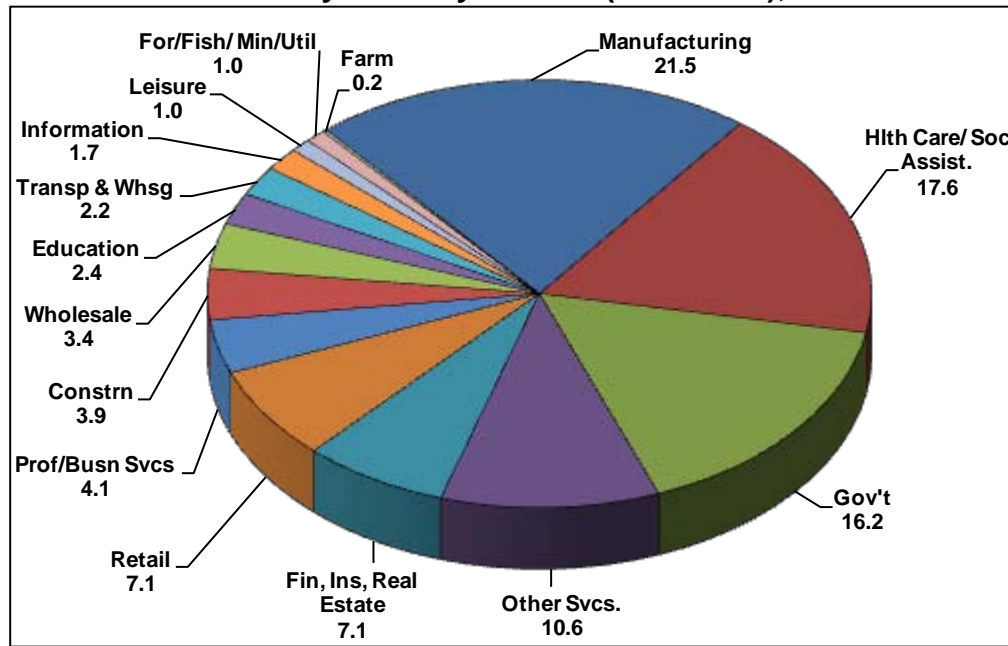
Industry	% of Erie Employment	% of US Employment	Location Quotient: Erie% / US%
Manufacturing	13.20	7.13	1.85
Health Care & Social Assistance	15.95	10.81	1.48
Education	3.23	2.26	1.43
Retail Trade	11.30	10.18	1.11
Leisure	9.65	9.11	1.06
Other Services	5.86	5.69	1.03
Government	11.78	14.18	0.83
Construction	4.26	5.47	0.78
Farming	1.16	1.51	0.77
Finance, Insurance & Real Estate	7.45	9.76	0.76
Wholesale Trade	2.55	3.55	0.72
Information	1.34	1.93	0.69
Professional & Business Services	9.37	13.65	0.69
Transportation & Warehousing	2.09	3.16	0.66
Forestry/Fishing/Mining/Utilities	0.81	1.61	0.50
Total	100.00	100.00	

Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ A quick way to identify Erie's specialization by industry is to calculate the Location Quotient (LQ), which is simply Erie's % in an industry divided by the U.S. % in that industry. If the LQ is greater than 1.0, Erie has more than the national average in that industry; it is one of the area's specialties.
- ▶ The table above shows Erie's specialties at the top, with LQs greater than 1.0. The implication is that we produce more than we consume in these industries, and thus export them to other portions of the country and the world, bringing income into the county. The opposite is true for the industries at the bottom of the table, with LQs less than 1.0.
- ▶ In 2009, manufacturing had an LQ of 1.85, which means that it made up almost twice as large a share of total employment in Erie as it did in the U.S. Thus, although manufacturing employment has fallen in Erie in the last three decades, manufacturing is still one of Erie's specialties compared to other places in the nation.
- ▶ Other Erie specialties are health care and social assistance, education, retail, leisure, and the other services industries. In all of these, people travel from elsewhere to Erie to buy the output (goods or services) of our establishments. While Erie does not typically export a physical product in these industries, it has the same effect of bringing income into the county from outside.
- ▶ In all the other industries, Erie has an LQ less than 1.0, implying that we import those goods and services. They may represent an opportunity for "import substitution", if Erie begins producing more of the output of those industries for local consumption rather than buying them from outside the county and sending Erie dollars outside the region.

Industry Income

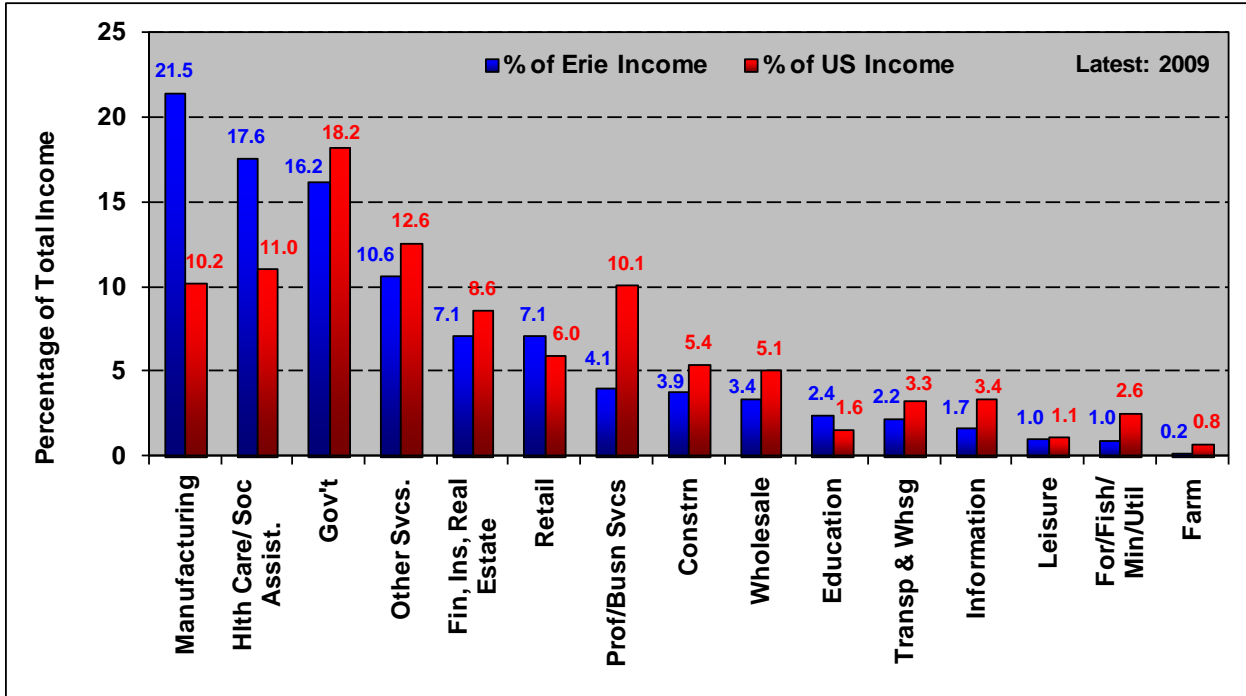
Erie County Industry Income (% of Total), 2009



Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ Erie's industrial distribution by income varies somewhat from its distribution by employment, reflecting differences in earnings across industries. Higher paying industries will have a larger share of the income pie than of the employment pie, and lower paying industries will have a smaller share of the income pie than of the employment pie.
- ▶ In 2009, manufacturing accounted for 21.5% of total industry income in Erie, compared with 13.2% of Erie employment. A little over one dollar of every five in Erie earnings comes from a manufacturing job. Clearly, manufacturing is still a very key component of Erie's economy.
- ▶ Other industries that provided a significant portion of industry income include health care/social assistance (17.6%) and government (16.2%).
- ▶ The industries that made up the smallest percentage of industry income were farming (0.2%) and forestry/fishing/mining/utilities (1.0%).

Erie County and U.S. Industry Income (% of Total), 2009
ranked by importance in the Erie economy



Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ The manufacturing, health care/social assistance, retail, and education sectors made up larger percentages of total income in Erie than they did in the U.S. in 2009. These are industries in which Erie specializes.
- ▶ All other industries accounted for a smaller percentage of total industry income in Erie than they did in the U.S.
- ▶ More than half of all income in the Erie economy comes from the manufacturing, health care/social assistance and government sectors.

Erie County Industry Income Relative to U.S., 2009

ranked by location quotient

Industry	% of Erie Income	% of US Income	Location Quotient: Erie% / US%
Manufacturing	21.46	10.22	2.10
Health Care & Social Assistance	17.58	11.02	1.59
Education	2.42	1.60	1.51
Retail Trade	7.07	5.96	1.19
Leisure	1.02	1.12	0.91
Government	16.24	18.23	0.89
Other Services	10.63	12.60	0.84
Finance, Insurance & Real Estate	7.08	8.63	0.82
Construction	3.86	5.42	0.71
Transportation & Warehousing	2.24	3.29	0.68
Wholesale Trade	3.42	5.09	0.67
Information	1.74	3.40	0.51
Professional & Business Services	4.08	10.06	0.40
Forestry/Fishing/Mining/Utilities	0.99	2.57	0.39
Farming	0.19	0.78	0.24
Total	100.00	100.00	

Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ Again, the Location Quotient (LQ) identifies industries in which the area specializes compared to the nation. It is simply Erie's % in an industry divided by the U.S. % in that industry. If the LQ is greater than 1.0, Erie has more than the national average in that industry; it is one of the area's specialties.
- ▶ In 2009, manufacturing had an income LQ of 2.10, which means that the share of Erie income coming from manufacturing earnings was more than twice the share manufacturing has nationally. Manufacturing is much more important to Erie than to the nation as a whole.
- ▶ Health care and education are other sectors with LQs significantly greater than one—industries in which Erie specializes compared to the nation.
- ▶ At the other end of the spectrum, professional and business services, forestry/fishing/mining/utilities, and farming had LQs less than 0.5, and information, wholesale trade, and transportation and warehousing all had LQs in the .50 to .70 range. These are all industries that are under-represented in Erie in terms of income generated.

Erie Employment and Income Location Quotients, 2009

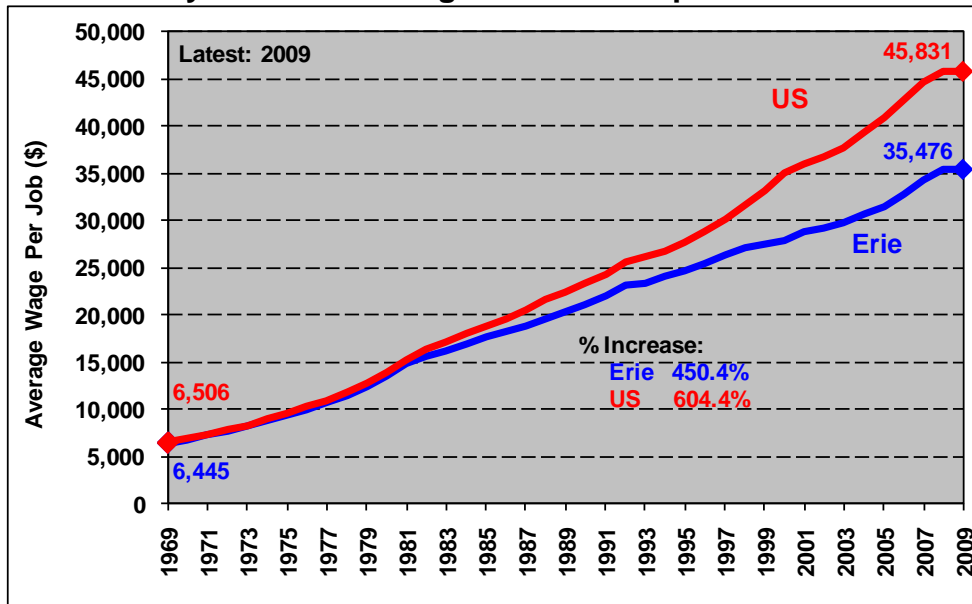
Industry	Employment Location Quotient	Income Location Quotient
Manufacturing	1.85	2.10
Health Care & Social Assistance	1.48	1.59
Education	1.43	1.51
Retail Trade	1.11	1.19
Leisure	1.06	0.91
Government	0.83	0.89
Other Services	1.03	0.84
Finance, Insurance & Real Estate	0.76	0.82
Construction	0.78	0.71
Transportation & Warehousing	0.66	0.68
Wholesale Trade	0.72	0.67
Information	0.69	0.51
Professional & Business Services	0.69	0.40
Forestry/Fishing/Mining/Utilities	0.50	0.39
Farming	0.77	0.24

Source: Calculated from BEA REIS data.

- ▶ A comparison of the industry employment and income location quotients finds that most industries fall above or below the 1.0 reference value using both measures. Those industries could be considered Erie's exporting activities.
- ▶ Two exceptions are the leisure and other services industries, both of which have employment LQs greater than one, but income LQs less than one. They appear to be export industries when we look at the concentration of employment in them, but not when we look at the income they generate.
- ▶ When the income LQ is greater than the employment LQ it means that workers in that industry are garnering a greater share of local income than would be expected from their share of local employment. That is, they are paid more than would be expected from patterns *for that industry nationally*. This implies higher pay levels locally than elsewhere in this industry. This may be due to inordinately high wages locally, but it may also be due to a different mix of skills or occupations locally than elsewhere. For example, if Erie's retail trade industry were composed primarily of headquarters of national retail chains rather than actual retail stores, we would expect to see a higher than average level of income in that industry locally due to the concentration of top executives here compared to store employees. An income LQ higher than the employment LQ can also be explained by a greater concentration of full-time rather than part-time workers locally, or more overtime work.
- ▶ The income LQ was greater than the employment LQ in 2009 for the top four industries in the list, all of which are Erie specialties. It was also a bit higher for income than employment for government, finance, insurance and real estate, and transportation and warehousing, which had LQs less than 1.0.
- ▶ The leisure and other services industries are interesting cases; they had LQs equal to 1.06 and 1.03 respectively for employment but quite a bit less than one (0.91 and 0.84) for income. This implies that leisure and other services industry workers in Erie earn less than their counterparts in the same industry category elsewhere.

Average Wage

Erie County and U.S. Average Annual Compensation⁷ Per Job



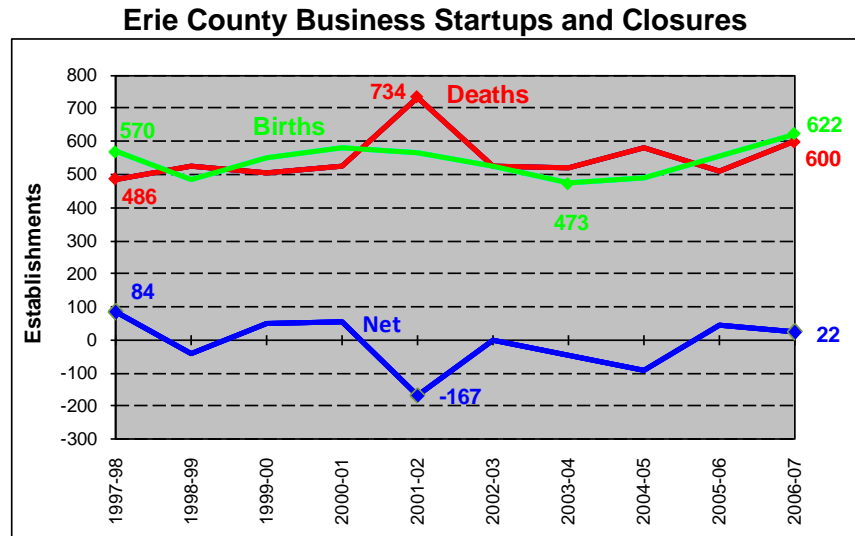
Source: U.S. Bureau of Economic Analysis (BEA), Regional Economic Information System

- ▶ The story of Erie nominal⁸ compensation (we'll use "wage" for shorthand) is one of growth throughout the period. We note that the average wage grew significantly faster in the nation than in Erie—a familiar pattern in other measures of the Erie economy. The average wage grew by 450.4% in Erie and 604.4% nationally.
- ▶ In 1969, the national average annual wage per job was nearly the same in Erie (\$6,445) and the U.S. (\$6,506). The U.S. wage was less than 1% greater than the Erie wage at that point.
- ▶ The Erie and U.S. wage stayed close in the early years of this dataset, although the U.S. wage grew a little faster. By the beginning of the 1980 recession, the U.S. wage was only 3.4% greater than the Erie wage.
- ▶ Since then, the Erie and U.S. wages have diverged, so much so that by 2009 the U.S. wage was 29.2% greater than the Erie wage.
- ▶ In 2009, the average wage per job was \$35,476 in Erie and \$45,831 in the U.S., a difference of \$10,355.
- ▶ Caution! This difference does not necessarily mean that an Erie worker is paid less for the same job than workers elsewhere. The average may differ between Erie and the U.S. due to the fact that we have different industries and occupations here than the national average, our workers have different amounts of skill or experience, and the cost of living is less here.
- ▶ Although this analysis has not been adjusted for inflation over the years, the percentage differences between the Erie and U.S. wages would still be the same, since inflation affects dollars in Erie and the U.S. in the same amount. Only the dollar amount of the differential between the two areas would be different, and the growth rates.

⁷ Wage and salary disbursements consists of the monetary remuneration of employees, including corporate officers' salaries and bonuses, commissions, pay-in-kind, incentive payments, and tips. It reflects the amount of payments disbursed, but not necessarily earned during the year. Wage and salary disbursements is measured before deductions, such as social security contributions and union dues. Wage and salary disbursements includes stock options of nonqualified plans at the time that they have been exercised by the individual. Stock options are reported in wage and salary disbursements. The value that is included in wages is the difference between the exercise price and the price that the stock options were granted. Source: BEA.

⁸ Not adjusted for inflation.

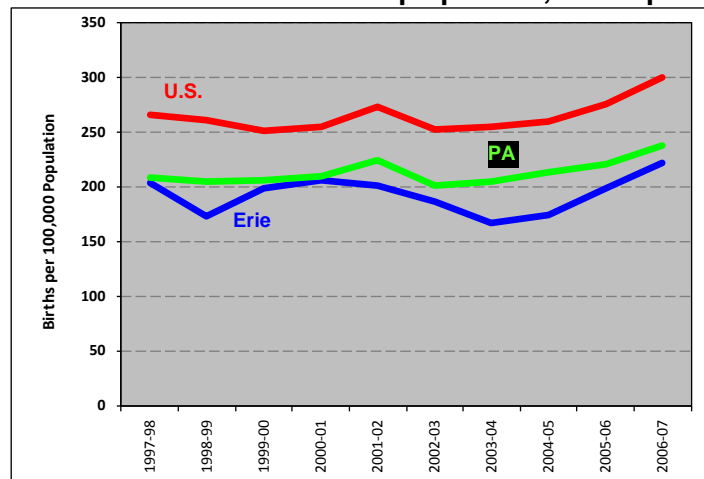
Business Startups



Source: U.S. Census Bureau, Statistics of U.S. Businesses

- ▶ Over the 1997-2007 period new business establishments⁹ in Erie County fluctuated from 473 to 622 per year.
- ▶ The number of startups has risen in each of the last four years, but we're reluctant to call this a trend since the data end just as the most recent recession was beginning.
- ▶ Establishment closures ranged from 486 to a dramatic peak at 734 in 2001-2002.
- ▶ On net, Erie added establishments in five of these ten years, lost establishments in four, and broke even in one. During this period, there was a net loss of 91 establishments.
- ▶ Over the ten years since 1997, Erie started fewer new business the either PA or the U.S., on a per capita basis.

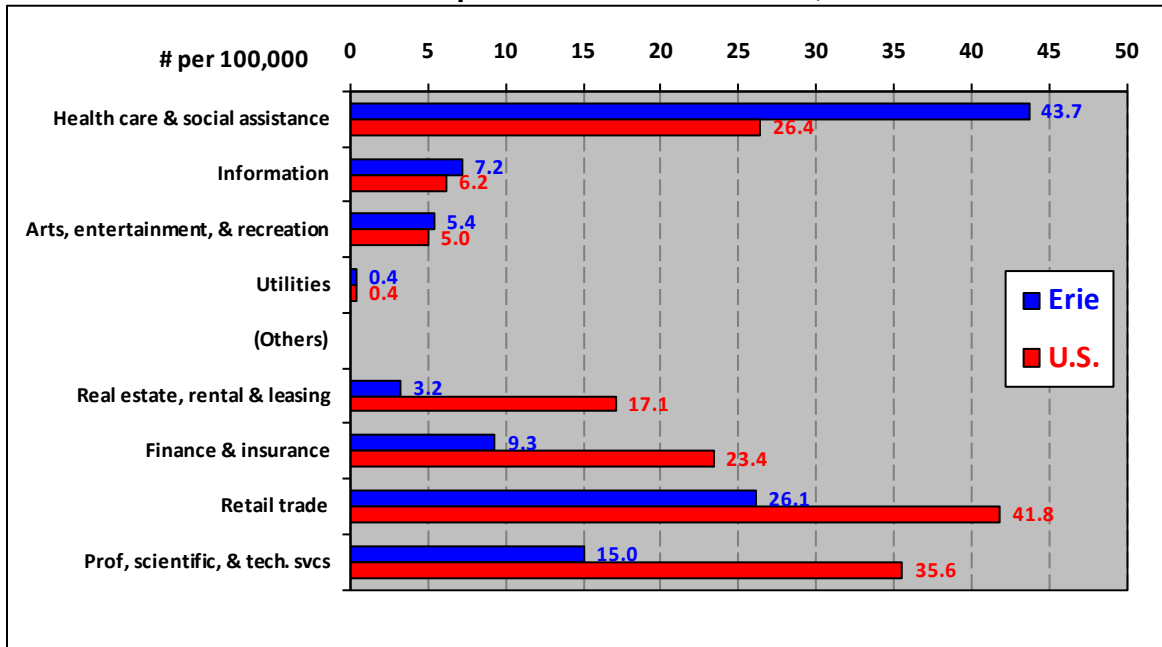
Business Establishment Startups per 100,000 Population



Source: U.S. Census Bureau, Statistics of U.S. Businesses

⁹ There is a difference between an establishment and a firm. By definition an establishment is “a single physical location where business is conducted or where services or industrial operations are performed.” A firm “is a business organization consisting of one or more domestic establishments in the same state and industry that were specified under common ownership or control. The firm and the establishment are the same for single-establishment firms. For each multi-establishment firm, establishments in the same industry within a state will be counted as one firm” (U.S. Census Bureau, Statistics of U.S. Businesses).

Business Startups for Selected Industries, 2006-07

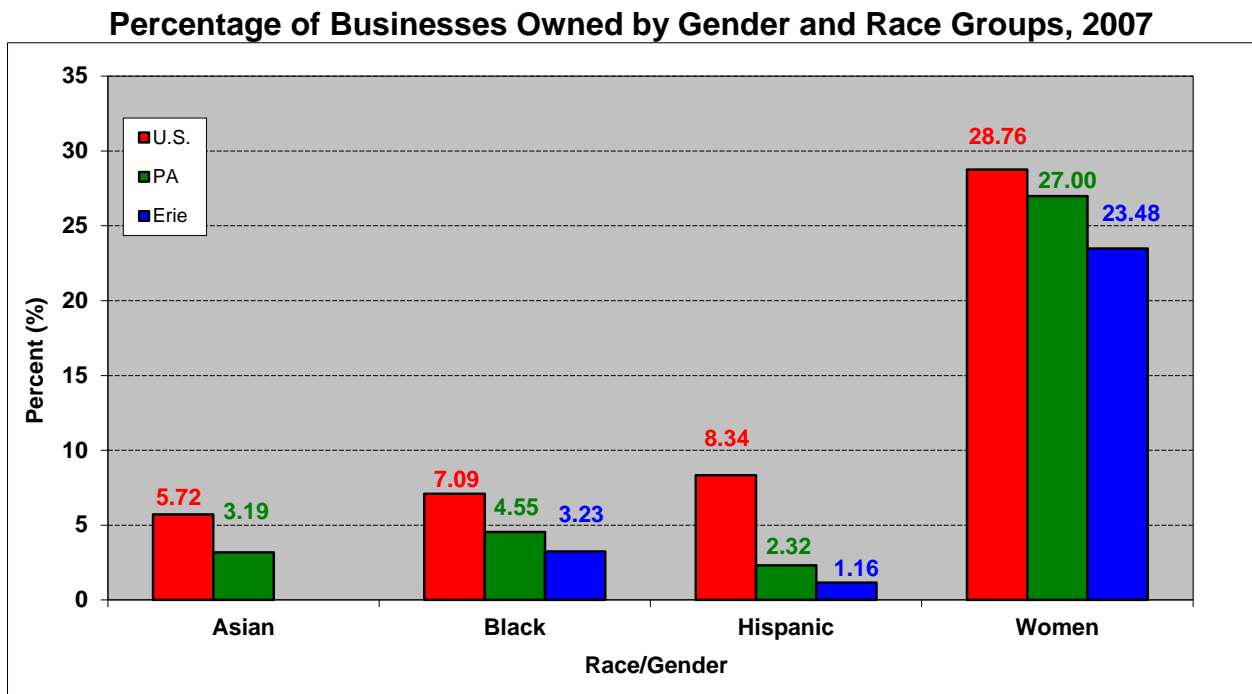


Source: U.S. Census Bureau, Statistics of U.S. Businesses

- ▶ In 2006-2007, Erie had significantly more startups in the health care and social assistance sector than either PA or the nation, per 100,000 people. It also had more than the national average number of startups in the information sector and in the arts, entertainment and recreation industries. In other industry sectors it lagged the national rates, sometimes by very large amounts.
- ▶ The following table provides data for all industries, in order of most births per capita in Erie.

Industry (2006-2007)	U.S.		PA		Erie		Erie-U.S. Births/100,000 People Difference	Erie-PA Births/100,000 People Difference
	Births	Births/100,000 People	Births	Births/100,000 People	Births	Births/100,000 People		
Health care & social assistance	79,592	26.41	3,178	25.49	122	43.67	17.26	18.18
Accommodation & Food Services	87,757	29.12	3,559	28.55	74	26.49	-2.63	-2.06
Construction	105,204	34.91	3,141	25.20	74	26.49	-8.42	1.29
Retail Trade	126,118	41.84	4,315	34.61	73	26.13	-15.71	-8.48
Other services (except public admin.)	69,453	23.04	2,484	19.93	54	19.33	-3.71	-0.60
Prof., scientific, & tech. serv.	107,198	35.57	3,229	25.90	42	15.03	-20.53	-10.87
Admin., support, waste mgmt., remed. serv	51,252	17.01	1,695	13.60	35	12.53	-4.48	-1.07
Wholesale trade	42,298	14.03	1,261	10.12	26	9.31	-4.73	-0.81
Finance & insurance	70,467	23.38	2,124	17.04	26	9.31	-14.07	-7.73
Manufacturing	23,858	7.92	859	6.89	22	7.88	-0.04	0.98
Transportation & Warehousing	30,499	10.12	977	7.84	21	7.52	-2.60	-0.32
Information	18,594	6.17	560	4.49	20	7.16	0.99	2.67
Arts, entertainment, & recreation	15,028	4.99	429	3.44	15	5.37	0.38	1.93
Real estate & rental & leasing	51,445	17.07	1,095	8.78	9	3.22	-13.85	-5.56
Educational services	10,055	3.34	294	2.36	3	1.07	-2.26	-1.28
Mining	3,547	1.18	110	0.88	2	0.72	-0.46	-0.17
Management of companies & enterprises	6,466	2.15	255	2.05	2	0.72	-1.43	-1.33
Utilities	1,108	0.37	51	0.41	1	0.36	-0.01	-0.05
Unclassified	3,267	1.08	57	0.46	1	0.36	-0.73	-0.10
Agriculture, forestry, fishing, & hunting	2,555	0.85	62	0.50	0	0.00	-0.85	-0.50
Total	905,761	300.52	29,735	238.52	622	222.65	-77.87	-15.87

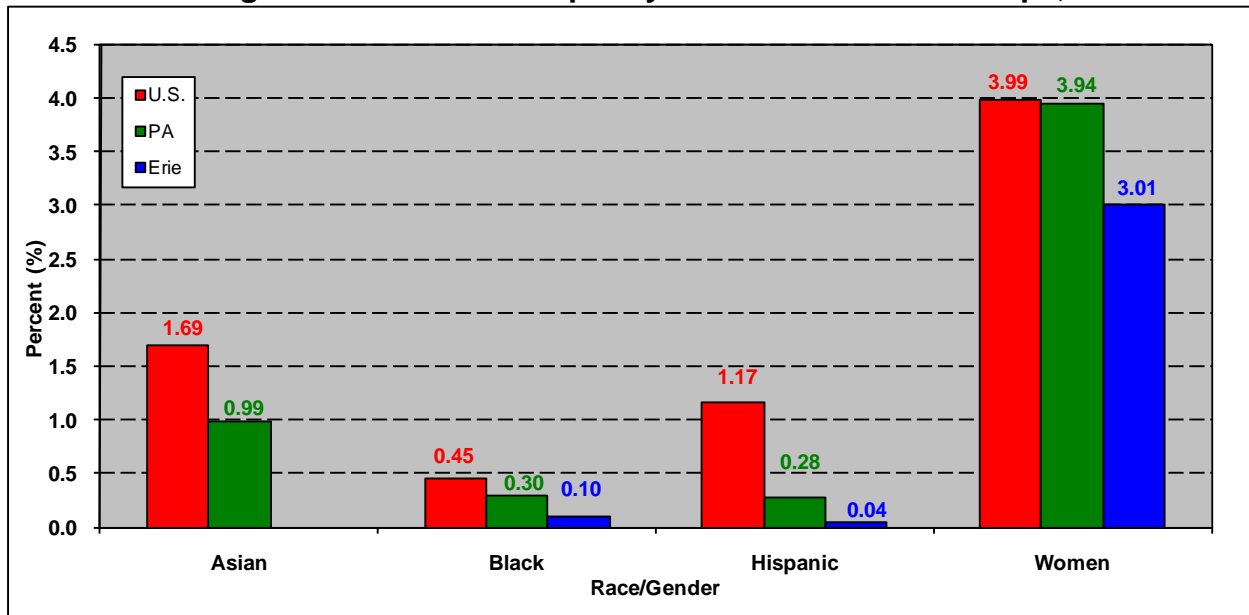
Minority-Owned and Woman-Owned Businesses



Source: U.S. Census Bureau, Survey of Business Owners Program

- ▶ In 2007, the percentage of total businesses owned by minorities and women in Erie County lagged behind both PA and the U.S.
- ▶ Women owned about 23.5% of Erie businesses, compared with 27.0% statewide and 28.8% nationally. Woman-owned businesses in Erie are up slightly from 2002, when they owned 22.0% of all businesses.
- ▶ Blacks owned 3.23% of Erie businesses in 2007, which is a 233% increase from 2002 when blacks owned 0.97% of Erie businesses.
- ▶ Hispanics made up 1.16% of total business ownership in Erie, which is significantly less than state and national rates.
- ▶ Data on Asian business ownership for Erie was not available for 2007. In 2002, Asian-owned businesses accounted for only 0.76% of total businesses.

Percentage of Sales and Receipts by Gender and Race Groups, 2007

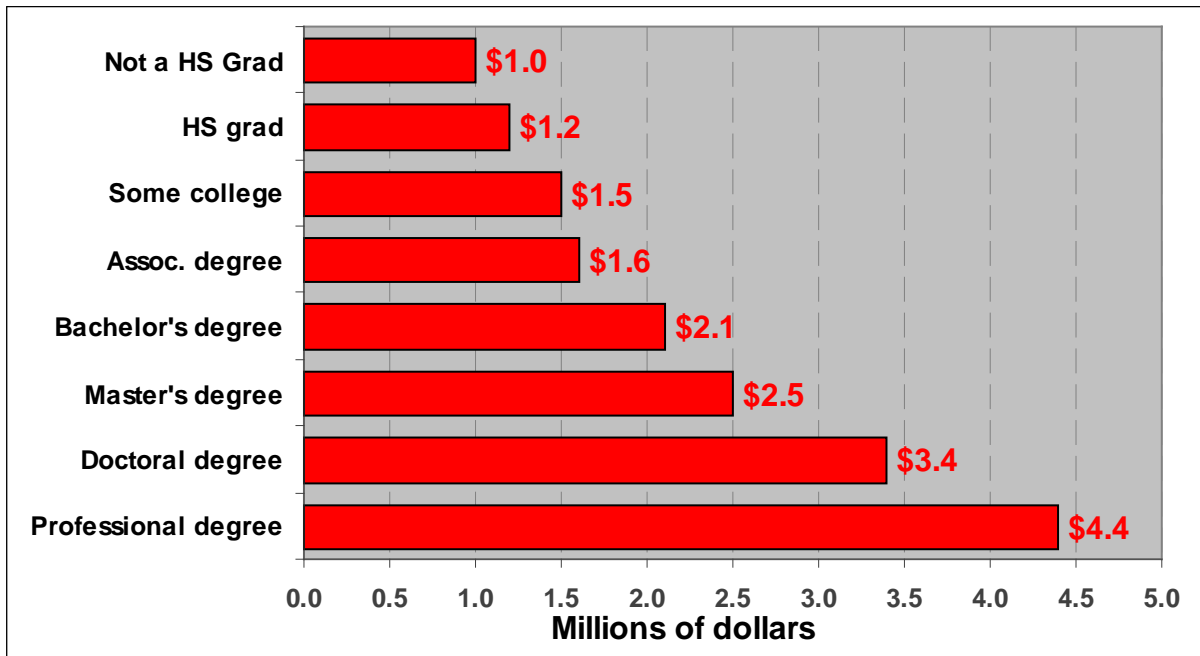


Source: U.S. Census Bureau, Survey of Business Owners Program

- ▶ In all groups, the percentage of 2007 sales generated by woman- and minority-owned businesses is significantly less than the percentage of businesses owned (as shown in the previous graph). This implies that the typical woman- and minority-owned business is smaller than the average.
- ▶ In Erie Black-owned businesses accounted for only 0.1% and Hispanic-owned businesses had only 0.04% of sales in 2007. Both of these are significantly less than the PA and national averages.
- ▶ All race and gender categories for Erie, PA, and the U.S. experienced increases in percentages of sales and receipts from 2002 to 2007 with the exception of Black owners in Erie. Sales and receipts decreased in this category from 0.29% to 0.10%.
- ▶ As with the business ownership data, data were not available for Asian sales and receipts for Erie in 2007. In 2002, Asian sales and receipts accounted for 0.34%.

Education

Education Levels and Lifetime Expected Income



Source: U.S. Census Bureau, Current Population Survey¹⁰

- ▶ Why stay in school? The income data above make a compelling case.
- ▶ In the United States, those who drop out of high school earn about \$1 million over their lifetimes. Those with a high school diploma earn about 20% more. A high school diploma is worth about \$200,000 on average.
- ▶ Having "some college" or an associate's degree bumps earnings up from \$1.2 million to \$1.5 or \$1.6 million. But the big bump occurs with a full bachelor's degree.
- ▶ A person with a bachelor's degree is expected to earn about 75% more than a high school graduate: \$2.1 million vs. \$1.2 million. A college degree is worth about \$900,000 on average. That is a pretty good return for four (sometimes more...) years.
- ▶ A master's degree adds another 20% premium (\$400,000) over a bachelor's degree usually for another two years of work.
- ▶ A doctoral degree adds another 20% (\$900,000) above a master's degree, and 62% (\$1.3 million) above a bachelor's degree.
- ▶ Finally, a person with a professional degree (law, medicine, dentistry) earns more than double that of a person with a bachelor's degree, and more than 3.3 times as much as a person with a high school diploma.
- ▶ Of course, these results are not guaranteed, and vary by major, occupation, etc.

¹⁰ Jennifer Cheeseman Day and Eric C. Newburger. "The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings." *Current Population Reports, Special Studies*. P23-120, July 2002. <http://www.census.gov/prod/2002pubs/p23-210.pdf>

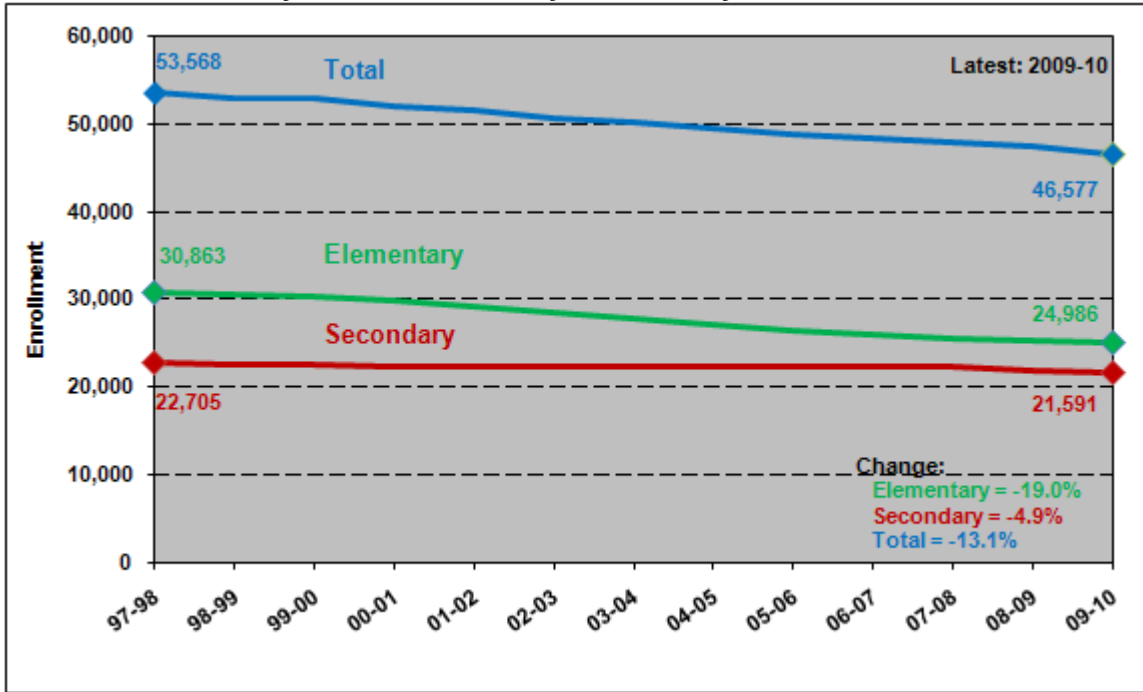
Erie County and U.S. Educational Attainment, 2009

	% of individuals age 25 & over, 2009		Location Quotient: Erie% / US%	
	Erie	US	2009	2000
No schooling completed	0.72	1.28	0.56	0.42
Some schooling, no diploma	10.71	13.46	0.80	0.81
High school graduate	40.78	28.50	1.43	1.46
Some college, no degree	16.68	21.34	0.78	0.79
Associate degree	7.15	7.52	0.95	0.86
Bachelor degree	15.35	17.58	0.87	0.85
Master degree	6.81	7.22	0.94	0.90
Professional school degree	0.80	1.94	0.41	0.81
Doctorate degree	1.00	1.16	0.86	0.74
Population 25 years and over	100.00	100.00		

Source: U.S. Census Bureau, American Community Survey

- ▶ Erie has a smaller percentage of people with less than a high school diploma: 11.4% in Erie vs. 14.7% nationwide.
- ▶ Nearly 41% of the Erie County population over 25 years old are high school graduates, while about 29% of the U.S. population is. A larger share of Erie residents has “just” a high school education.
- ▶ 17.6% of the U.S. population over 25 have a bachelor’s degree, but only 15.4% of Erie County residents do.
- ▶ Erie has less than the national average in all categories of education above the high school level.
- ▶ This fact helps explain the fact that Erie’s income level is lower than the nation’s.
- ▶ Erie’s lower-than-average education levels occur despite the fact that we have four colleges and a medical school.
- ▶ The good news is that most of Erie’s location quotients for the upper levels of education have increased between 2000 and 2009—associate degrees, bachelor degrees, master degrees, and doctorates. The professional school degree LQ actually declined quite a bit during this period, though.

Erie County Total Elementary/Secondary School Enrollment



Source: PA Department of Education

- ▶ Total elementary and secondary school enrollment has declined from 53,568 in 1997-98 to 46,577 in 2009-10. This is a decrease of 13.1% or 6,991 students.
- ▶ Elementary school enrollment has declined by 19.0% from 30,863 to 24,986 between 1997-98 and 2009-10.
- ▶ Secondary school enrollment has declined by only 4.9% between 1997-98 and 2009-10 from 22,705 to 21,591.

Erie County SAT Scores, 2010

School District	School	Students Tested	Mean SAT Scores			
			Verbal	Mathematics	Writing	Total
Corry Area	Corry Area HS	76	460	499	442	1401
Erie City	Central HS	30	427	436	398	1261
Erie City	East SHS	50	408	406	393	1206
Erie City	Northwest PA Collegiate Academy	163	563	555	552	1670
Erie City	Strong Vincent HS	58	406	406	394	1205
Fairview	Fairview HS	116	506	518	487	1511
Fort LeBoeuf	Fort LeBoeuf SHS	96	472	486	468	1426
General McLane	General McLane HS	139	509	523	494	1526
Girard	Girard HS	61	496	531	482	1510
Harbor Creek	Harbor Creek JSHS	75	477	498	475	1450
Iroquois	Iroquois JSHS	51	454	474	425	1352
Millcreek Township	McDowell SHS	365	488	505	478	1472
North East	North East HS	99	495	485	482	1462
Northwestern	Northwestern SHS	62	474	476	455	1406
Union City Area	Union City HS	36	479	486	472	1438
Wattsburg Area	Seneca HS	56	479	478	478	1434

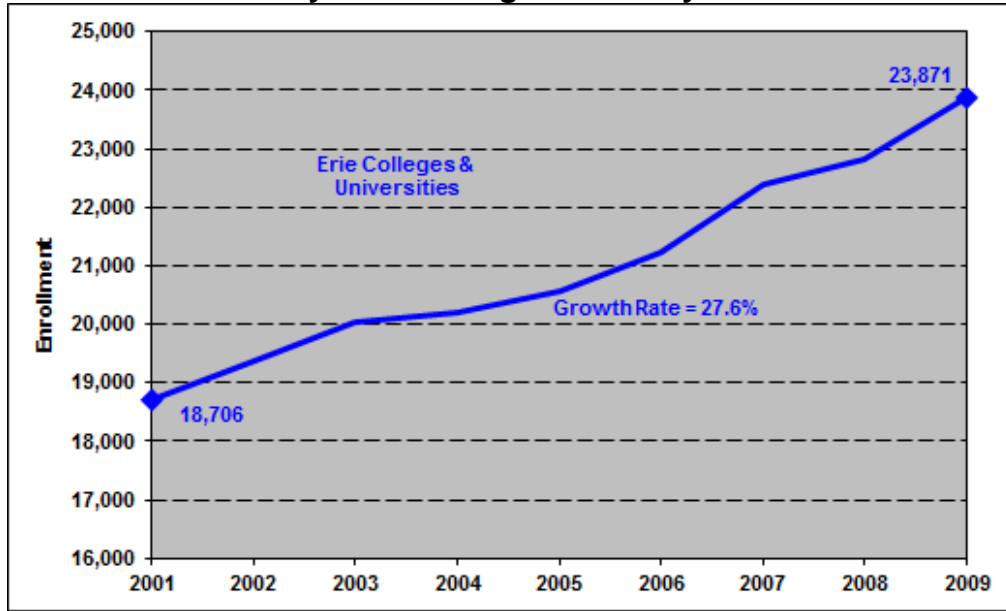
Source: PA Department of Education

Further details on educational performance are available at the PA Department of Education:
<http://www.pde.state.pa.us>, under "Data and Statistics".

Erie County High Schools Ranked by 2010 Total SAT Score

School District	School	Students Tested	Mean SAT Scores			
			Verbal	Mathematics	Writing	Total
Erie City	Northwest PA Collegiate Academy	163	563	555	552	1670
General McLane	General McLane HS	139	509	523	494	1526
Fairview	Fairview HS	116	506	518	487	1511
Girard	Girard HS	61	496	531	482	1510
	UNITED STATES AVERAGE		501	516	492	1509
Millcreek Township	McDowell SHS	365	488	505	478	1472
North East	North East HS	99	495	485	482	1462
Harbor Creek	Harbor Creek JSHS	75	477	498	475	1450
Union City Area	Union City HS	36	479	486	472	1438
Wattsburg Area	Seneca HS	56	479	478	478	1434
Fort LeBoeuf	Fort LeBoeuf SHS	96	472	486	468	1426
Northwestern	Northwestern SHS	62	474	476	455	1406
Corry Area	Corry Area HS	76	460	499	442	1401
Iroquois	Iroquois JSHS	51	454	474	425	1352
Erie City	Central HS	30	427	436	398	1261
Erie City	East SHS	50	408	406	393	1206
Erie City	Strong Vincent HS	58	406	406	394	1205

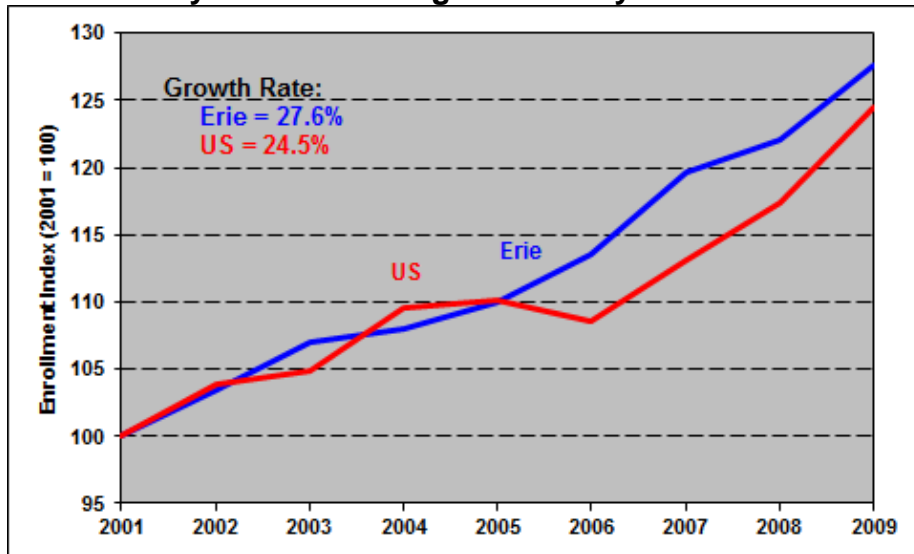
Erie County Total College/University Enrollment



Source: PA Department of Education

- ▶ Total college and university enrollment in Erie has increased by 27.6% from 18,706 to 23,871 from 2001 to 2009.
- ▶ Total college and university enrollment in Erie has increased by 5.6% from 2008 to 2009.
- ▶ These increases occurred at a time when Erie County elementary and high school enrollments were flat or declining.

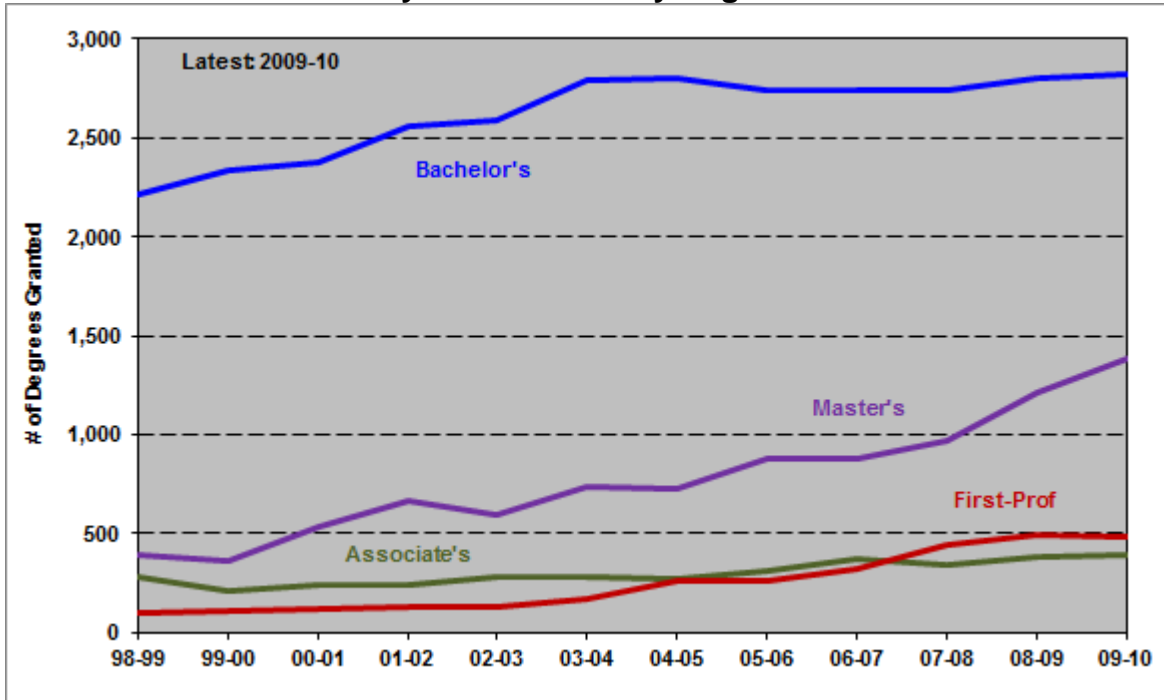
Erie County and U.S. College/University Enrollment Index



Source: PA Department of Education

- ▶ Between 2001 and 2009, total college and university enrollment in Erie grew by 27.6% while total college and university enrollment grew by 24.5% in the U.S.

Erie County Post-Secondary Degrees Granted



Source: PA Department of Education

- ▶ The great majority of degrees granted in Erie between 1998 and 2010 were bachelor's degrees.
- ▶ Bachelor's and master's degrees experienced the greatest increase in degrees granted during this time period and also account for the majority of degrees granted.
- ▶ Associate's degrees granted remained relatively constant while first-professional degrees stayed constant until 2003-04, then experienced a slow increase in the number granted.

Erie County Post-Secondary Degrees Granted, 2009-10

	#	%
Post Sec Less Than One Year	178	3.2
Post Sec Less Than Two Years	56	1.0
Associate's Degree	394	7.0
Post Sec Less Than Four Years	4	0.1
Bachelor's Degree	2,824	50.5
Post-Bachelor's Certificate	184	3.3
Master's Degree	1,382	24.7
Post-Master's Certificate	46	0.8
First-Professional Degree	484	8.7
Doctorate Degree	40	0.7
Total	5,592	100.0

Source: PA Department of Education

- ▶ During the 2009-10 school year, bachelor's degrees accounted for 50.5% of the degrees granted in Erie.
- ▶ Almost 25% of the degrees granted were master's degrees.
- ▶ Associate's degrees accounted for 7% and first-professional degrees accounted for about 9% of the degrees granted.

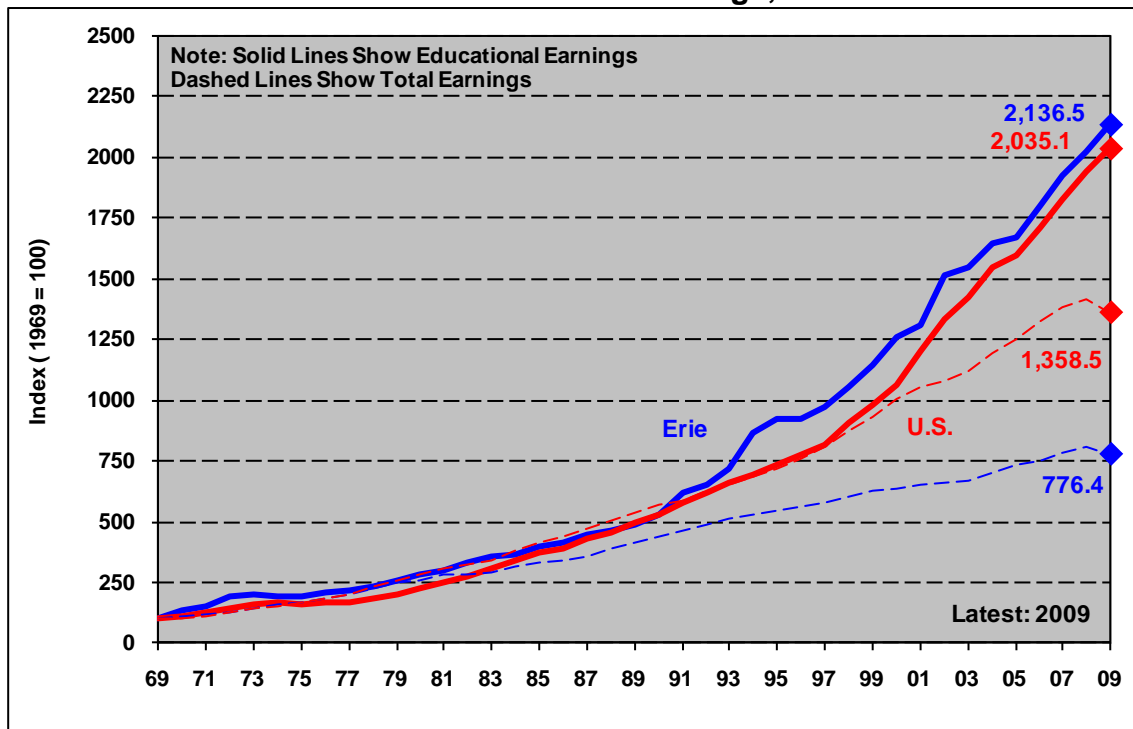
Erie County vs. U.S. College/University Enrollment, 2009

	Population	College Enrollment	%
Erie (2009)	280,291	23,871	8.5
U.S. (2009)	289,420,000	19,764,000	6.8

Source: U.S. Census Bureau & PA Department of Education

- ▶ 8.5% of the population in Erie in 2009 was enrolled in college.
- ▶ Only 6.8% of the U.S. population was enrolled in college in 2009.
- ▶ Does this make Erie a college town?

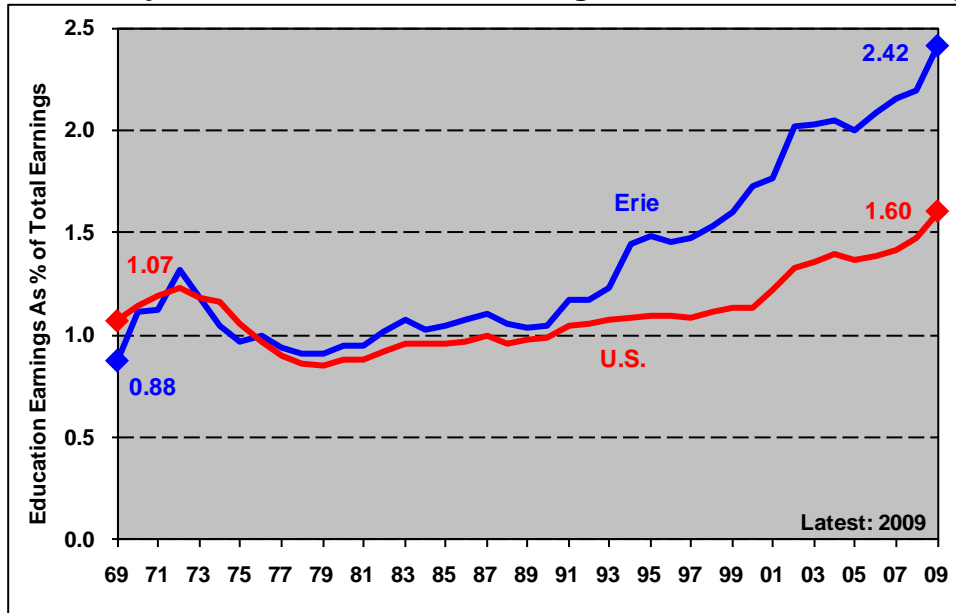
Index of Educational Services Earnings, Erie and U.S.



Source: Bureau of Economic Analysis (BEA), REIS

- ▶ The Educational Services industry has grown significantly in both Erie County and the U.S..
- ▶ Growth in Erie has been faster than nationally, with Erie's growth over the period being 2,037% compared to the U.S. growth rate of 1,935%.
- ▶ The dashed lines in the graph above show total earnings of Erie residents who work in the education sector. Educational earnings grew more rapidly in both Erie and the U.S. than overall earnings, but this was especially true in Erie.
- ▶ Conclusion: the educational services industry is a relatively fast growth industry, and Erie is growing at a faster rate in this industry than the nation.

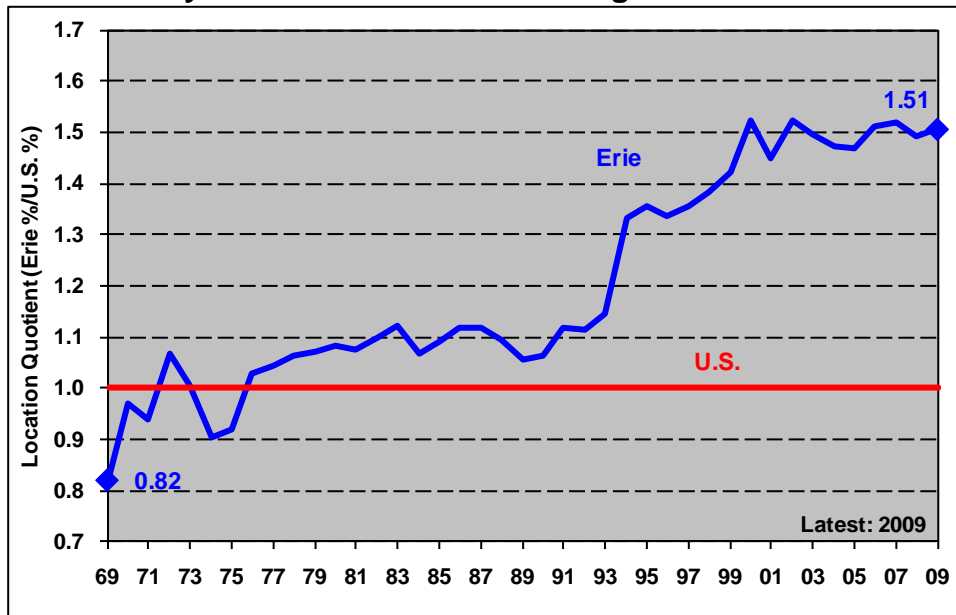
Erie County and U.S. Education Earnings as a % of Total Earnings



Source: Bureau of Economic Analysis (BEA), REIS

- ▶ From 1969 through 1976, education earnings in Erie and the U.S. made up about the same percentage of total earnings.
- ▶ From 1976 through 1991, education earnings in Erie made up a slightly larger percentage of total earnings than those of the U.S.. Both hovered near 1%.
- ▶ From 1991 through 2007, education earnings in Erie composed a much larger percentage of total earnings than those of the U.S..

Erie County and U.S. Education Earnings Location Quotients

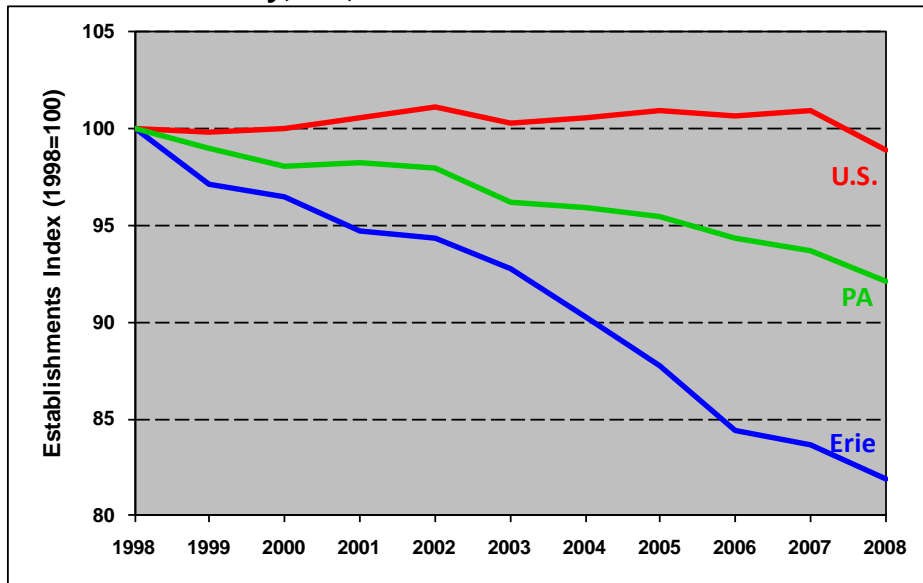


Source: Bureau of Economic Analysis (BEA), REIS

- ▶ The location quotient (LQ) compares Erie's percent of total earnings in education with the national percent in education. A value of 1.0 would mean that Erie has the same concentration in education as the nation; a number greater than 1.0 means that Erie specializes in education more than the nation.
- ▶ Starting in the late 1970s, Erie's LQ for education rose past the 1.0 mark. It has risen more rapidly since the beginning of the 1990s.
- ▶ The current LQ for Erie is about 1.5, or 50% higher than the U.S., reflecting the fact that Erie receives 2.4% of its total earnings from education while the U.S. receives only 1.6% from that sector.
- ▶ Conclusion: Erie's specialization in the education sector has been increasing.
- ▶ In an increasingly competitive world where education plays an increasingly important role, this is clearly good news. Of course, a key issue is whether Erie can hold onto the students that are educated here. Brain drain is discussed later in the *Guide*.

The Retail Industry

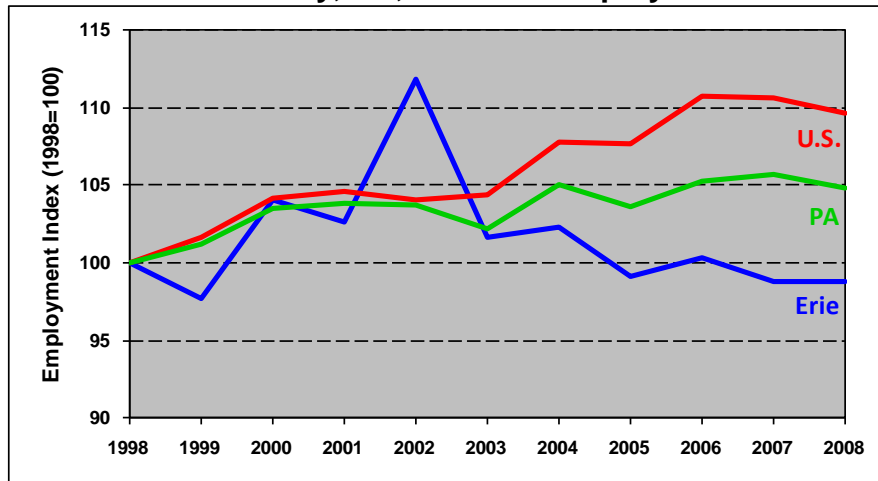
Erie County, PA, and U.S. Retail Establishments



Source: U.S. Census Bureau, County Business Patterns

- ▶ Erie County and PA have lost retail establishments since 1998. An establishment is defined as a single physical location at which business is conducted.
- ▶ The total number of retail establishments in the U.S. was generally higher than the 1998 level through most of the period, but from 2007 to 2008 it declined.

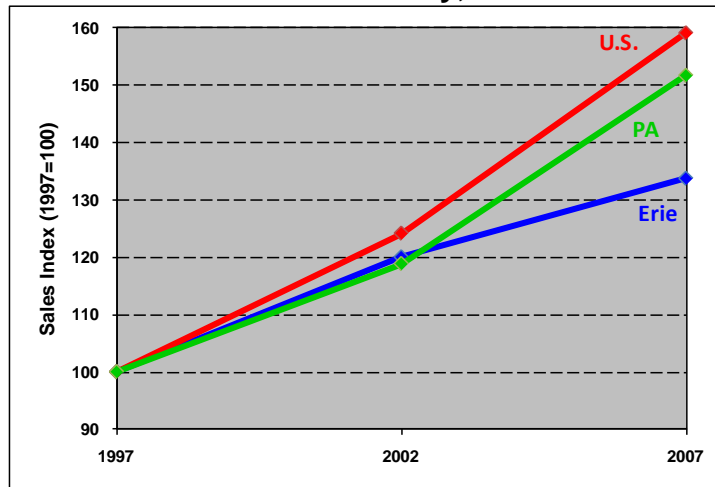
Erie County, PA, and U.S. Employment



Source: U.S. Census Bureau, County Business Patterns

- ▶ Erie County retail employment decreased in total over the period from 1998 to 2008. Six out of the ten years, however, retail employment was above the amount from 1998, including a large spike in 2002. Much of the 2002 spike was associated with pharmacies and drug stores.
- ▶ Both the PA and U.S. retail employment follow the same rough pattern during this period including a decrease in employment going from 2007 into 2008.
- ▶ But the establishment and employment data do not tell the whole story for retail. We also need to look at the sales generated in the industry. Unfortunately we do not have annual data on this from the same source, and have to turn to the Economic Census which is only conducted every five years.

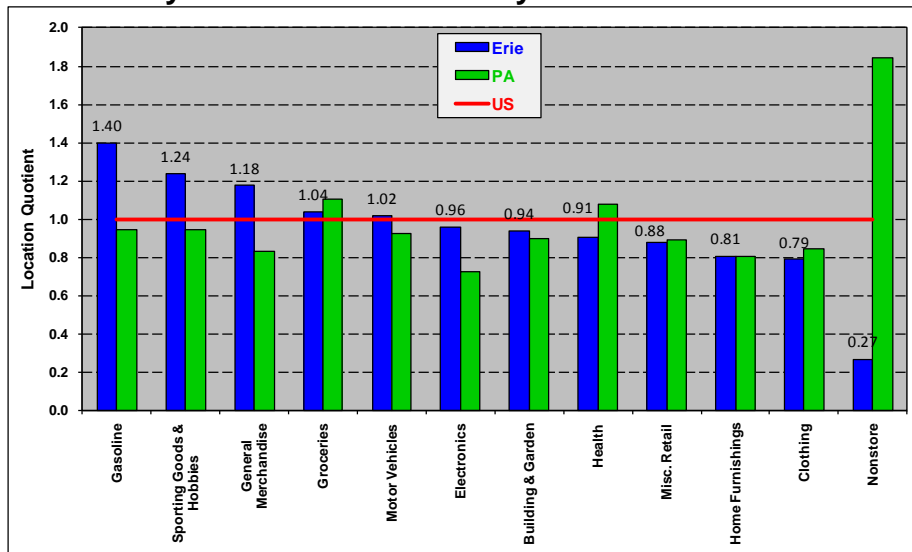
Retail Sales: Erie County, PA and U.S.



Source: U.S. Census Bureau, Economic Census 1997, 2002, 2007

- ▶ While the number of retail establishments has fallen and employment has been variable, retail sales have continued to increase. This indicates that firms are selling more per establishment and employee through time. Erie’s rate of sales growth trailed the state’s and nation’s between 2002 and 2007.

Erie County and PA Retail Industry Sales Location Quotients



Source: U.S. Census Bureau, Economic Census 2007

- ▶ Sales location quotients for the twelve three-digit NAICS Code components of the retail sector show in which categories of retail trade Erie County and PA have more than their share of business.
- ▶ Erie County has a higher share of sales than the U.S. in gasoline stations; sporting goods, hobby, book, and music stores; general merchandise stores; food and beverage stores; and also motor vehicle and parts dealers. People buy more of these things from Erie merchants than we might expect.
- ▶ Erie County has a lower share of sales than the U.S. in the remaining categories including only 27 percent of its share of nonstore retail sales as compared to the United States in total. Nonstore retailers are direct selling establishments and include business such as: fuel dealers, vending machine operators, mail order houses, and electronic shopping.
- ▶ Although Erie County has a small share of nonstore retail sales, PA has a much larger share with a location quotient of 1.85.

Agriculture

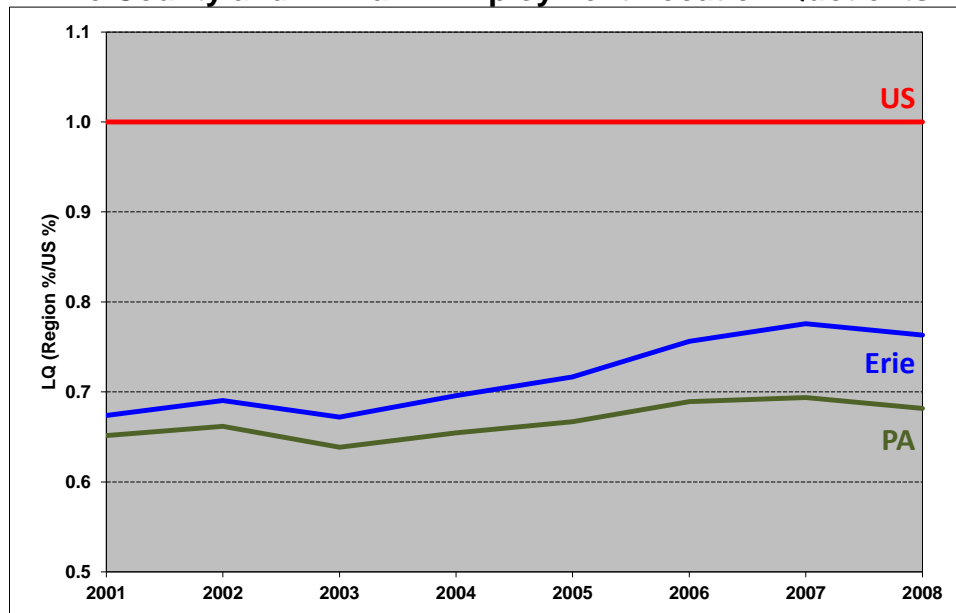
Erie County, PA, and U.S. Agriculture Overview

2007 Agricultural Census Data	Erie County	PA	U.S.
Number of Operations (Farms)	1,609	63,163	2,204,792
Total Farmland (Acres)	173,125	7,809,244	922,095,840
Total Land Area (Acres)	513,280	28,682,240	2,263,950,080
Farmland as % of Total Land	33.73	27.23	40.73
Total Commodity Sales (millions \$)	71.28	5,808.80	297,220.49

Source: National Agricultural Statistics Service (NASS) of the United States Department of Agriculture

- ▶ Over a third of Erie County land was devoted to farming in 2007.
- ▶ In 2007, Erie County had total agricultural commodity sales of over \$71 million.

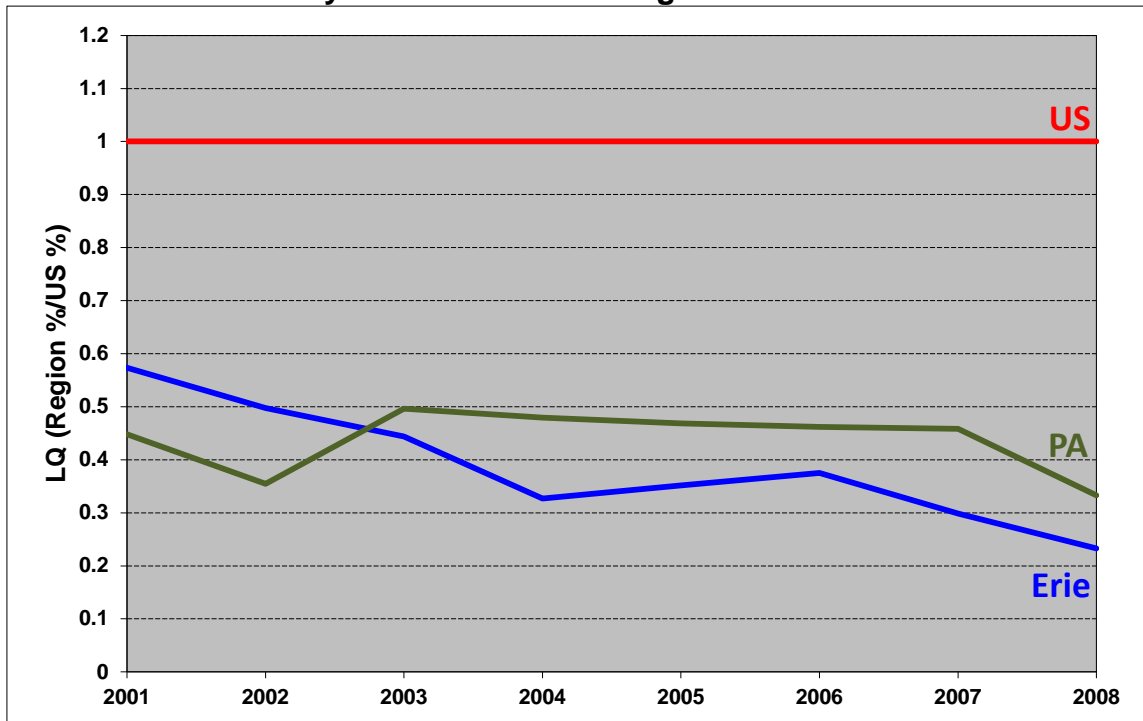
Erie County and PA Farm Employment Location Quotients



Source: Bureau of Economic Analysis (BEA)

- ▶ Location quotients for farm employment are calculated by dividing the region's percent of employment in farming by the U.S. percent. Values greater than one indicate a specialization in this industry compared to the nation.
- ▶ Both Erie County & PA have less than the national average share of farm employment as indicated by their location quotients being below the U.S. location quotient of 1. This is not surprising for a metro area like Erie.
- ▶ Since 2001 Erie County and PA have been following the same trend, both with LQs increasing slightly over the period. But the gap between Erie County and PA has increased a bit, indicating that Erie County has increased its share of farm employment relative to PA.
- ▶ For Erie County, the total farm employment was 1,846 in 2008. This is 150 less than the total farm employment of 1,996 in 2001, about a 7.5% drop. The fall in Erie farming employment was less, proportionately, than in the U.S. as a whole; that is how the LQ can rise even though actual employment was falling.

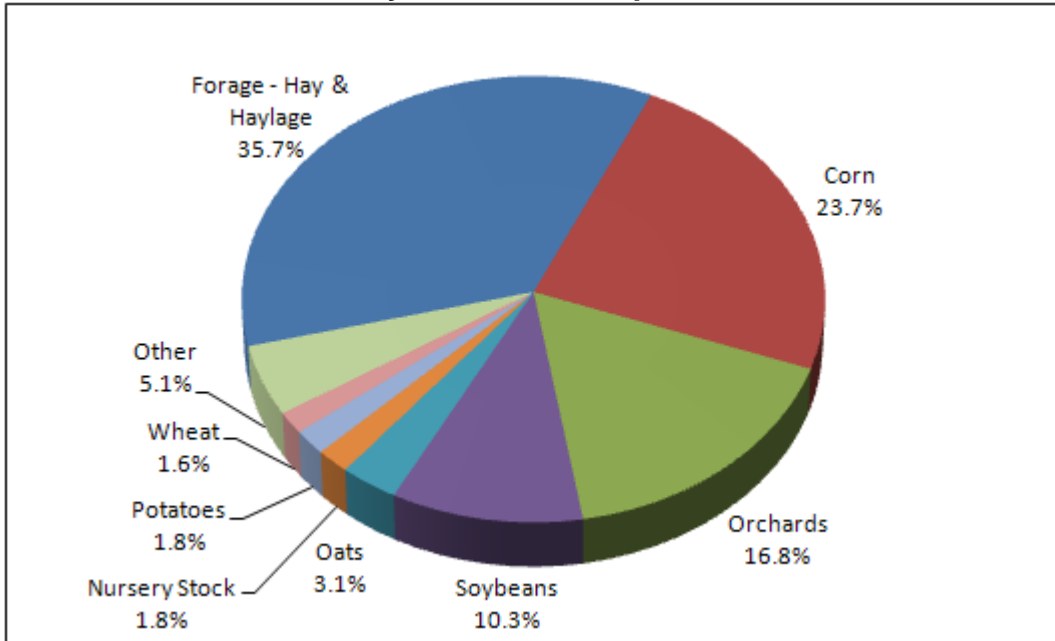
Erie County and PA Farm Earnings Location Quotients



Source: Bureau of Economic Analysis (BEA)

- ▶ In contrast to the previous graph, this one shows LQs for earnings rather than employment.
- ▶ LQs for farm earnings are less than one for both Erie County and PA, and are farther below one than the employment LQs.
- ▶ Total farm earnings in 2008 for Erie County was \$13.76 million, significantly less than the \$24.44 million of earnings in 2001. This is a decrease of \$10.68 million or 43.7 percent for Erie County. During that time PA experienced a total increase of \$90.57 million or 9.1 percent. PA had earnings of \$997.09 million in 2001 and \$1,087.66 million in 2008.

Erie County Harvested Crop Acres, 2007

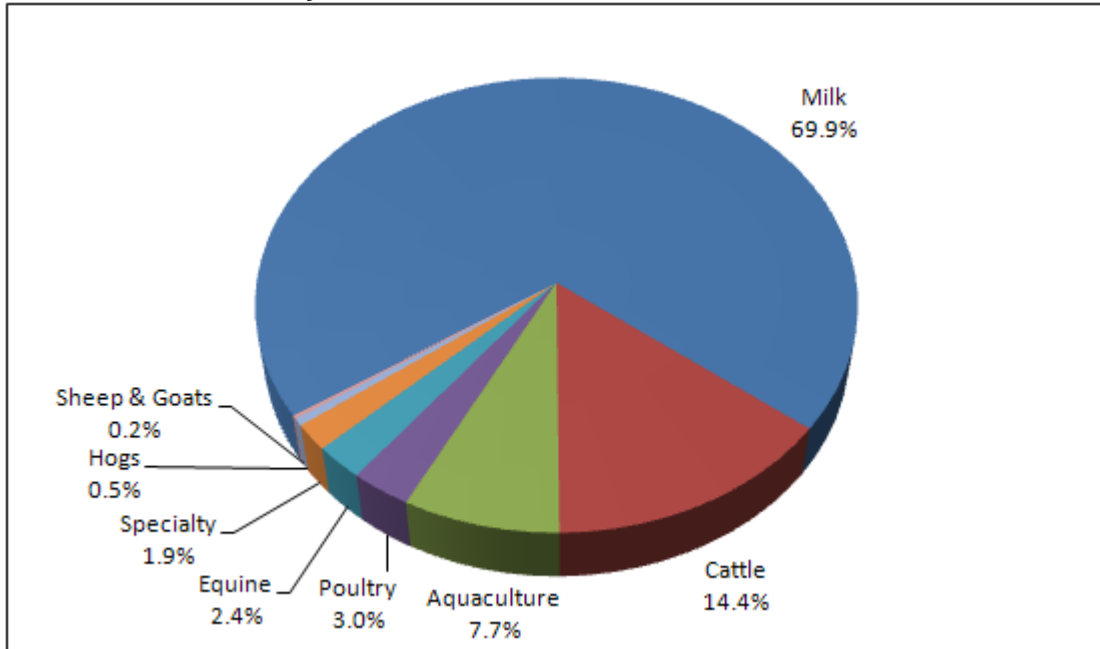


	Acres	% Of Harvested		Acres	% Of Harvested
Forage - Hay & Haylage	27,815	35.70	Nursery Stock	1,401	1.80
Corn	18,489	23.73	Potatoes	1,408	1.81
Orchards	13,103	16.82	Wheat	1,243	1.60
Soybeans	8,049	10.33	Other	3,965	5.09
Oats	2,436	3.13	Total	77,909	100.00

Source: National Agricultural Statistics Service (NASS) of the U.S. Department of Agriculture (USDA)

- ▶ Forage including hay and haylage is the largest segment of Erie cropland harvested in 2007 at 35.7 percent, or 27,815 acres out of the total of 77,909.
- ▶ Corn, orchards, and soybeans are the next largest crops and together compose 50.9 percent of Erie County’s cropland.
- ▶ The remaining categories of oats, nursery stock, potatoes, wheat, and the other categories compose 13.4 percent of harvested land use.

Erie County Animals and Animal Products Sales, 2007



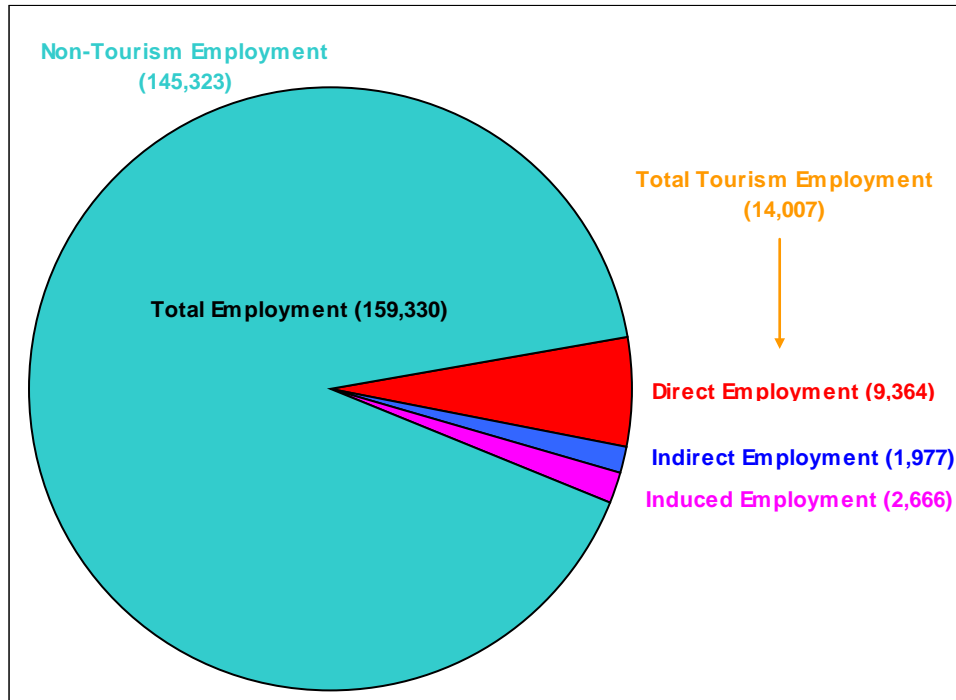
Category	Sales	% of Total
Milk	\$15,429,000	69.9
Cattle	3,187,000	14.4
Aquaculture	1,699,000	7.7
Poultry	656,000	3.0
Equine	537,000	2.4
Specialty	411,000	1.9
Hogs	115,000	0.5
Sheep & Goats	47,000	0.2
Total Animal	22,081,000	100.00

Source: NASS of the USDA

- ▶ Milk made up a large majority of all animal and animal product sales in Erie County in 2007 with \$15.4 million or 69.9 percent of total sales.
- ▶ Cattle and aquaculture are the next largest categories with \$3.2 and \$1.7 million in sales.
- ▶ The remaining categories of poultry, equine, specialty, hogs, and sheep and goats comprise only 8 percent of total sales, or \$1.8 million in 2007 for Erie County.

The Tourism Industry

Erie County Tourism Employment, 2002



Source: The Economic Impact of Travel & Tourism in Pennsylvania – Travel Year 2004, Global Insight

- ▶ The tourism industry plays a significant role in many aspects of Erie County's economy. Total tourism employment accounted for approximately 9.6% of all employment in Erie County in 2002.
- ▶ Along with the 9,364 employment directly related to the tourism industry (6.4% of Erie total), spillover employment created by the industry accounts for another 4,643 jobs, approximately 3.2% of local employment.¹¹
- ▶ Global Insight estimates that if there were no tourism industry in Erie:
 - total income would be about 8% lower.
 - total employment would be about 8.5 to 9.0% lower.
 - total wages would be about 10% lower.

Source: Global Insight, *The Economic Impact of Travel and Tourism in Pennsylvania, Travel Year 2004*. In partnership with D.K. Shiflett & Associates, Ltd. Prepared for the Pennsylvania Tourism Office of the Department of Community and Economic Development. This report is available on the ERIE website: www.ERIEdata.org

¹¹ According to Global Insight: "The direct impacts represent the value added of those sectors that interact directly with the visitor. The indirect impact represents the benefits to suppliers to those direct sectors.....The induced impact adds the impact of tourism-generated wages as they are spent in the Pennsylvania economy." (p. 3)

The Tax Impact of Tourism on Erie Residents

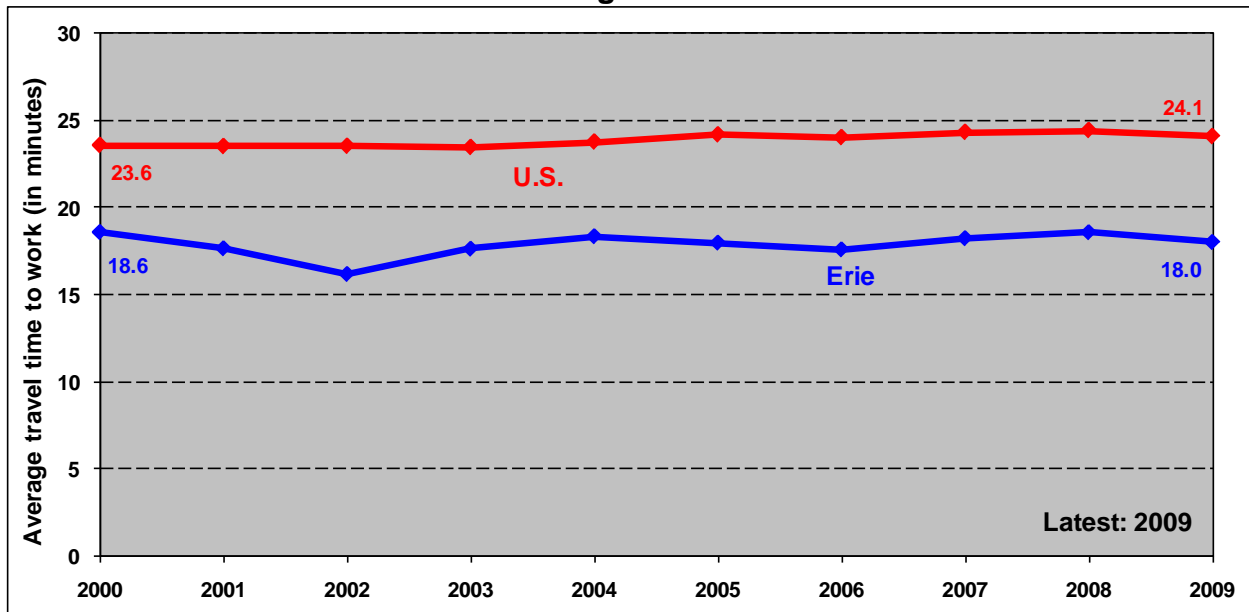
(thousands of \$US, except per capita data)	
Population of Erie County in 2002 was 282,379	
	2002-2003
State Taxes collected in Erie County	
Sales and Use Tax	\$108,357
Motor Vehicle Sales Tax	42,780
Inheritance and Estate Tax Collections	44,172
Realty Transfer Tax	8,042
Personal Income Tax	115,467
Total State Taxes	318,818
Local Taxes collected in Erie County	
Property Taxes Collected (2002)	200,818
Other Taxes Collected (2002)	49,573
Total Local Taxes	250,391
Total Tax Collection in Erie County (2002)	569,209
Per Capita State/Local Taxes	2,016
Tourism State/Local Taxes (2002)	61,054
Without Tourism	
Total Tax Collection in Erie County (2002)	508,155
Per Capita State/Local Taxes without Tourism	1,800
Per Capita Difference	\$216
Tourism (Percent of Total State/Local Taxes)	10.73

Source: estimates made by ERIE
based on tourism data from Global Insight.

- ▶ Analysis of the 2002-2003 tax structure in Erie County shows the impact of the tourism industry on Erie County's tax revenues.
- ▶ Global Insight estimates that tourism generated about \$61 million in state and local taxes in Erie County in 2002, or 10.7% of the taxes paid.
- ▶ This implies that without tourism, each Erie County resident would have had to pay another \$216 to generate the same amount of revenue for state and local government.

Commuting

Erie and U.S. Average Travel Time to Work

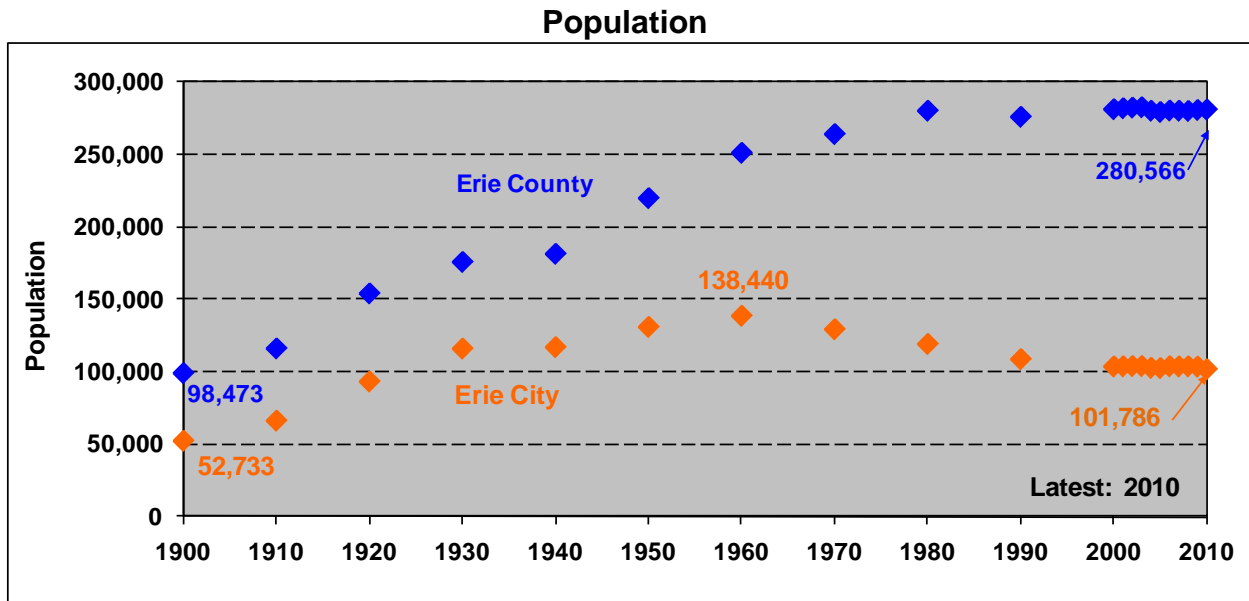


Source: U.S. Census Bureau, American Community Survey

- ▶ Erie workers consistently spent about 25% less time commuting than average U.S. workers over the 2000-2009 period.
- ▶ In 2009, Erie workers spent an average of about 18.0 minutes getting to work, compared with 24.1 minutes nationally. That translates to a difference of 6.1 minutes saved each way each day, or 60.5 minutes per week. Working 50 weeks a year on average, that amounts to a savings of 50.4 hours of travel time per year in Erie—more than a week's vacation! And this does not factor in the money costs of commuting. This is one of those times when Erie can be happy to be below the national average.
- ▶ Over 122,700 Erie residents commuted to work in 2009, spending a total of 37,752 hours on the trip to and from work. That is the equivalent of about 944 work-weeks, or almost 19 years of time spent on commuting that could have been spent on work or leisure.
- ▶ In 2009, 2,990 Erie residents, or 2.4% of the labor force, worked at home. This is below the 4.3% national average. This is below Erie's 3,428 and 2.7% in 2007.
- ▶ In 2009, commute time in Erie fell to 18.0 minutes from 18.6 in 2008.

Erie City and Erie County

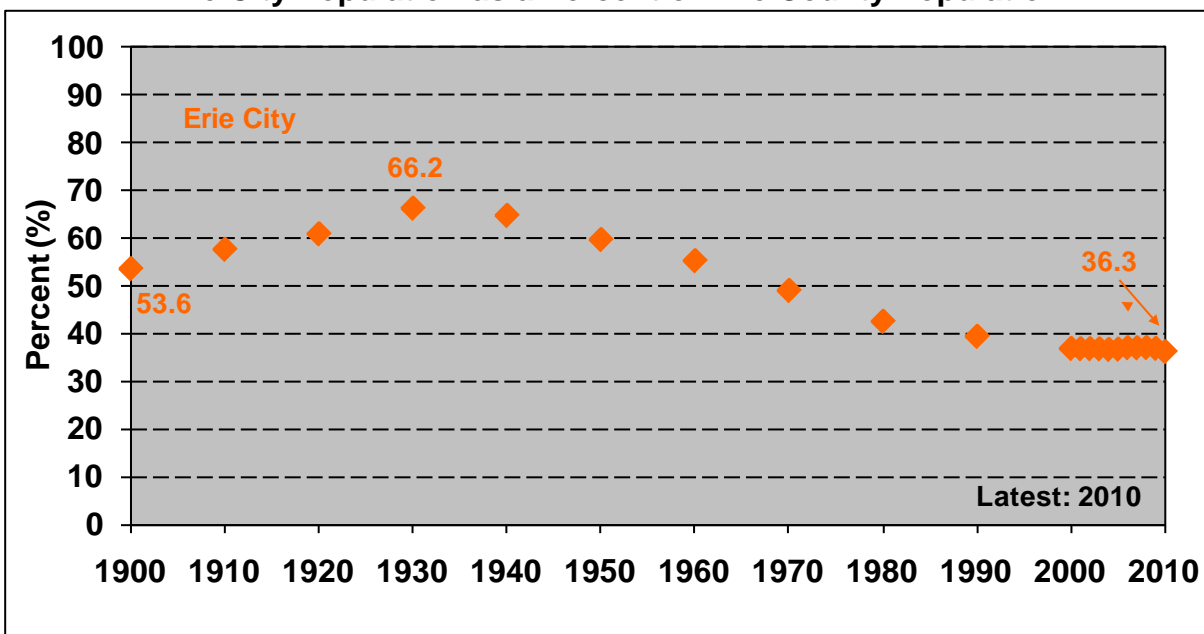
How does the City of Erie compare to Erie County? This section will provide data on a number of measures.



Source: U.S. Census Bureau, Population Estimates Program

- ▶ From 1900 to 1930, Erie City population grew at a faster rate than Erie County population. Since then the County has typically outpaced the city.
- ▶ Erie City population peaked in 1960 at 138,440, and then started to decline.
- ▶ Erie County population continued to grow until 1980, and has been relatively flat since then.
- ▶ From 1900 to 2010, City population increased by 93%, and County population grew by 185%.
- ▶ In 2010, the City of Erie had a population of 101,786 on 22 square miles, for a population density of 4,627 people per square mile. Compare this with a 2010 density of 350 for Erie County, and a U.S. average density of about 87 per square mile. The City is over 13 times more densely settled than the County, on average, and about 53 times as densely settled as the U.S. overall.

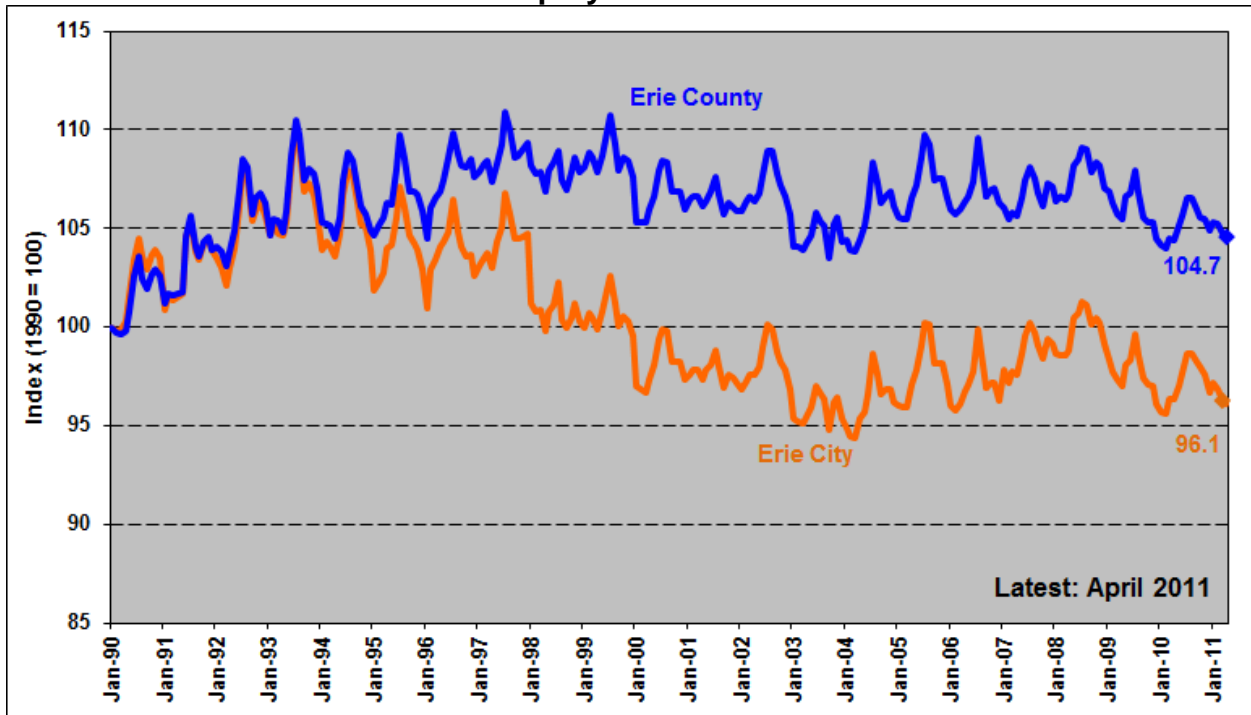
Erie City Population as a Percent of Erie County Population



Source: Calculated from data from U.S. Census Bureau, Population Estimates Program

- ▶ In 1900, Erie City population accounted for 53.6% of Erie County population and it continued to make up an increasing percentage of County population until 1930 when it peaked at nearly two-thirds of County population.
- ▶ After 1930, Erie City population made up less and less of Erie County population despite the fact that City population rose until 1960. The suburban areas outside the City were growing at a faster rate.
- ▶ By 2010 the City's population only made up 36.3% of the County's population, just over one third. Of course, this kind of suburbanization trend is not unique to Erie, and should be expected to happen as population growth filled up the limited land of the city and spilled over into the adjacent suburbs.

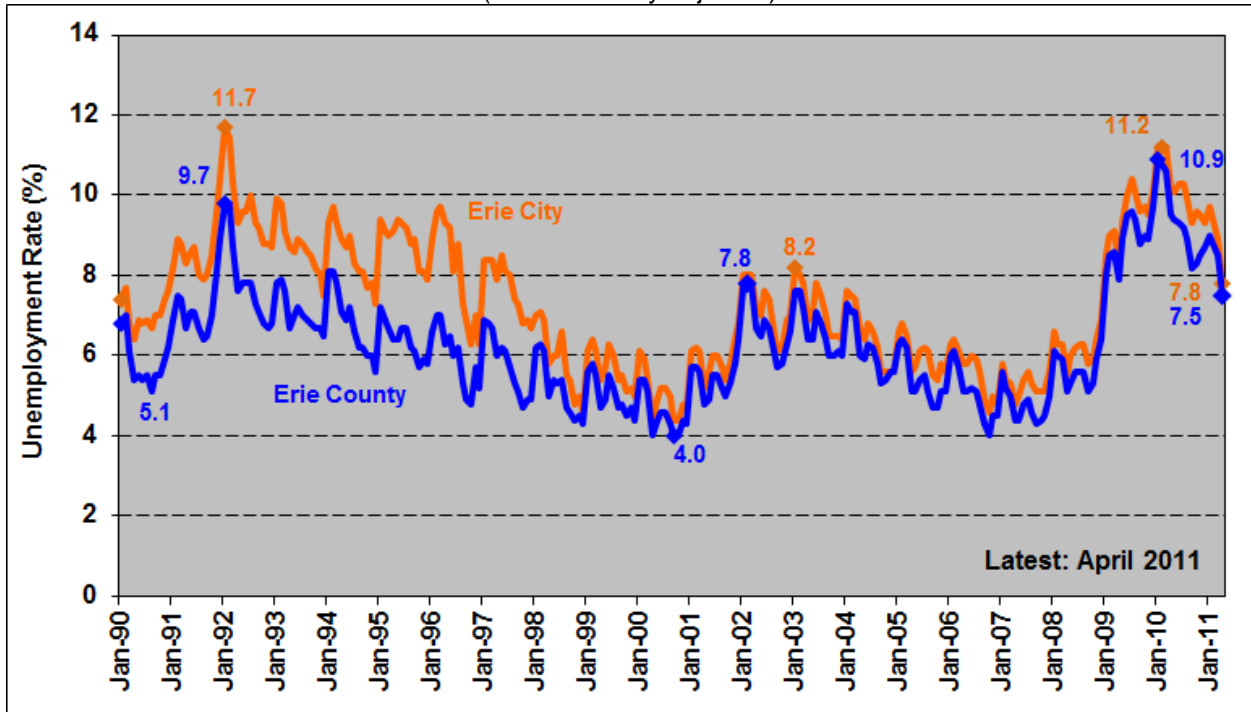
Employment Index



Source: Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS)

- ▶ As might be expected, both City and County employment patterns demonstrate considerable seasonality, which appear in the graphs in the ups and downs each year. (This refers to total employment in the City and County, not employment of City and County governments.)
- ▶ Since 1990, County employment has grown by about 5%, but City employment has fallen by almost 4%.
- ▶ Employment in the City peaked in July 1993 at 49,877, just shy of 50,000. Most recently it has been in the 43,000 - 44,000 range.
- ▶ County employment peaked right before the 2000 recession in July 1999 at 137,977. Over the last year, County employment has averaged about 127,000.
- ▶ Throughout this period, the City accounted for a little over a third (34 to 38%) of all employment in the County, and about 43% (34 – 54%) of County unemployment.
- ▶ These data are from the Household Survey rather than the Establishment Survey, so they represent a count of Erie residents who are working, not a count of jobs. (A person with two jobs only counts once in this database. Someone commuting to Erie to work here is not included in this database, but an Erieite who commutes out of the area to work *is* counted.) This is the program from which the unemployment rate is calculated.

Unemployment Rates (not seasonally adjusted)

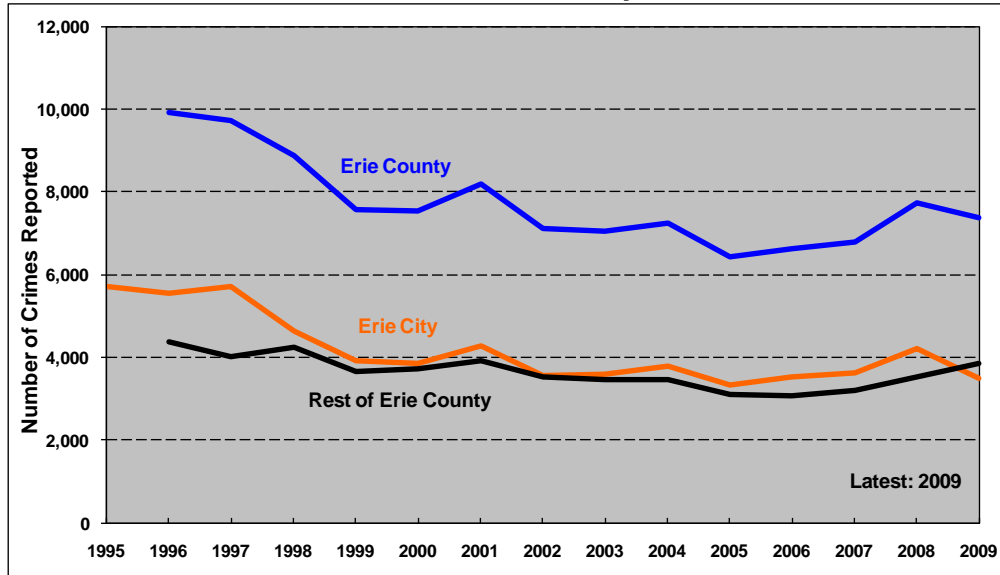


Source: Bureau of Labor Statistics (BLS), Local Area Unemployment Statistics (LAUS)

- ▶ The unemployment rate clearly follows the business cycle, with major increases during the recessions of 1990-1992, 2001-2002, and again in the current recession.
- ▶ Outside recession periods, the unemployment rate in both the City and the County tends to slowly decline.
- ▶ The City's unemployment rate averaged 1.0 percentage points higher than the County's rate over the period since 1990. However, the rates have been much closer since 1999, with the City averaging only 0.5 percentage points higher than the County. Both are higher than the national rate.
- ▶ The April 2011 rates were 7.5% for the County and 7.8% for the City.

Crime

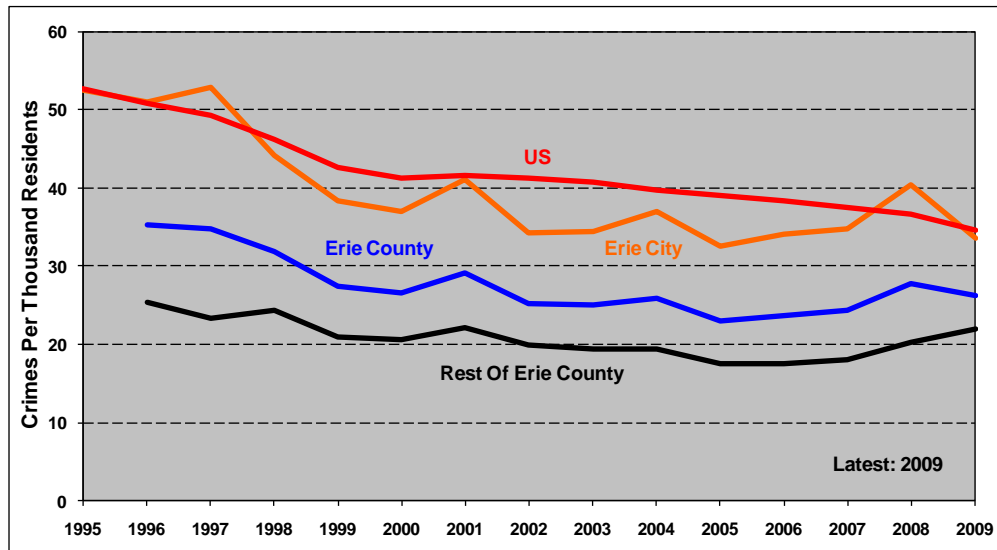
Number of Crimes Reported



Source: Federal Bureau of Investigation (FBI)

- ▶ Between 1995 and 2005, crime was on the decline in both Erie City and Erie County.
- ▶ Crime increased in both Erie City and Erie County between 2005 and 2008.
- ▶ The City of Erie accounted for about half the number of crimes reported in the county throughout the time period, although it only accounted for about 1/3 of the county's population.

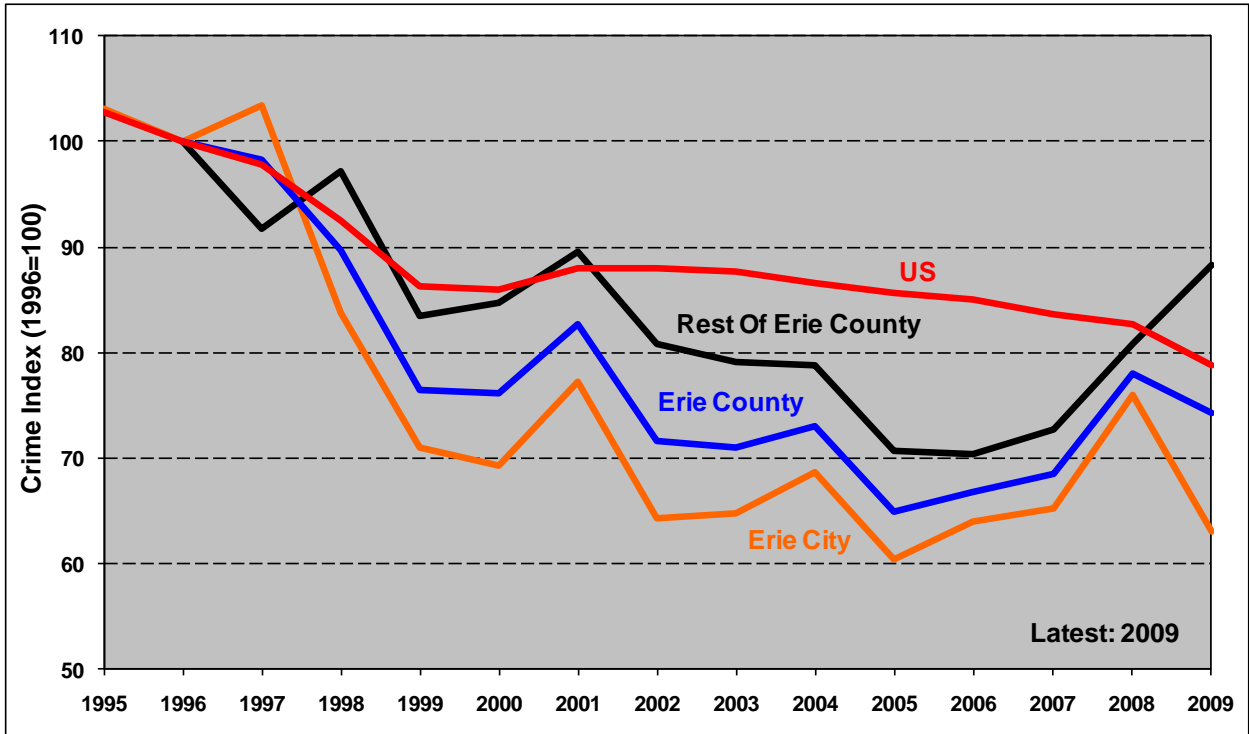
Crimes Per Thousand Residents



Source: Federal Bureau of Investigation (FBI)

- ▶ Crime rates per thousand people fell throughout the period both nationally and locally.
- ▶ From 1995 through 1997 and 2007 through 2009, there were slightly more crimes per thousand residents in the City of Erie than the national average.
- ▶ Erie County was well below the national average throughout this time period.

Crime Index



Source: Calculated from FBI data

- ▶ By putting the crime data into index form with 1996 as the base, it is possible to compare changes in crime rates over time.
- ▶ These data show that between 1995 and 2005, both the City of Erie and Erie County experienced a greater decrease in crime than the U.S., with the city experiencing a larger decrease than the county.
- ▶ However in 2006, both the City of Erie and Erie County saw an increase in crime which continued into 2008. The U.S. rate continued to decline during this period.
- ▶ In 2009 the crime rate fell for the City, County and U.S., but rose in the County outside the City.

ERIE Special Studies

Brain Drain: Are We Keeping Our College Graduates?

A study by student researcher Tim Gigliotti examined the locations of 1,961 graduates of Penn State Behrend from 1994-2002. He compared their “current” (in 2003) residence locations with those at the time they applied to college, and found the following results. Each cell shows the number of students, and the percentage of the total 1,961.

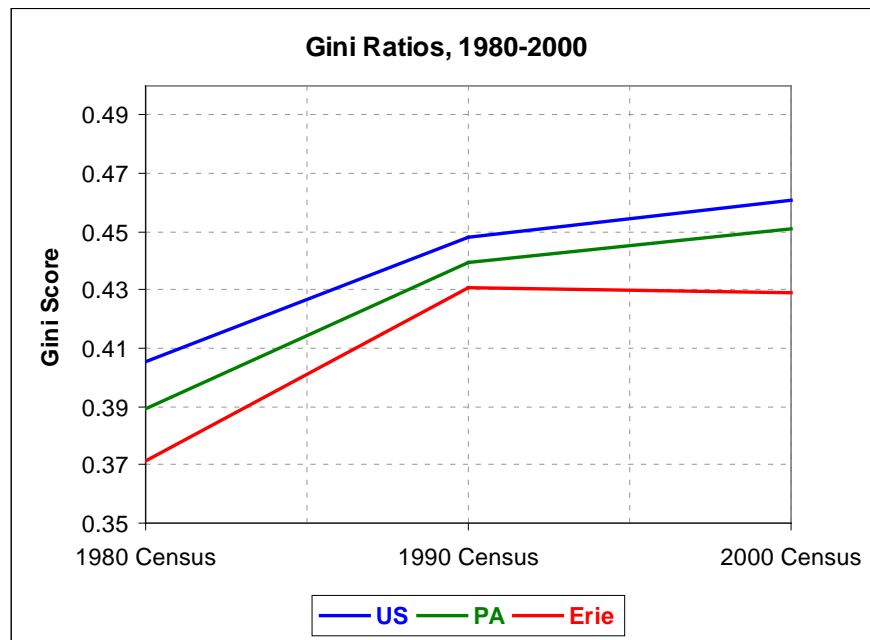
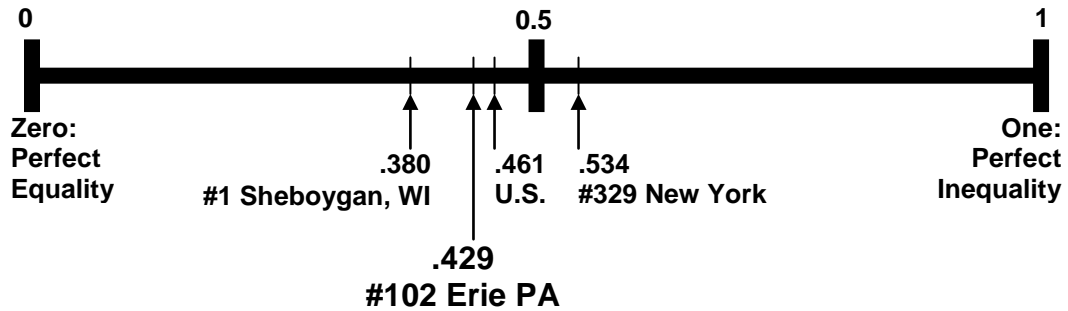
		Residence Before College		Total
		Erie County	Outside Erie County	
Residence After College	Erie County	“Stayers” 702 36%	Brain Gain 58 3%	760 39%
	Outside Erie County	Brain Drain 260 13%	“Visitors” 941 48%	1,201 61%
	Total	962 49%	999 51%	1,961 100%

- ▶ Conclusion: 260 of the 962 Erie County students who graduated from Penn State Behrend during this period no longer resided in the county at the time of the study. That is 27% brain drain from this group.
- ▶ Of the 962 students who were from Erie County at the time they enrolled in Behrend, 702 or 73% of them still resided in Erie County in 2003.
- ▶ 58 of the 999 students who came to college here from outside the county chose to stay in the county after graduation. This represents brain gain for the county.

Source: Gigliotti, Timothy D. (Student researcher.) *Penn State Erie’s Contribution to Brain Drain and Brain Gain in Erie County, PA and the Penn State Erie Service Area*. ERIE Research Report. Erie, PA: Penn State Erie. March 2003. 29 pages. Available online at the ERIData website: http://www.pennstatebehrend.psu.edu/eriedata/ERIE_Research_Reports_Chronological.cfm

Income Inequality, 2000

A study by student researcher Jason Pflueger measured income inequality for all U.S. metro areas. The study made use of the Gini coefficient, a measure of income inequality that varies from zero (perfect equality—everyone has exactly the same income) to one (perfect inequality—one person has all income and the rest have none) of income. The diagram below shows the results for the places with the most equal distribution of income (Sheboygan WI), the most unequal (New York), the U.S. overall, and Erie County.

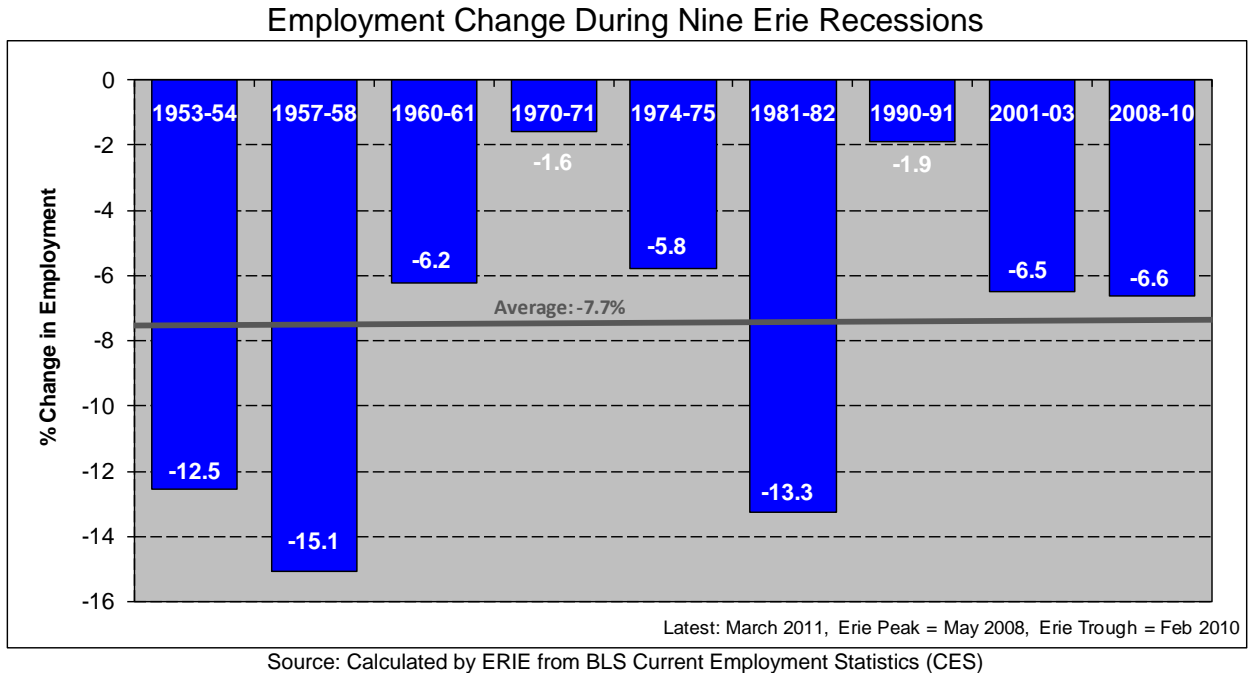


- ▶ Income was distributed more equally in Erie County than average for the nation.
- ▶ Income inequality increased over the period from 1980 to 2000 in PA and the U.S.. It also increased in Erie from 1980 to 1990, but remained nearly constant from 1990 to 2000, contrary to the national trend.
- ▶ At a time when there is a national discussion about redistribution, it is useful to know about the level of income inequality and its trend over time, both nationally and locally. Erie has less inequality of income than the state or the nation.

Source: Jason C. Pflueger, *Income Inequality In Erie: How Much Is There And Why?* ERIE Research Report. Erie, PA: Penn State Erie. October 2005, 89 pages. Available online at www.ERIEdata.org.

Erie Recession Facts

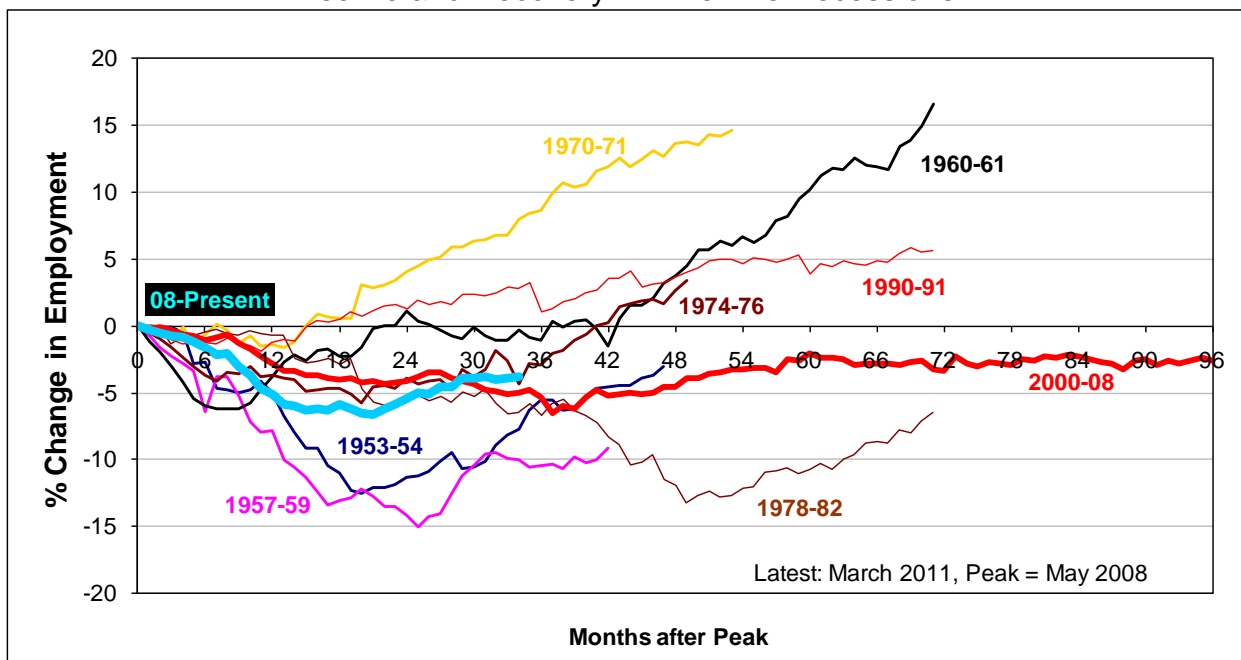
For current information about the Erie and U.S. business cycles, please see the most recent *ERIE Leading Index* (ELI) information at www.ERIEdata.org



Based on nine recessions since 1950 (including the most recent one):

- ▶ Erie recessions averaged about 8 months longer than the nation's (22.7 vs. 15.0 months.)
- ▶ Erie expansions averaged about 8 months shorter (60.1 months vs. 67.9 months.)
- ▶ The Erie economy tends to turn down *before* the U.S., about 4 months before, although that did NOT happen in the current recession.
- ▶ The Erie economy tends to turn up *after* the U.S., about 3.5 months after.
- ▶ For the nine recessions through 2008, Erie experienced a 7.7% average decrease in employment, but there was significant variation around that average (from 1.6% to 15.1%.)
- ▶ During those same recessions, the U.S. averaged "only" a 3.0% decrease in employment.

Decline and Recovery in Nine Erie Recessions



Source: U.S. Bureau of Labor Statistics (BLS), Current Employment Statistics (CES), ERIE calculations

- ▶ This graph shows Erie employment patterns during nine recessions, starting each one from the peak of the previous business cycle.
- ▶ For example, the black line shows that during the 1960-61 recession, Erie employment fell by about 6% and reached its trough point at about eight months after the previous peak, and then started to recover. It reached the previous peak level of employment (crossed the X-axis) at about 22 months after the recession started, but showed no real employment growth until about 43 months after the previous peak.
- ▶ The purple line for 1957-59 shows that it was the most severe recession in that it goes the lowest on this graph (-15%), nearly matched by the 1978-82 recession and the 1953-54 recession. By this standard, the employment decreases of the 2000-03 recession were rather modest, and the 1970-71 recession experienced only a very slight employment decrease. The same is true for the 1990-91 recession.
- ▶ The 1978-82 recession is notable for its length. It took over 48 months—four years—to reach its bottom and begin to turn up. It was also quite severe.
- ▶ The most recent recession involved loss of 6.6% of Erie's jobs. That makes it less severe than the average Erie recession which typically has involved loss of about 7.7% of all jobs.
- ▶ The current recession is notable in that it was especially mild in the early months.

APPENDIX A

NAICS (North American Industry Classification System) Industry Definitions

This appendix presents more detail on the official NAICS industry categories. Each industry breakdown is assigned a number, from two digits up to six digits, with more digits meaning a more detailed industry. The more detailed industry categories, all the way to 6-digit breakdowns, can be found at <http://www.census.gov/naics/2007/naics07.xls>. Information about the NAICS classification system generally is at <http://www.census.gov/epcd/www/naics.html>.

Example of industry detail and NAICS industry numbers. More digits = more detailed industry

<u>NAICS Code</u>	<u>Industry Title</u>
311	Food Manufacturing
3111	Animal Food Manufacturing
3112	Grain and Oilseed Milling
31121	Flour Milling and Malt Manufacturing
311211	Flour Milling
311212	Rice Milling
311213	Malt Manufacturing

NAICS Code	Industry Title
11	Agriculture, Forestry, Fishing and Hunting
111	Crop Production
112	Animal Production
113	Forestry and Logging
114	Fishing, Hunting and Trapping
115	Support Activities for Agriculture and Forestry
21	Mining, Quarrying, and Oil and Gas Extraction
211	Oil and Gas Extraction
212	Mining (except Oil and Gas)
213	Support Activities for Mining
22	Utilities
221	Utilities
23	Construction
236	Construction of Buildings
237	Heavy and Civil Engineering Construction
238	Specialty Trade Contractors
31-33	Manufacturing
311	Food Manufacturing
312	Beverage and Tobacco Product Manufacturing
313	Textile Mills
314	Textile Product Mills
315	Apparel Manufacturing
316	Leather and Allied Product Manufacturing
321	Wood Product Manufacturing
322	Paper Manufacturing
323	Printing and Related Support Activities
324	Petroleum and Coal Products Manufacturing
325	Chemical Manufacturing

326	Plastics and Rubber Products Manufacturing
327	Nonmetallic Mineral Product Manufacturing
331	Primary Metal Manufacturing
332	Fabricated Metal Product Manufacturing
333	Machinery Manufacturing
334	Computer and Electronic Product Manufacturing
335	Electrical Equipment, Appliance, and Component Manufacturing
336	Transportation Equipment Manufacturing
337	Furniture and Related Product Manufacturing
339	Miscellaneous Manufacturing
42	Wholesale Trade
423	Merchant Wholesalers, Durable Goods
424	Merchant Wholesalers, Nondurable Goods
425	Wholesale Electronic Markets and Agents and Brokers
44-45	Retail Trade
441	Motor Vehicle and Parts Dealers
442	Furniture and Home Furnishings Stores
443	Electronics and Appliance Stores
444	Building Material and Garden Equipment and Supplies Dealers
445	Food and Beverage Stores
446	Health and Personal Care Stores
447	Gasoline Stations
448	Clothing and Clothing Accessories Stores
451	Sporting Goods, Hobby, Book, and Music Stores
452	General Merchandise Stores
453	Miscellaneous Store Retailers
454	Nonstore Retailers
48-49	Transportation and Warehousing
481	Air Transportation
482	Rail Transportation
483	Water Transportation
484	Truck Transportation
485	Transit and Ground Passenger Transportation
486	Pipeline Transportation
487	Scenic and Sightseeing Transportation
488	Support Activities for Transportation
491	Postal Service
492	Couriers and Messengers
493	Warehousing and Storage
51	Information
511	Publishing Industries (except Internet)
512	Motion Picture and Sound Recording Industries
515	Broadcasting (except Internet)
517	Telecommunications
518	Data Processing, Hosting and Related Services
519	Other Information Services
52	Finance and Insurance
521	Monetary Authorities-Central Bank
522	Credit Intermediation and Related Activities
523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities
524	Insurance Carriers and Related Activities
525	Funds, Trusts, and Other Financial Vehicles
53	Real Estate and Rental and Leasing
531	Real Estate
532	Rental and Leasing Services
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)
54	Professional, Scientific, and Technical Services
541	Professional, Scientific, and Technical Services

55	Management of Companies and Enterprises
551	Management of Companies and Enterprises
56	Administrative and Support and Waste Management and Remediation Services
561	Administrative and Support Services
562	Waste Management and Remediation Services
61	Educational Services
611	Educational Services
62	Health Care and Social Assistance
621	Ambulatory Health Care Services
622	Hospitals
623	Nursing and Residential Care Facilities
624	Social Assistance
71	Arts, Entertainment, and Recreation
711	Performing Arts, Spectator Sports, and Related Industries
712	Museums, Historical Sites, and Similar Institutions
713	Amusement, Gambling, and Recreation Industries
72	Accommodation and Food Services
721	Accommodation
722	Food Services and Drinking Places
81	Other Services (except Public Administration)
811	Repair and Maintenance
812	Personal and Laundry Services
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
814	Private Households
92	Public Administration
921	Executive, Legislative, and Other General Government Support
922	Justice, Public Order, and Safety Activities
923	Administration of Human Resource Programs
924	Administration of Environmental Quality Programs
925	Administration of Housing Programs, Urban Planning, and Community Development
926	Administration of Economic Programs
927	Space Research and Technology
928	National Security and International Affairs

ECONOMIC RESEARCH INSTITUTE OF ERIE

Background

The purpose of Penn State Behrend's Economic Research Institute of Erie (ERIE) is to collect, analyze, interpret, and disseminate data and information on the Erie regional (Erie County) economy. Another important goal of ERIE is to provide our students with relevant experience with applied economic research and data analysis. Established in late 1982, the Institute is an applied research unit of Penn State Behrend's Sam and Irene Black School of Business.

We do not wish to duplicate the activities of other Erie-area organizations. Rather, we seek to use our collective training and experience in the areas of data handling and technical analysis to provide support to those whose expertise falls in different fields.

ERIE's continuing research program helps the local community better understand the regional economy and its linkages to the national economy. ERIE provides a source of information for local leaders and media who have questions about the local, national and international economies. ERIE compiles data on the local economy from a wide range of sources, and helps local users access and evaluate these data.

Some of the studies that ERIE has undertaken include:

- creation of a set of leading indicators for the Erie economy, the ERIE Leading Index (ELI).
- estimation of the costs to the local economy of Erie residents having to travel out of the area to seek treatment from pediatric sub-specialists.
- estimates of the impact of a split-rate property tax.
- estimates of the amount that would be raised by a county-wide 1% additional sales tax.
- estimates of productivity of Erie's workers through time and across industries, compared to the nation, and why productivity varies from place to place.
- estimates of brain drain and brain gain from local colleges.
- creation of a model to forecast total Erie employment, as well as employment in several component industries.
- three studies of philanthropic giving in the Erie area sponsored by leading non-profit agencies.
- a model to estimate the cost of living in all 67 counties of Pennsylvania for a state government agency.

ERIE staff have made over 100 presentations in the local community since 2000, speaking to audiences at the Manufacturer and Business Association of Northwest Pennsylvania, the Erie Ambassadors, the Erie Community Foundation, the Erie Chapter of the National Association of Purchasing Management, the Erie Conference on Community Development, and eleven Leadership Erie classes, among many others. ERIE regularly provides information for the print and electronic media in the community.

In addition, ERIE's work has resulted in an enhanced awareness of the Erie regional economy among national and international audiences. This stems from the over 90 technical paper presentations made by Institute staff members at national and international conferences. Among these are presentations in Amsterdam, Cambridge (England), Marseilles, Montreal, Paris, Quebec City, Reading (England), Toronto, Wellington (New Zealand), and Vancouver, as well as numerous major U.S. cities. Articles based on the Erie economy, written by members of the Institute staff, have appeared in *Economic Development Quarterly*, *Environment and Planning A*, the *International Journal of Forecasting*, the *Journal of Forecasting*, *Regional Studies*, *Systems Research*, the *Pennsylvania Economic Review* and other academic journals.

ERIE'S Activities

❖ **The ERIE Economic Conference**

Typically held annually, the ERIE Conference overviews the national and regional economies, and provides information on ERIE's latest projects. In addition, each conference focuses on a theme of importance to the local area. Information on previous conferences is available on our website in the *AboutUs* section.

❖ **ERIE Leading Index (ELI)**

ELI is a combination of local, state and national data series that tend to turn up and down before Erie employment does, giving early warning of impending changes in the direction of the local economy. Latest data about ELI are available on our website www.ERIEdata.org, and you can sign up there to receive the latest edition of ELI by email. ELI is made possible by a grant from Marquette Savings Bank and we are grateful for their support!

❖ **Maintenance and expansion of the ERIE web site: www.ERIEdata.org**

Released to the public in the fall of 2003, the ERIE website provides access to important information about ERIE and Erie. These include:

- An on-line library of reports and studies on the local economy, performed by ERIE and others, many downloadable;
- the ERIE Leading Index;
- current data on Erie's economy such as employment and unemployment levels, income, etc.
- ERIE's forecasts for the local economy;
- Hundreds of thousands of data points for Erie, the U.S. and selected other areas on such crucial variables as income, unemployment rates, employment by industry, wages and hours worked in manufacturing industries, occupational data, and much, much more.
- Information about ERIE, including ways in which we can help regional firms and agencies;
- Links to other important and relevant sites; and
- Other useful information as it is developed.

The Erie Regional Chamber and Growth Partnership provided funds for the site's construction, maintenance and expansion. The Erie Community Foundation provided important seed money to get this project started initially.

❖ **Targeted research projects, as needed for the local economy**

Based on discussions with community leaders and economic development officials, we will undertake selected research projects of local importance. Depending upon the availability of funding, the following are examples of the types of projects that would be feasible:

- Creation of an Erie Performance Index, a combination of timely Erie employment data with less-timely but more comprehensive average income levels by industry.
- Joint projects with local sponsors to create other measures of the local economy that could be reported regularly.
- The retail sector in Erie County: growth, pay rates, examination of sub-industries, comparisons to other areas, etc.
- The impact of the international economy on Erie.
- Determining Erie's "revealed" comparative advantage in international trade.
- The geographical distribution of Erie's foreign trade.
- The impact of foreign trade on the Erie economy, with special emphasis on the (projected) impact of China's entry into the World Trade Organization.
- Identification of potential foreign trading partners that could help stabilize Erie's economy.
- A statistical profile of Erie firms that conduct business internationally.
- Creation of a local Purchasing Manager Index that mirrors the national index.

FINANCIAL SUPPORT

The Institute's ongoing research program has been made possible through the support and cooperation of several groups both within and outside the University. The Black Family Endowment provides ongoing funds to keep ERIE up and running on an annual basis. Initial financial support for the establishment of the Institute was provided in part by a grant from the Manufacturer's Association of Northwest Pennsylvania. The Erie Regional Chamber and Growth Partnership provided major funding for the creation of our web site, ERIEdata.org. Additional support in the form of data contributions or funding for commissioned studies has been provided over the years by various firms, agencies and groups, including the Economic Development Corporation of Erie County, Marquette Bank, the Erie Community Foundation, the Workforce Investment Board of Northwest Pennsylvania, the Erie Conference on Community Development, the United Way of Erie County, and the Center for Rural Pennsylvania. The University provides staff salaries, library and travel support, research facilities, partial support for student research assistants, and state of the art computer hardware and software.

With suitable funding, it would be possible to expand the operations of ERIE. We are looking for partners to fund specific studies. Since we can draw on a large pool of talent in the form of both Penn State Behrend faculty and students, ERIE will be able to do more for the community as more funds are available.

Your financial support will enable us to answer important questions for the Erie economy, as well as supporting a number of hard-working undergraduate and graduate students. We can also work with you on projects of your choice for proprietary use. If you have a project that you would like to discuss, or if you are interested in supporting one of the projects mentioned above, please contact us at 898-6266 or e-mail the Director at k12@psu.edu.

We may also be able to help you find a good intern for that project you just don't have time to do yourself, or a good employee who is able to do business analysis and number-crunching.



ERIE Research Reports

Many of ERIE's research reports are listed below. Most of them are available for free from the OnlineLibrary section of the ERIE website: www.ERIEdata.org.

- Yates, Travis M. G. *Measuring International Exports at the County Level: Is it Possible?* December 2010. 31 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Brunot, Justin A. *The Economic Cost of Pediatric Patients Traveling Outside Northwest Pennsylvania for Subspecialty Treatment.* November 2010. 41 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Halapy, Michael J. *Index of Leading Metropolitan Areas.* Penn State Erie: University Scholars Thesis, May 2009. 73 pages.
- Gilson, Benjamin C. *Creating a More Timely Measure of Erie's Standard of Living.* December 2008. 38 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Halapy, Michael J. *Identifying Metropolitan Areas that Lead National Business Cycles* December 2008. 37 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Balsiger, Jennifer *Which Foreign Trade Partners Will Best Help to Stabilize the Erie Economy?* November 2008. 33 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- McAndrew, William P. *Brownfield Cause and Effect Analysis.* November 2007. 37 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- King, Kerry A. and Nesbit, Todd M. *The Potential Impacts of a Split-Rate Property Tax in the City of Erie.* July 2007. 37 pages.
- Kurre, James A. *The Impact of Information Technology on Metro Manufacturing Productivity.* June 2007. 37 pages.
- Pflueger, Jason C. *The Effect of Declining Manufacturing Employment on the Distribution of Income in U.S. Metro Areas.* Penn State Erie: University Scholars Thesis, Spring 2007. 84 pages.
- Kazmierczak, Alexander J. *What Type of Products' Prices Vary More Across Space? An Initial Examination.* December 2006. 43 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Schlosser, Benjamin S. *Analysis of Spatial Variation in Prices through Time.* September 2006. 45 pages.
- Riethmiller, Jeremiah R. *Follow the Leader: Creating an Index of Leading Economic Indicators for the Erie MSA.* Penn State Erie: University Scholars Thesis, Spring 2006. 150 pages.
- Kurre, James A. *Estimates of the Effect of a Potential 1% Sales Tax for an Erie County Regional Asset District.* May, 2006. 25 pages.
- Pflueger, Jason C. *Income Inequality In Erie: How Much Is There and Why?* October 2005. 89 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Riethmiller, Jeremiah R. *Follow the Leader: Finding Leaders of the Erie Economy.* May 2005. 39 pages. Funded by the Behrend College Undergraduate Student Academic Year Research Grant Program.

- Newcombe, Katharine J. *Social and Cultural Capital for "Creative" Economic Development*. Penn State Erie: University Scholars Thesis, Fall 2003. 37 pages.
- Kurre, James A. *Philanthropy in Erie County, 2001: A Survey of 50 Bellwether Nonprofit Organizations*. July 2003. Sponsored by The Erie Community Foundation. 19 pages.
- Hunter, Amy. *What Causes Manufacturing Productivity to Vary from Place to Place?* Spring 2003. 28 pages. Funded by the Behrend College Undergraduate Student Academic Year Research Grant Program.
- Gigliotti, Timothy D. *Penn State Erie's Contribution to Brain Drain and Brain Gain in Erie County, PA and the Penn State Erie Service Area*. March 2003. 29 pages. Funded by the The Behrend College Undergraduate Student Summer Research Grant Program.
- Gonser, Travis. *Productivity and Wages in Erie's Industries*. March 2003. 39 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Kurre, James A. "Is the Cost of Living Less in Rural Areas?" *International Regional Science Review*, v. 26, #1 (pp. 86-1116) January 2003. (Based on Differences in the Cost of Living Across Pennsylvania's 67 Counties, listed above.)
- Hammill, Michael L. *Productivity Growth In Erie Manufacturing through Time*. December 2002. 31 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Kurre, James A. and Weller, Barry R. *No Room at the Inn? Forecasting Hotel-Motel Revenues for a Local Area*. Presented at the 22nd International Symposium on Forecasting, Trinity College, Dublin Ireland, June 23-26, 2002. 25 pages.
- Kurre, James A. *Background Information on Economic Development Studies of the Erie Area*. June 2002. Prepared for the Civic Coordinating Committee. 16 pages.
- Washburn, James A. and Sadiarin, Hazel Garcia. *Brain Drain In Erie County*. November 2001. 30 pages. Funded by the Behrend College Undergraduate Student Summer Research Grant Program.
- Kurre, James A.; Warner, Jennifer K. and Weller, Barry R. *Can Foreign Trade Help to Stabilize a Metro Economy?* Paper presented at the 48th North American Meetings of the Regional Science Association International, Charleston SC, Nov 15-17, 2001. 25 pages.
- Kurre, James A. *Philanthropy in Erie County, 1998: A Survey of Non-religious Charitable Institutions*. November 2000. Sponsored by The Erie Community Foundation. 53 pages.
- Warner, Jennifer K. *Identifying Foreign Trade Partners to Stabilize the Erie Economy*. October 2000. 46 pages.
- Michel, Tricia L. *Erie Retail Sales: A Disaggregated Approach*. August 2000. 38 pages.
- Kurre, James A. *Differences in the Cost of Living Across Pennsylvania's 67 Counties*. March 2000. Prepared for the Center for Rural Pennsylvania. 78 pages.
- Weller, Barry R. and Kurre, James A. *A Leading Index for Small Metropolitan Areas*. Presented at the 19th International Symposium on Forecasting, Washington, DC, June 27-30, 1999.
- Kurre, James A. *Philanthropy in Erie County, 1995: A Survey of Non-religious Charitable Institutions*. March 1997. Sponsored by the Erie Community Foundation, The Erie Conference on Community Development and United Way of Erie County. 51 pages.

- Alexander, Shawn M. (student researcher); Kurre, James A.; Louie, Kenneth K.T.; and Weller, Barry R. "Forecasting Occupational Trends for a Small Metro Area." *Pennsylvania Economic Review*, v. 5, #2 (Spring 1996). pp. 10-30.
- Kurre, James A. and Weller, Barry R. "Interindustry Covariance Patterns: Too Unstable for Portfolio Variance Analysis to Be a Useful Tool?" *Economic Development Quarterly*, v. 10, #1 (February 1996), pp. 91-103.
- Risjan, Randy D. *Retail Sales and the Erie Economy*. August 31, 1995. 60 pages.
- Kurre, James A and Louie, Kenneth K.T. *The Impact of Industrial Diversification of Exports on Export Stability*. Presented at the Fourth International Meeting of the International Trade and Finance Association, Reading England, July 13-16, 1994. 17 pages.
- Louie, Kenneth K.T. and Kurre, James A. *The Effect of Export Destination on the Volatility of the Export Sector*. Presented at the Fourth International Meeting of the International Trade and Finance Association, Reading England, July 13-16, 1994. 19 pages.
- Kurre, James A. *The Cost of Living in Rural Pennsylvania*. June 1992. Prepared for the Center for Rural Pennsylvania. 81 pages.
- Kurre, James A.; Louie, Kenneth K.T.; and Weller, Barry R. With Adrienne Shrawder. "Tell Me Your Industries and I'll Tell Your Fortune": A Study of Income Levels in the Erie Economy. ERIE Technical Report Number 8. September 1991. 38 pages.
- Kurre, James A. *Property Tax Reassessment in Erie County: Is It Needed and What Would Its Effect Be?* ERIE Technical Report Number 7. February 1990. 25 pages.
- Kurre, James A. *Cyclical Adjustments in Wages, Employment and Hours Worked in the Erie Economy*. ERIE Technical Report Number 6. April 1987. 24 pages.
- Weller, Barry R. *Recent Developments in Business Forecasting: A Survey of Methods and an Illustrative Application to the Erie Economy*. ERIE Technical Report Number 5. April 1987. 60 pages.
- Kurre, James A. and Weller, Barry R. *The Effect of Individual Industry Cycles on Erie Regional Employment Stability*. ERIE Technical Report Number 4. April 1985. 26 pages.
- Weller, Barry R. *Forecasting Erie Regional Employment Cycles: A Leading Indicator Approach*. ERIE Technical Report Number 3 April 1985. 27 pages.
- Kurre, James A. *A Shift-Share Analysis of the Erie Economy: 1970-1980*. ERIE Technical Report Number 2. December 1983. 24 pages.
- Weller, Barry R. *Impact of the National Business Cycle on Regional Employment: A Study of the Erie SMSA*. ERIE Technical Report Number 1. December 1983. 25 pages.

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(Retired)

Student Research Assistants

ERIE has employed more than 50 students as Research Assistants (RAs) and Graduate Research Assistants (GRAs) over the years. In their position as Research Assistant, students learn to find economic data on the Web and in publications, to assess strengths and weaknesses of the data, to download the data, and efficiently enter them into standard spreadsheet and statistical software packages. They also learn how to graph, manipulate and analyze the data, turning them from raw numbers into useful information. Along with financial support, the students get a very attractive item for their resume and a set of skills that subsequent employers have found very useful. Our former research assistants have later held jobs with the U.S. Bureau of Economic Analysis, the Bureau of Labor Statistics, the Department of Housing and Urban Development, the Federal Reserve Banks of Cleveland and Philadelphia, the Governor's Action Team, and many private-sector firms both locally and around the country. Some of our Research Assistants have been co-authors with us on articles published in professional journals, and some have won awards for their presentations at research conferences.

Graduate Research Assistants

Travis Yates (2011-Present)	Katherine Newcombe (2002-03) Business Economics	Jennifer Junk (1992-93) MBA
Clay O'Dana (2010-11)	Michael Hammill (2002-04) Business Economics	Deborah Jones (1992) Business Economics
Jeremiah Riethmiller (2009-10)	Travis Gonser (2001-02) Business Economics	Douglas Del Porto (1991-92) Business Economics
Jon Curtis (2008-09)	Tricia Michel (2000) Business Economics	Adrienne Shrawder (1990-92) Accounting
Ben Schlosser (2006-08)	Denise Cressley (2000) Business Economics	Michael Casper (1990-91) Business Economics
Emily Oborski (2005-06)	Christopher Collins (1999) Business Economics	Todd Swartz (1990-91) Management Info. Systems

Undergrad Research Assistants

Justin Brunot (2010-Present) Business Economics	Matt Dubowski (1998-99) Business Economics	Neal Cheskis (1990) Business Economics
Michael Buesink (2009-10) Business Economics	Kelly Updegraph (1998-99) Business Economics	Joseph Giannamore (1990) Business Economics
Pat Walling (2007-09) Business Economics	Erica Lamberton (1997-98) Business Economics	Michael Ross (1990) Business Economics
Mike Halapy (2007-09) International Business	Theresa Freeman (1997-98) Business Economics	Joye Dado (1989) Business Economics
Alex Kazmierczak (2006-07) Business Economics	Jasmine Anderson (1996-97) Business Economics	Mark Prestage (1988-89) Accounting
Jason Pflueger (2005-07) Economics	James Stickney (1996-97) Business Economics	Clifford Woodruff (1988-89) Business Economics
Clinton Knittle (2006) Economics	Randy Risjan (1995-96) Business Economics	Patricia Causgrove (1986-88) Business Economics
Chris Sitter (2005-06) Business Economics	Steven Swiderski (1995-96) Business Economics	Matthew Filippi (1988) Marketing
Jeremiah Riethmiller (2005-06) Business Economics & Finance	Melissa Gehr (1994) Bus., Lib. Arts and Sciences	Edward Miseta (1988) Business Economics
Peter Binotto (2003-04) Business Economics	James Horton (1994) Bus. Econ. and Management	Norman Toth (1988) Accounting
Amy Hunter (2003) Business Economics	Jane Hill (1993-94) Economics	David Flynn (1987) Economics and Mathematics
Amanda Gilkinson (2003) Business Economics	Terry Muha (1993-94) Business Economics	Dana Bucci (1986) Business Economics
Ken Schwab (2003-05) Business Economics	Shawn Alexander (1993-94) Business Economics	Kelvin Pier (1985) Accounting

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