University of Pittsburgh

VOLUME 1, ISSUE 2, SEPTEMBER 2000

# PITTSBURGH ECONOMIC QUARTERLY

Center for Social and Urban Research

INSIDE THIS ISSUE:



***In light of the proposed merger between USAirways and United, this month's issue focuses on the airline industry in the Pittsburgh region. This issue includes:***

- Occupational employment changes in the airline industry.
- How large the regional airline industry is compared to other regions.
- Import/export breakdown of air transportation demand in the Pittsburgh region.

## AIRLINES IN THE REGIONAL ECONOMY

The air transportation industry is often cited as a key part of the regional economy. Employment growth in the regional airline industry has been significantly greater than that of many other industries over the last decade here. The dominance of USAirways has made the proposed merger with United Airlines of particular importance to the future of air transportation in the regional economy. The impact of the proposed merger depends on the role that current USAirways flights, facilities, and staff would play in the future combined company.

To understand the changes that could take place if the merger is approved, it is necessary to understand the customer base served by the Greater Pittsburgh International Airport. It is important to distinguish between the service that is provided to those traveling to or from Pittsburgh and those who are routed through Pittsburgh because of the USAirways hub here.

Populations in all regions generate some demand for airlines and other transportation industries. This translates into earnings and employment that exist in all regions across the country. Management, sales, and maintenance staff are far more concentrated in specific regions. The evolution of hub

*Continued on page 2*

**Wages and Salaries in the Air Transportation Industry Selected Regions 1998 (earnings in millions of 1998 $)**

| Metro Area | Air Trans. Wages & Salaries | Total Wages & Salaries | Air Trans. as % of Total |
|---|---|---|---|
| Austin, TX | 92 | 22,454 | 0.4 |
| Boston, MA | 940 | 134,806 | 0.7 |
| Chicago, IL | 2,979 | 178,259 | 1.7 |
| Cincinnati, OH | 663 | 30,776 | 2.2 |
| Cleveland, OH | 332 | 41,737 | 0.8 |
| Detroit, MI | 1,077 | 92,729 | 1.2 |
| Ft.Worth, TX | 2,248 | 26,314 | 8.5 |
| Houston, TX | 1,570 | 94,482 | 1.7 |
| Miami, FL | 1,394 | 32,866 | 4.2 |
| Minneapolis, MN | 1,605 | 64,233 | 2.5 |
| ***Pittsburgh, PA*** | ***1,064*** | ***39,951*** | ***2.7*** |
| Philadelphia, PA | 708 | 94,424 | 0.7 |
| St. Louis, MO | 711 | 46,835 | 1.5 |
| UNITED STATES | 52,343 | 4,408,261 | 1.2 |

*Source: Regional Economic Information System, Dept of Commerce*

## WHO LIVES DOWNTOWN?

Part of the public debate over the future development of downtown Pittsburgh centers around the amount of housing that exists there and the size of the population that lives downtown. The downtown neighborhood as defined by the City includes what is commonly considered the Golden Triangle, framed by the three rivers and also the area immediately surrounding the Civic Arena.

In total, Census Bureau statistics for the downtown population were calculated to be 3,785 in 1990. A more standard definition of the central business district (CBD) would exclude the Civic Arena area, which would give downtown a population of 3,114 in 1990. This is a small but not insignificant base of population for retail and entertainment businesses to draw from. It is comparable to the CBDs of Cincinnati and Minneapolis and larger than the downtown populations of Baltimore, Buffalo, and Washington, DC.

However, a number that is often overlooked in statistics about downtown Pittsburgh is that a significant part of the population is derived from the county jail. Included in the 3,114 people counted as living in the Golden Triangle are 1,438 who were incarcerated. It is an important number to remember when figuring the current and future size of the downtown population. If the jail population is removed, the size of the downtown population is one of the smallest major city CBDs in the country.

The size of the population in or near downtown has decreased significantly over the last 50 years. In 1950, the size

*Continued on page 3*

# AIR TRANSPORTATION INDUSTRY (CONT)

*Continued from page 1*

routing has added to the level of concentration of air transportation employment for certain areas. The resulting dispersion of employment gives airlines a varying degree of importance in regional economies across the United States. For Pittsburgh, the earnings derived from wages and salaries in the air transportation industry measured just over $1 billion in 1998. This translates to 2.7% of total regional earnings. This is larger than many regions that do not have the same magnitude of flights and maintenance facilities that exist here. The share of airline related earnings in the regional economy is more than twice as high as the national average of 1.2%.

Some regions have airline industries that are relatively smaller than the national average. Cleveland has one of the smallest regional airline industries, which accounts for 0.8% of its economy.

Sales in the air transportation industry in the Pittsburgh region are estimated to be $1.7 billion annually. The bulk of the demand that generates this business is outside of the region. The level of service provided by the air transportation industry to the local population was estimated at $626 million in 1998 using regional models at the Center for Social and Urban Research. This is less than one-third of the value of total output of the regional air transportation industry.These regional exports were estimated at over $1.2 billion in 1998. This high ratio between exports and local demand for air transportation is not typical across the country and is the direct result of the concentration of flights and services here because of the regional hub of USAirways.

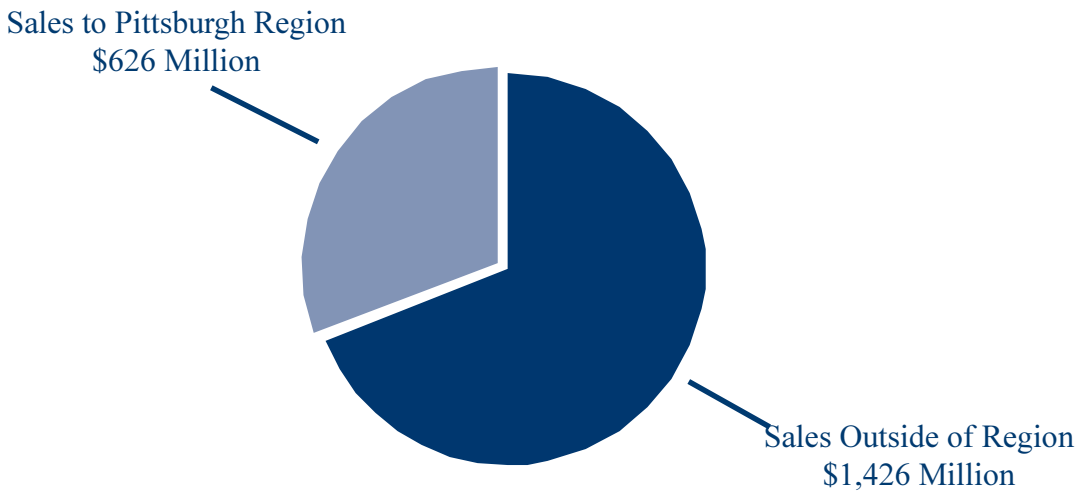
Whether Pittsburgh maintains this level of concentration in airline employment is hard to forecast. Merger induced scale economies often lead to the elimination of duplicate services at many levels of an organization. With USAirways headquartered in Washington DC, the effect of losing key management jobs will be mitigated here. The worst case scenario would be a future United Airlines that does not use Pittsburgh as a major hub airport. If that were to happen, the question would be whether another airline would expand flights into the region as part of a new hub.

With a local population of under 2.5 million, local demand for air transportation only has a modest potential for increasing the total demand in the regional airline industry. A greater potential for future growth comes from the expansion of hub flights and the maintenance and other support services for a national airline system.

Much of this conjecture depends on the completion of the proposed merger. There are significant issues that may prevent the deal. Major mergers must be approved by the Federal Trade Commission (FTC), and the Department of Justice may sue under existing antitrust laws. The merger would be one of the largest in the history of the U.S. airline industry, but with multiple other carriers there is reason to believe that competition would still exist. This would be the basis for review by the FTC. The Justice Department would look in more detail at anti-competitive practices and has shown increased activity in recent years, including a suit against American Airlines pertaining to small, low cost competition at its Dallas hub. The possibility exists that the merger would be prevented from taking place or significantly altered from its current proposed form.

If the merger does not go through, the future of USAirways and, thus, the regional airline industry is not without some uncertainty. USAirways lost over $200 million in its last fiscal year, and the success of building a new, low cost carrier -- Metrojet -- is unclear.

**What Generates Sales in the Pittsburgh Air Transportation Industry (1998)**




*Source: Pittsburgh REMI Model, University Center for Social and Urban Research*

# WHO LIVES DOWNTOWN (CONT)

*Continued from page 1*

of the Golden Triangle/Civic Arena population was listed as 7,517 but dropped quickly to 2,111 when the Civic Arena displaced several thousand housing units and the people who lived in them from the Crawford Square section of the lower Hill District between 1958-1961.

One surprising statistic is that since 1960 the population of the downtown neighborhood actually increased by over 60% between 1960-1990. This is surprising only in that no other Pittsburgh neighborhood has experienced growth over that same time frame. This is a likely result of some new residential development downtown over the past several decades, but mostly due to the expansion of the inmate population.

Current population statistics for the downtown region are hard to interpret because of the large number of inmates included in aggregate numbers. There exists almost no youth population downtown, with the percentage of under 18 measured at less than 1% of the total in 1990. The loss of housing units to the Civic Arena affected both minority and family housing disproportionately as can be seen by the comparison of age and minority composition of downtown over the years 1940-1990.

**Central Business District Populations**
**Selected Cities 1990**

| City | Size | HU | Pop | Density |
|---|---|---|---|---|
| Baltimore | 0.46 | 1,126 | 1,683 | 3,663 |
| Boston | 0.87 | 5,241 | 8,861 | 10,218 |
| Buffalo | 0.72 | 818 | 1,518 | 2,105 |
| Cincinnati | 0.74 | 1,787 | 3,383 | 5,218 |
| Cleveland | 1.71 | 3,184 | 5,380 | 3,143 |
| Minneapolis | 0.62 | 2,046 | 3,388 | 5,437 |
| Philadelphia | 2.10 | 33,461 | 45,214 | 21,538 |
| ***Pittsburgh*** | ***0.56*** | ***1,001*** | ***3,114*** | ***5,597*** |
| San Francisco | 0.87 | 16,308 | 24,397 | 28,046 |
| Washington, DC | 0.80 | 1,066 | 1,984 | 2,472 |

CBD definitions from 1982 Census of Retail Trade.
HU= Housing Units. Size in square miles.
Demographic data from1990 Census of Population and Housing.

**Downtown Pittsburgh Population 1940-1990**

| | Population | % Minority | % Under 18 |
|---|---|---|---|
| 1940 | 7,864 | 21.8 | 17.4 |
| 1950 | 7,517 | 28.4 | 15.3 |
| 1960 | 2,211 | 14.7 | 3.4 |
| 1970 | 3,679 | 7.7 | 2.9 |
| 1980 | 3,220 | 20.7 | 1.6 |
| 1990 | 3,785 | 32.5 | 0.9 |

***In Memorial***

UCSUR Assistant Director Steven Manners passed away on September 15, 2000. He was a beloved and key member of UCSUR for over 25 years. His career at the Center included work in almost all major projects. He was instrumental in the creation of the *PEQ*. He will be greatly missed.

## *What's New at the University Center for Social and Urban Research (UCSUR)*

The U.S. Department of Housing and Urban Development (HUD) granted the University of Pittsburgh a three year grant of $399,702 to improve neighborhoods near its Oakland Campus. ***Sabina Deitrick***, co-director of the Urban and Regional Analysis Program at UCSUR, is also co-director of this project, which will receive an additional $483,700 in matching funds from the University and community groups.

UCSUR Director ***Richard Schulz*** will receive the Kleemeier Award for Studies on Social Behavior and Adult Development. The award will be presented November 18, 2000 at the 53rd Annual Scientific Meeting of the Gerontological Society of America in Washington, DC.

UCSUR Graduate Research Assistant ***Jun Myung*** was awarded a scholarship to attend the GIS Standard Workshop at the University of Illinois at Urbana-Champaign, further enhancing UCSUR's Geographic Information Systems (GIS) and environmental modeling capabilities.

Dr. ***Mi-Gyeung Yeum*** is visiting UCSUR for the 2000-2001 academic year as part of a project studying the politics of industrial restructuring and revitalization and will focus on a comparison of the Pittsburgh region with the Japanese Kitakyushi region.

**Pittsburgh MSA Region Manufacturing Employment By Sub-Sector 1995-2000***

| Sub-sector | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | Change 1995-2000 | % Change |
|---|---|---|---|---|---|---|---|---|
| Apparel & Other Textiles | 1,700 | 1,600 | 1,700 | 1,500 | 1,400 | 1,400 | -300 | -17.6% |
| Chemicals & Allied Products | 9,700 | 9,500 | 9,900 | 10,400 | 9,900 | 10,300 | 600 | 6.2% |
| Electronic & Elec. Equipment | 7,900 | 8,600 | 10,300 | 11,600 | 12,500 | 13,300 | 5,400 | 68.4% |
| Fabricated Metal Products | 13,500 | 13,700 | 13,700 | 14,100 | 14,600 | 14,400 | 900 | 6.7% |
| Food & Kindred Products | 7,000 | 6,800 | 6,700 | 6,900 | 6,800 | 6,900 | -100 | -1.4% |
| Industrial Machinery & Equip | 18,800 | 19,800 | 20,500 | 20,800 | 19,500 | 19,700 | 900 | 4.8% |
| Lumber & Wood, Incl Furniture | 3,300 | 3,200 | 3,200 | 3,500 | 3,600 | 3,500 | 200 | 6.1% |
| Paper & Allied Products | 3,000 | 3,000 | 3,100 | 2,900 | 2,900 | 2,900 | -100 | -3.3% |
| Primary Metal Industries | 28,600 | 28,800 | 27,900 | 27,800 | 26,200 | 25,600 | -3,000 | -10.5% |
| Printing & Publishing | 10,000 | 9,800 | 10,400 | 10,300 | 10,300 | 10,400 | 400 | 4.0% |
| Stone, Clay, Glass Products | 10,800 | 11,000 | 10,800 | 11,000 | 10,000 | 10,200 | -600 | -5.6% |

*Source: Current Employment Statistics, PA Dept of Labor and Industry, PA Labor Market Information Database System (PALMIDS).*
**Measured in July of each year. Pittsburgh MSA is composed of Allegheny, Beaver, Butler, Fayette, Washington, and Westmoreland counties.*

# EMPLOYMENT CHANGES IN MANUFACTURING

Overall, manufacturing employment in the Pittsburgh Region would appear to have stabilized from its long-term decline during the 1990s. While total manufacturing employment for the region has been stagnant overall, it has not created significant job losses in recent years.

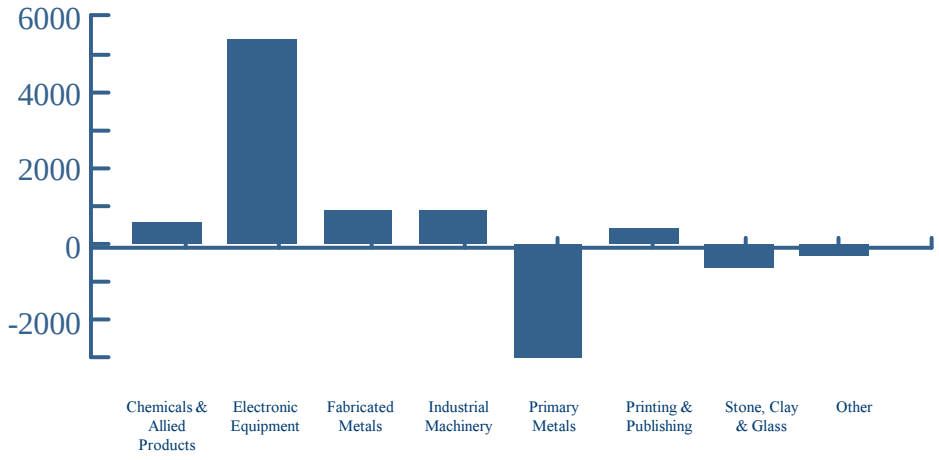
Despite the stable overall level of regional manufacturing employment, there are significant changes taking place within individual manufacturing subsectors. Most notably there is continuing decline in the traditional core parts of the regional economy, namely primary metals, and only minimal growth in chemical and industrial equipment manufacturing subsectors.

The strongest growth within regional manufacturing industries has been generated by the electronics and electrical equipment subsector. With growth of 5,400 jobs over the last five years, it more than offset the losses that took place over the same period in primary metals (-3,000) and stone, clay, and glass (-600) industries, which were the biggest losers. Without the expansion of jobs in electronics and electrical equipment firms, the overall level of manufacturing employment would have continued its long-term decline in the region.

There are few other growth sectors within manufacturing industries in the region. Industrial machinery and fabricated metals both grew by 900 jobs over the five-year period 1995-2000. These expansions represented cumulative growth of only 4.8% and 6.7%, respectively.

The expansion of 5,400 jobs in electronics was a far larger relative gain, representing an over 68% increase from 1995 levels of employment. Much of the expansion of the electronics industry in the region can be accounted for by the expansion of the Sony Plant in Westmoreland County. Overall employment at the plant itself has grown while at the same time attracting secondary job growth to the region due to goods and services needed as inputs.

**Change in Employment for Manufacturing Sub-Sectors 1995-2000**




*Source: PA Dept of Labor and Industry, PA Labor Market Information Database System (PALMIDS)*

# UNEMPLOYMENT RATE DROPPED

Preliminary unemployment rates for the Pittsburgh region dropped 0.3% in August 2000 from the previous month.

Total employment in August 2000 measured 1,116,300, which was slightly less than the 1,120,200 from a year ago. Over the same time period, the level of unemployment dropped from 49,600 to 45,400. These two numbers together represent the total labor force for the region, which dropped by 8,100 between August 1999 and August 2000. This drop is mainly the result of continuing net outmigration of workers from the region and the retirement of older workers as the population ages.

During the summer, the number of unemployed peaked at 48,800 in July. Summer unemployment surged with the ending of temporary employment of Census workers and seasonal layoffs of education related workers. Students began to leave the workforce at the end of the summer, forcing down unemployment. Fall employment is anticipated to rise as education related workers return to work. At the same time, construction employment in coming months will fall depending on the weather.

**Regional Unemployment Rates By County**

| | Recent Months | | | | |
|---|---|---|---|---|---|
| | May | June | July | Aug$_p$ | Aug 99 |
| Allegheny | 3.5 | 3.8 | 3.8 | 3.6 | 4.0 |
| Beaver | 4.1 | 4.4 | 4.5 | 3.9 | 4.7 |
| Butler | 3.4 | 4.1 | 4.1 | 3.8 | 4.1 |
| Fayette | 5.7 | 6.3 | 5.9 | 5.5 | 5.9 |
| Washington | 4.2 | 4.7 | 4.5 | 4.5 | 4.2 |
| Westmoreland | 4.3 | 4.8 | 4.7 | 4.3 | 4.6 |
| ***Pittsburgh MSA*** | ***3.8*** | ***4.2*** | ***4.2*** | ***3.9*** | ***4.2*** |

*Source: PA Department of Labor and Industry*
*p: preliminary, all data unadjusted for seasonal variation.*

# OCCUPATIONS IN THE AIRLINE INDUSTRY

The air transportation industry is made up of more than just pilots and aircraft mechanics. Airlines employ a diverse set of occupations that are needed not only for the operation of the fleet of aircraft but the ground support and sales staffs that keep the airport running. Support and maintenance of the airport itself requires an even more expanded set of skills and workers.

The largest set of occupations in the air transportation industry is in administrative and related fields. Fully 25% of all jobs in the industry fit this definition. This may seem surprising, but not when it is realized that many of the ground support jobs at the airport actually fit this definition. This includes many of the staff that are responsible for check-in and boarding of the many flights each day. Although it is one of the biggest occupation groups, it has also experienced the slowest growth in the level of employment. Over the last 20 years, it has lagged all other major occupation groups in creating more jobs.

The rate of job growth is different across occupations and time periods. The table indicates that the overall level of job growth was much higher during the 1980s than the 1990s. This pattern is similar across all occupations, although to differing degrees. This is a slightly misleading characterization in that there was a major reclassification of the location of jobs at then-USAir, which made it appear as if there was a 70% increase in local air transportation employment. This shift took place in 1989, which makes comparisons across years difficult.

**Estimated Employment By Occupation in the Regional Airline Industry, 1980-2000**

| Occupation | 1980 | 1990 | 2000 | Percentage Change 1980-1990 | Percentage Change 1990-2000 |
|---|---|---|---|---|---|
| Executive, administrative, managerial | 244 | 623 | 1030 | 155 | 65 |
| Professional speciality | 98 | 285 | 527 | 191 | 85 |
| Technicians and related support | 556 | 1243 | 1791 | 124 | 44 |
| Marketing and sales | 89 | 254 | 457 | 185 | 80 |
| Administrative support | 1542 | 3446 | 4967 | 123 | 44 |
| Service | 626 | 1633 | 2752 | 161 | 69 |
| Blue collar worker supervisory | 112 | 275 | 440 | 146 | 60 |
| Mechanics, installers, repairers | 589 | 1426 | 2244 | 142 | 57 |
| Production | 33 | 76 | 114 | 130 | 50 |
| Motor vehicle operators | 455 | 1163 | 1927 | 156 | 66 |
| Helpers, laborers, material handlers | 523 | 1334 | 2203 | 155 | 65 |
| Other | 190 | 483 | 805 | 154 | 67 |

*Source: Pittsburgh REMI Model, University Center for Social and Urban Research*

# Economic Impact Analysis Part I: Industry Multipliers

This is the first part of a series of articles intended to highlight some of the technical aspects of economic impact analysis. This initial article will give a brief introduction of what economic impact analysis is as it pertains to the regional economy. It will focus on the effect of industry multipliers which are an important part of analyzing changes in the region. Economic impact analysis is a major part of public policy when it comes to evaluating economic development projects. For any specific change in a regional industry, the total effect on the regional economy usually extends to multiple other industries in the region.

The importance of an accurate measurement of that total effect is crucial to most decisions on economic development policy for the region and also in forecasting the effect of changes that are occurring now. The specific events that would warrant an impact analysis include any significant new investment in the region or major plant closing or downsizing. In the region, the projects that would warrant impact analysis include the new stadiums, the closing of the LTV steel plant in 1998, and the new operations centers for both PNC and Mellon banks.

This article focuses on a key part of impact analysis: industry multipliers. Any specific project generates economic output in a specific industry. The total effect that a regional economy will experience is almost always more than the effect in that one industry. The demand of intermediate goods and services is a major source of secondary job creation. For example, when a steel plant closes, the job losses extend to the businesses that sold goods to that plant.

The patterns of input goods are specific to both an industry and a region. Manufacturing industries require significantly more input goods than do typical service or retail trade businesses. Different regions have a different set of intermediate goods suppliers. Thus, it makes a big difference how many jobs are created in Pittsburgh when a steel plant closes than when a steel plant closes in a region with a lower concentration of steel plants. For Pittsburgh, many of the supplies and services needed by the steel industry are also produced here, so the loss of those jobs would affect us as well. When a steel plant closes elsewhere, the same intermediate goods jobs are lost, but they are more likely to be in a different region than where the plant was. The table below highlights what the calculated multipliers are for certain industries at the national level. Each of these industries (construction, primary metals, motor vehicles, retail trade, air transportation) have an impact on the demand for goods and services across all industries. The table shows how each dollar in new spending for the specified industry translates into new business across all industries. The total is always more than the marginal dollar itself and sometimes significantly more. The additional impact is derived from secondary impacts caused by input goods production and services that are also needed by the specified industry.

The differences between manufacturing and services is apparent immediately. The table shows the distribution of new economic activity generated for each dollar of new demand in a specific industry. For the motor vehicle industry, the multiplier is 2.78, which means that for every dollar of new car demand produced, an additional $1.78 was produced across a wide rang of industries.

For the motor vehicle industry, the bulk of the secondary demand produced was also in manufacturing, showing the large input requirements of that industry. There was also significant additional demand created in service and trade industries. Other industries had significantly smaller secondary job creation effects.

In future issues, this series will cover other aspects of economic impact analysis, including the role of regional purchasing coefficients, import/export share of markets, and displacement effects of new investment on existing businesses in the regional economy.

**Multiplier Effect Per Dollar of New Business Activity**

Selected National Industries: Value of Total Goods and Services Demanded

| | Industry with New Demand | | | | |
|---|---|---|---|---|---|
| Final Demand: | Construction | Primary Metals | Motor Vehicles | Retail Trade | Air Trans |
| Agriculture | 0.017 | 0.004 | 0.007 | 0.004 | 0.006 |
| Mining | 0.040 | 0.119 | 0.035 | 0.014 | 0.088 |
| Manufacturing | 0.527 | 1.533 | 2.123 | 0.122 | 0.258 |
| Construction | 1.013 | 0.028 | 0.022 | 0.022 | 0.022 |
| TPU | 0.095 | 0.201 | 0.136 | 0.079 | 1.215 |
| FIRE | 0.065 | 0.060 | 0.083 | 0.121 | 0.087 |
| Retail+Wholesale Tra | 0.120 | 0.122 | 0.167 | 1.014 | 0.038 |
| Services | 0.186 | 0.130 | 0.194 | 0.132 | 0.165 |
| Government | 0.011 | 0.023 | 0.016 | 0.024 | 0.032 |
| Total Effect | 2.074 | 2.220 | 2.782 | 1.531 | 1.912 |

*Source: Regional Input-Output Modeling System (RIMS II), Dept of Commerce, Bureau of Economic Analysis*

# Where Do People Moving Out of Pittsburgh Go To?

The topic of migration has continuing interest in the region, which may explain the responses which the *PEQ* received to its focus on migration in its initial June issue.

The Center for Social and Urban Research has compiled additional data on migration from a unique data source. The IRS has a database of income tax filers who change their address each year. From these data, the IRS provides a total of how many people move between each pair of counties in the country. Compiling these data for the region allows for some detailed analysis of the migration flows in the Pittsburgh region, both in terms of the major source of people moving into the region and where people typically move to when they leave.

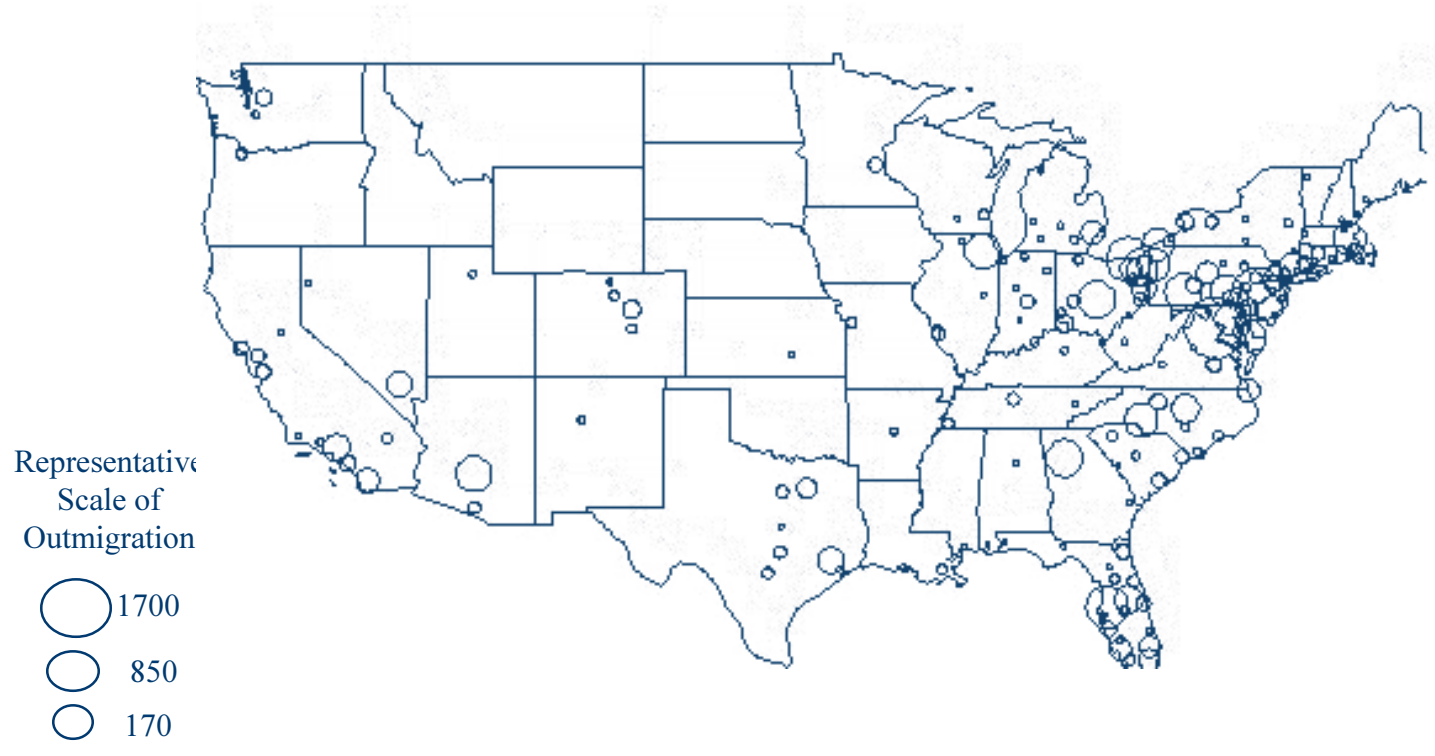
The figure below shows the major metropolitan regions where outmigrants from the Pittsburgh region have moved to in the most recent year for which data are available: March 1, 1998 through February 28, 1999. For the Pittsburgh region, outmigration is dominated by movement of people to areas relatively close to Pennsylvania. Half of all outmigrants from the metropolitan area move to other parts of Pennsylvania or to the bordering states of Ohio, New York, Maryland, West Virginia, and New Jersey. More people moved to Cleveland during this time period than to all locations in California and Texas combined.

Inmigration is equally dominated by people moving to Pittsburgh from relatively close regions. Top regions which people move to Pittsburgh from include Cleveland, Washington, DC, and the smaller Pennsylvania regions of Erie, Johnstown, and Sharon.

IRS data also allow for some comparison of the size of families that move between regions. For each group of county to county movers, the total number of IRS filings is available as is the total number of exemptions claimed for that same group. One result is that the average exemptions per filing is very different for the group that moved from Pittsburgh to Boston (1.5 exemptions per filing on average) and those who moved from Pittsburgh to Johnstown (1.9 exemptions per filing). This may be evidence of more families moving to Johnstown and more single movers going to Boston.

These data are useful sources of information for studying regional migration patterns. Additional information on regional migration can be obtained by calling the Center for Social and Urban Research (412-624-5442). More detailed migration data from the IRS can be found online at: www.pitt.edu/~ucsur/migration.html

**Destinations of Outmigrants from the Pittsburgh Region, 1998-1999**



**UCSUR**
**University of Pittsburgh**

121 University Place
Pittsburgh, PA 15260

Phone: 412-624-5442
Fax: 412-624-4810
Email: peq@pitt.edu

On the Web
www.pitt.edu/~ucsur

TO:

**Pittsburgh Economic Quarterly**

*Editor*
Christopher Briem

*Production Assistant*
Anna Aivaliotis

**University Center for Social and Urban Research**

*Director*
Richard Schulz

**Urban and Regional Analysis**

*Co-Directors*
Ralph Bangs
Sabina Deitrick

# PITTSBURGH ECONOMIC QUARTERLY

## Recent Publications By the Center for Social and Urban Research

The State of the Region Report: Economic, Demographic, and Social Conditions in SWPA (9/99)

African American and Women Board Members of Economic Development Organizations in the Pittsburgh Region (7/99)

The Pittsburgh REMI Model: Long-Term REMI Model Forecast for Allegheny County and the Pittsburgh Region and Policy Simulation Methods (3/99)

Economic Benchmarks: Indices for the City of Pittsburgh and Allegheny County (9/98)

Basic Living Cost and Living Wage Estimates for Pittsburgh and Allegheny County (10/97)

Pittsburgh Benchmarks: Black and White Quality of Life in the City of Pittsburgh and Allegheny County (9/96)

Quality of Life Databook: Black and White Living Conditions in the 50 Largest U.S. Cities and States (9/96)

Profiling the Aged in the City of Pittsburgh and Allegheny County (8/96)

Black and White Economic Conditions in the City of Pittsburgh: A Benchmarks Special Report (6/95)

## Subscription Form

**Please send me the Pittsburgh Economic Quarterly**

Name _____

Address _____

_____

_____

Mail to: ***PEQ***
UCSUR
121 University Place, 6th Fl
Pittsburgh, PA 15260
Or Fax: 412-624-4810