

PITTSBURGH ECONOMIC QUARTERLY

University Center for Social and Urban Research

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THE IMPACT OF THE UNIVERSITY OF PITTSBURGH CANCER INSTITUTE AND UPMC CANCER CENTERS ON THE PITTSBURGH REGIONAL ECONOMY

By Sabina Deitrick and Christopher Briem

The University of Pittsburgh Cancer Institute (UPCI) and UPMC Cancer Centers generate substantial impacts on the Southwestern Pennsylvania regional economy. UCSUR has recently completed a study that estimates the economic impacts of UPCI and UPMC Cancer Centers on the Southwestern Pennsylvania region. The study calculates the total economic impact of UPCI and UPMC Cancer Centers on the Pittsburgh region and projects those impacts through 2020. The region includes Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Washington, and Westmoreland counties.

UPCI is the academic and research center for cancer at the University of Pittsburgh and UPMC. UPCI works in tandem with UPMC Cancer Centers, UPMC's clinical

network for cancer care. UPCI and UPMC Cancer Centers together make up a leading cancer center whose impact extends beyond its main scientific research and health mission to generating economic benefits for the region.

UPCI and UPMC Cancer Centers have expanded rapidly in the past 20 years. In 1990, UPCI was designated as a Comprehensive Cancer Center by the National Cancer Institute (NCI), the region's only such NCI Center. UPMC acquired the Hematology Oncology Associates and Oncology Hematology Associates practices in 1996 and 2000, respectively, among other practices. The Hillman Cancer Center in the Shadyside/Oakland neighborhoods of Pittsburgh, opened in 2002, marking yet another milestone in the Institute's growth. Today, with over 40 locations, UPCI and UPMC Cancer Centers continue to

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CENSUS 2000 SPECIAL EEO DATA FOR ALLEGHENY COUNTY AND THE PITTSBURGH REGION

By Christopher Briem

The U.S. Bureau of the Census prepares data that can be used to analyze anti-discrimination laws in the workplace. The first such dataset was prepared after the 1970 census. In 2000, the Census Bureau prepared the tabulations under the following federal agencies: the Equal Employment Opportunity Commission (EEOC), the Department of Justice

(DOJ), the Department of Labor (DOL), and the Office of Personal Management (OPM).

The Census 2000 Special Equal Employment Opportunity (EEO) tabulation files serve as the primary external benchmark for comparing the race, ethnicity, and gender composition of an organization's internal workforce, within a specified job category. It also

allows for the same degree of detail for the external labor market. UCSUR has compiled data from the Census 2000 EEO tabulation files for counties in the Pittsburgh Metropolitan Statistical Area (MSA).

Data are presented for occupational employment patterns for EEO occupation groups and detailed occupation data based on the Census

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**IMPACT OF THE UNIVERSITY OF PITTSBURGH CANCER INSTITUTE
AND UPMC CANCER CENTERS (CONT.)**

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grow both regionally and internationally, with Cancer Centers now in Ohio, West Virginia, and Ireland.

Medical facilities contribute to a regional economy in many ways. They represent substantial interregional exports, generating employment and income for the regional economy. They purchase significant amounts of goods and services from the local economy, as well as from outside the region. Additionally, as physical entities, medical facilities and educational institutions represent significant assets for neighborhoods, cities, and regions that may be used to stimulate additional development. Finally, primary health care provided by UPMC Cancer Centers clearly has an impact on the region’s quality of life. Factors that affect the quality of life change the amenity value of the Pittsburgh region. The health sector and its components are an important part of the region’s quality of life, as well as its economy.

In Pennsylvania, the hospital sector is one of the state’s largest employers, with 254,500 employees in 2004, or nearly 5% of the state’s total jobs. The overall health care industry in Pennsylvania generated over \$36 billion, or 7%, of total Gross State Product (GSP).

In Pittsburgh, the health care sector is estimated to account for over \$8 billion of the region’s Gross Regional Product (GRP), or roughly 8% of the region’s nearly \$100 billion economy. Health care and social assistance, the major industry category for health care, employed 164,600 people in the region in 2004, while the educational sector employed 48,900 people in the same year. Thus, institutions such as UPCI and UPMC Cancer Centers play a significant role in the Pittsburgh regional economy.

Forecast of Total Economic Impact of UPCI and UPMC Cancer Centers on Pittsburgh Region, 2006-2020

Summary Variables – 2% growth scenario	2006	2010	2015	2020
Total Employment	6,532	6,324	5,925	5,999
Total Gross Regional Product (millions of 2006 \$)	\$451	\$473	\$499	\$557
Total Regional Output (millions of 2006 \$)	\$720	\$734	\$759	\$845
Labor Force	2,344	4,384	4,873	5,012
Population	2,435	5,581	7,262	8,091
Summary Variables – 2.8% growth scenario				
Total Employment	6,532	6,383	6,061	6,217
Total Gross Regional Product (millions of 2006 \$)	\$451	\$477	\$509	\$576
Total Regional Output (millions of 2006 \$)	\$720	\$741	\$776	\$875
Labor Force	2,344	4,408	4,951	5,153
Population	2,435	5,607	7,357	8,280
Summary Variables – 4% growth scenario				
Total Employment	6,532	6,475	6,280	6,589
Total Gross Regional Product (millions of 2006 \$)	\$451	\$484	\$527	\$609
Total Regional Output (millions of 2006 \$)	\$720	\$751	\$804	\$926
Labor Force	2,344	4,447	5,077	5,389
Population	2,435	5,649	7,511	8,594

The study estimates the total economic impact of UPCI and UPMC Cancer Centers on the Pittsburgh regional economy using UCSUR’s Regional Economic Modeling, Inc. (REMI) model. The model estimates the total impact on the region, multiplied beyond the effects of direct spending such as purchases and payroll. Subsequent rounds of spending by businesses and individuals results in secondary spending impacts, called the indirect and induced effects. The total of direct, indirect, and induced effects of UPCI and UPMC Cancer Centers’ spending is captured in the impact analysis here.

Also of importance is that UPCI and UPMC Cancer Centers exceed the typical impact of a large service hospital because of their research functions. UPCI and UPMC Cancer Centers’ research means that as focused specialty healthcare institutions, they produce a large

amount of expenditures per individual health care worker and thus have a larger economic impact in the region.

Specifically, the current economic impacts of the UPCI and UPMC Cancer Centers include:

- The direct and secondary impacts of the University of Pittsburgh Cancer Institute and UPMC Cancer Centers total economic activity contributed \$451 million to Gross Regional Product (GRP) in the Southwestern Pennsylvania region in 2006 (see table above).
- The total direct and secondary employment impacts from clinical and research activities at the University of Pittsburgh Cancer Institute and UPMC Cancer Centers resulted in an increase of 6,532 workers in 2006 to the regional economy.
- UPCI and UPMC Cancer Centers added \$720 million to Total Regional Output in 2006 through

total direct and indirect effects. Total regional output is a broad measure of the regional economy and is the equivalent to total sales.

The report develops a baseline forecast and three different growth scenarios for UPCI and UPMC Cancer Centers through 2020. All three growth scenarios incorporate a baseline population forecast for the region, which is the same for each growth scenario. Projected local demand for future services is limited by slow population growth in the region.

The three growth scenarios reflect different projections for future revenue growth tied to research and export clinical care activities, where “export” clinical care activities are those drawn from outside the Pittsburgh region. As

UPCI has grown to become one of the largest cancer centers in the country, its long-term growth trend will be tied to national research funding. The three growth scenarios reflect recent and long-term trends in National Cancer Centers funding. The following impacts are projected:

- UPCI and UPMC Cancer Centers are projected to contribute between 6,000 jobs and 6,589 jobs to net job creation in the Pittsburgh region by 2020.
- The combined effects of UPCI and UPMC Cancer Centers are projected to add between \$557 million and \$609 million to total Gross Regional Product by 2020.
- Total Regional Output added by UPCI and UPMC Cancer Centers is projected to reach \$926 million

in 2020 under the high growth scenario (see figure below).

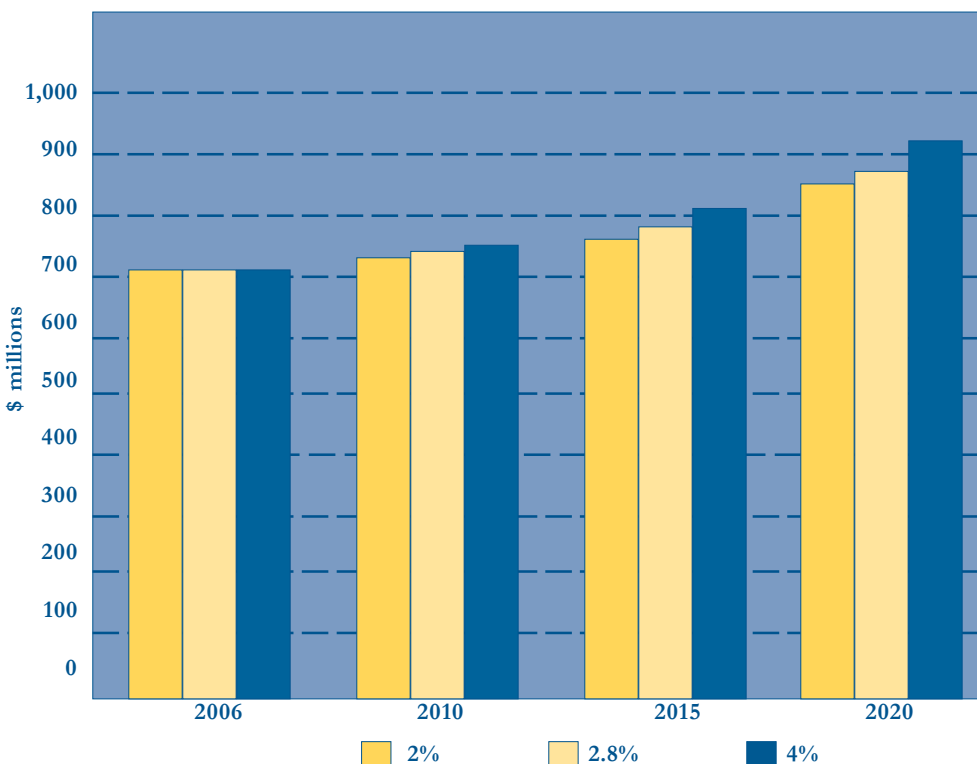
- The presence of UPCI and UPMC Cancer Centers stimulate expansion in the economy as a whole, as these institutions expand. Growth in UPCI and UPMC Cancer Centers through 2020 is projected to increase population in the region by between 8,091 and 8,594, with additions to the regional labor force nearing 5,400 workers by 2020.

UPCI and UPMC Cancer Centers’ employment impacts are not limited to additions in the health care sector. UPCI and UPMC Cancer Centers are projected to add jobs in other industries, especially in services, trade, and construction. In addition, their activities will have important fiscal impacts on state and local governments. The REMI model projects additions between \$67 and \$72 million in state government revenues by 2020. Additions to local revenues are projected to add \$56 to \$59 million by 2020.

UPCI and UPMC Cancer Centers have expanded rapidly and will continue to expand into the future. Their impact on the regional economy will also continue to grow. The results here show the important and substantial impacts that UPCI and UPMC Cancer Centers have on the Southwestern Pennsylvania region and will continue to have in the coming decades.

The full report, “The Impact of the University of Pittsburgh Cancer Institute and UPMC Cancer Centers on the Pittsburgh Regional Economy,” will be available online in July 2007 at UCSUR’s website: www.ucsur.pitt.edu.

Projected Impact of University of Pittsburgh Cancer Institute and UPMC Cancer Centers on Total Economic Output, Pittsburgh Region, 2006-2020



Census 2000 Special EEO Data for Allegheny County and the Pittsburgh Region (CONT.)

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2000 Occupational Classification System. The EEO occupation groups are 14 summary groups of related occupations that are adapted from, but not identical to, the major groups assigned by the Standard Occupational Classification (SOC) system. The Census 2000 Occupational Classification System consists of 509 detailed categories, including four for military specific occupations. Data are presented for two sub-regions of the Pittsburgh MSA: Allegheny County and the remaining six counties of the MSA (Armstrong, Beaver, Butler,

Fayette, Washington and Westmoreland counties).

In Allegheny County, the two occupation groups that employed the largest number of African-Americans in 2000 were the *Service Workers, except Protective*, occupation with 12,761 African-American workers and the *Administrative Support Workers*, with 12,279 African-American workers. Figure 1 shows the percentage of African-American employment in each EEO Occupational Group for the two subregions of the Pittsburgh MSA.

Protective Service Workers employed the highest proportion of African-American workers in 2000, representing 16.5% of total employment within the occupation group.

For Allegheny County, the EEO Occupation Groups with the lowest number of African-American workers include *Construction and Extractive Craft Workers* with 924 total employees and *Science, Engineering and Computer Professionals* with a total of 1,157 workers. These two occupation groups also represent the

Figure 1. African American Employment, by Percent Share of Employment by EEO Occupation Group - Allegheny County and Remainder of Pittsburgh MSA, 2000

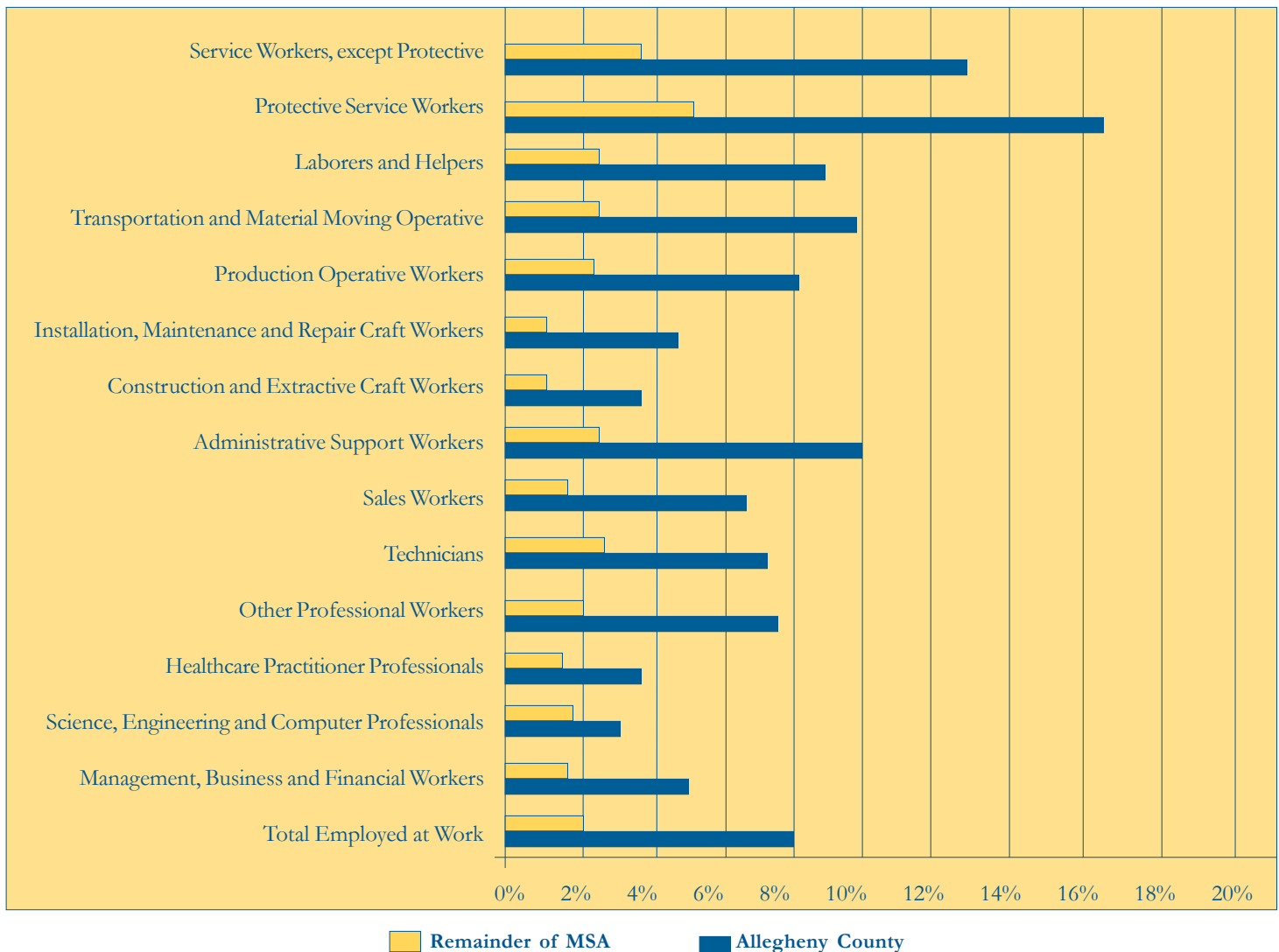
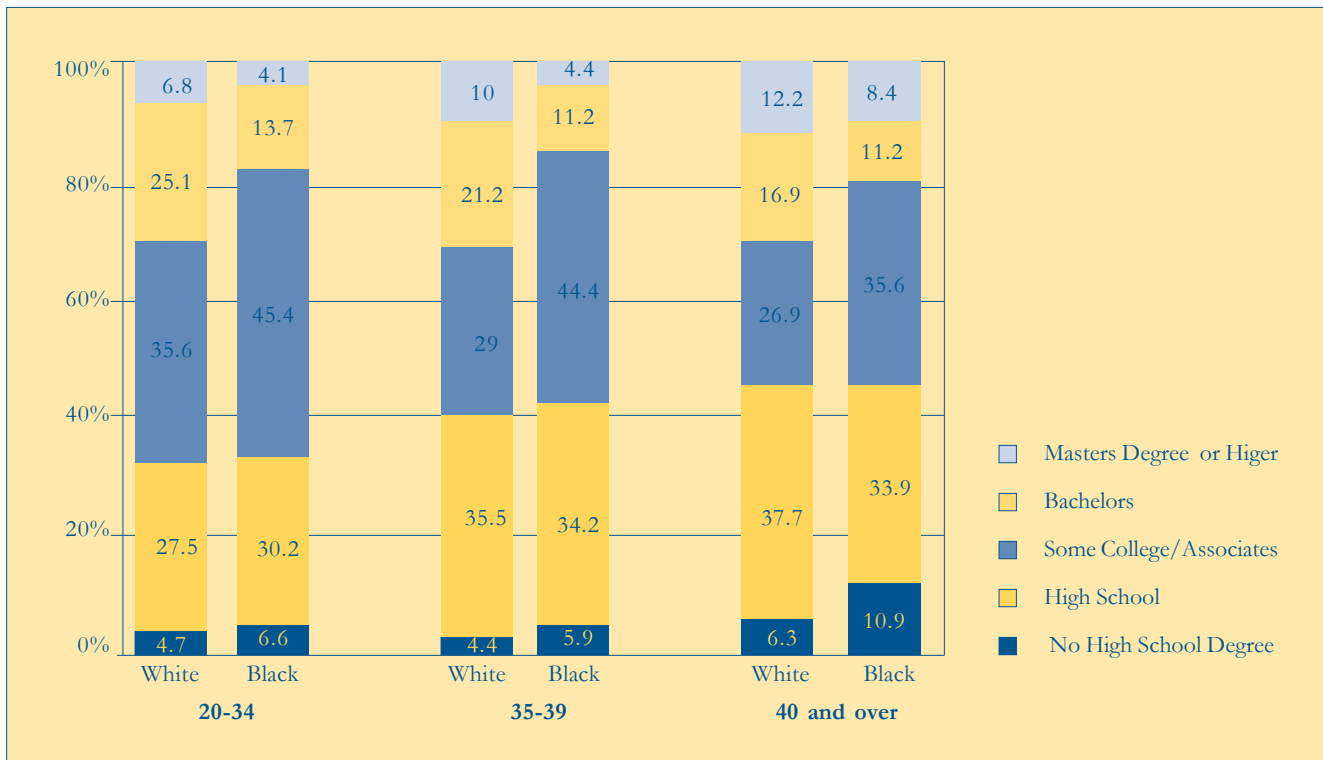


Figure 2. Educational Attainment of Workers by Race and Age Group - Pittsburgh MSA, 2000



lowest proportion of African American workers, representing 3.0% and 3.4%, respectively, of total employment within the occupation group in 2000.

EEO data also provide a breakdown of employment by race, age group, and educational attainment. Among all workers of all races, 8.3% had not obtained a high school degree or equivalent, while 18.6% of all workers have a bachelor’s and 10.1% have a master’s degree or higher. These patterns differ across racial and age groups. Among African-American workers in 2000, nearly 11% in the Pittsburgh region did not have a high school degree. African-Americans with at least a college degree totaled 11,178 workers, or 17.6% of all African-American workers in 2000. This is lower than the comparable

figure for White, non-Hispanic workers in the region, with nearly 29% of White workers having at least a college degree.

Younger workers were more likely to have more education - 31.5% of workers between 20 and 34 years of age in 2000 had a bachelor’s degree or higher, while 28.9% of workers over age 40 attained the same education level. African-American workers had lower educational attainment than Whites by all age groups, but, interestingly, African-American workers over age 40 were better educated, on average, than younger African-American workers. Nearly 20% of African-American workers 40 years or older in 2000 had at least a bachelor’s degree, while the comparable figures for those 20-34

(17.8%) and 35-39 (15.6%) were lower.

The full EEO special tabulation file includes more detailed data than is presented here. The Census Bureau has compiled occupational data based on other classifications of jobs, including OPM occupational categories and nine EEO-1 job categories. More information on the special tabulation is available on the Census 2000 Equal Employment Opportunity (EEO) file homepage: <http://www.census.gov/hhes/www/eoindex/eoindex.html>.

Migration Update for the Pittsburgh Region, 2000-2006

By Christopher Briem

UCSUR has compiled Internal Revenue Service (IRS) migration data for the Pittsburgh region between 2000 and 2006. These data allow for a breakdown of both in-flows and out-flows of migration with individual counties in the United States. Data have been aggregated for cumulative migration flows for the seven-county Pittsburgh Metropolitan Statistical Area, including Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland counties.

The migration data show that between 2000 and 2006, a total of 216,738 people moved into the Pittsburgh region, while 251,179 moved

out of the region. This resulted in a net population loss of 34,441 persons. On average, over this period, 41,863 people moved out of the region annually, while 36,123 moved into the region each year.

By metropolitan area, the largest in-flows and out-flows of migration come from the Washington, D.C., Philadelphia, and New York City metropolitan areas (see table below). Following these are a set of nearby metropolitan and micropolitan regions with significant migration flows in and out of the Pittsburgh region: Indiana, Youngstown, New Castle, Cleveland and Erie.

More people moved from the

Pittsburgh region to the Washington, D.C. region than to any other area of the country between 2000 and 2006. Between 2000 and 2006, 9,009 persons left the Pittsburgh region for the Washington, D.C. area. When out-migration and in-migration are taken together, Pittsburgh also had the largest population loss to the Washington, D.C. region over the same years. The Washington, D.C. MSA gained 3,535 more people from the Pittsburgh region than it lost between 2000 and 2006.

Other regions to which Pittsburgh lost significant population include Tampa-St. Petersburg-Clearwater, FL (net loss of 2,470), Charlotte-Gastonia-Concord, NC-SC (-1,852), Atlanta-Sandy Springs-Marietta, GA (-1,781), Phoenix-Mesa-Scottsdale, AZ (-,630), and Philadelphia-Camden-Wilmington (-1,591).

Net gains in population between 2000 and 2006 were mostly from smaller regions closer to Pittsburgh, including Johnstown (net gain of 797), Erie (+444), Wheeling (+340), Scranton-Wilkes Barre (+200), and Altoona (+163).

The IRS migration data compiles administrative records from the IRS's individual master file, which includes a record for every individual income tax return filed by citizens and resident aliens with the IRS. Statistics derived from individual income tax returns are based on the year-to-year changes in the addresses reported by tax filers. The IRS does not release any data on individual taxpayers, but aggregates the total number of people who move between each pair of counties.

The IRS migration data is not a complete picture of migration patterns. A significant amount of migration in the United States comes from international

Migration Flows to the Pittsburgh Region, Ranked by 25 Largest Gross Migration Flows, 2000-2006

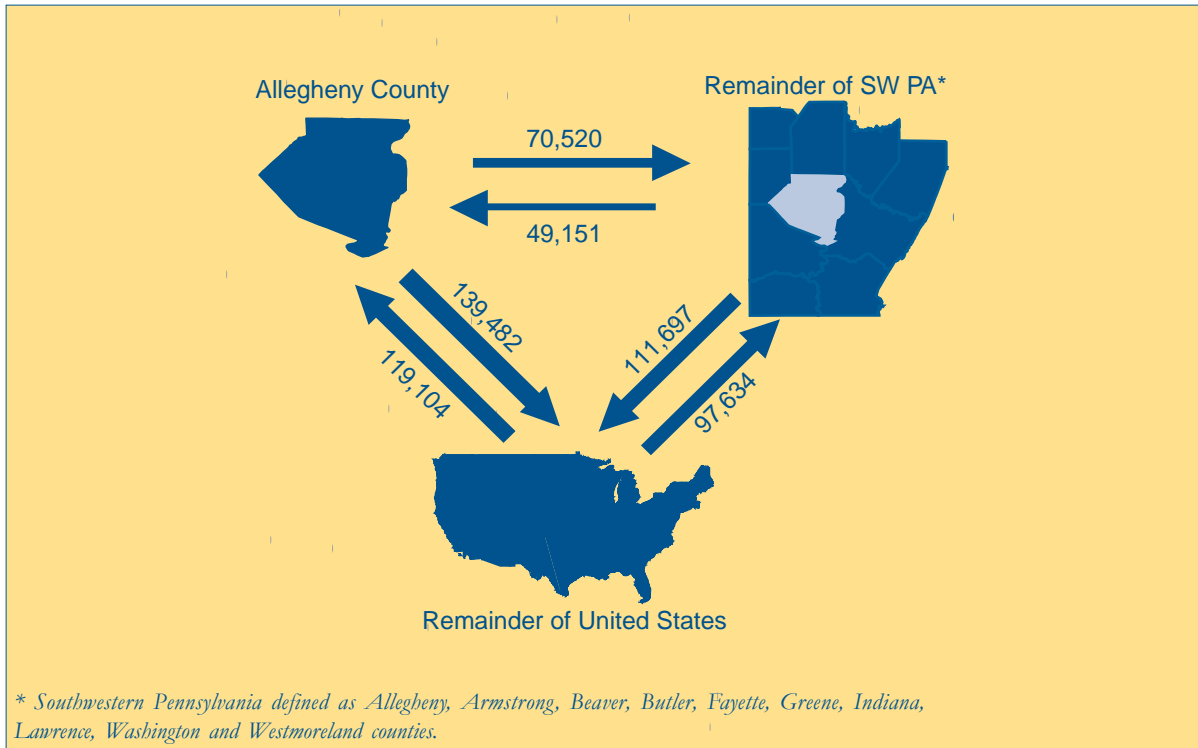
Metropolitan/Micropolitan Region	Into Pittsburgh	Out of Pittsburgh	Net Migration
Washington-Arlington-Alexandria	5,474	9,009	-3,535
Philadelphia-Camden-Wilmington	6,117	7,708	-1,591
New York-Northern New Jersey-Long Island	5,507	6,378	-871
Indiana	5,237	5,093	144
Youngstown-Warren-Boardman	4,658	4,912	-254
New Castle	4,271	4,900	-629
Cleveland-Elyria-Mentor	3,377	3,918	-541
Erie	3,423	2,979	444
Miami-Fort Lauderdale-Miami Beach	2,574	3,433	-859
Columbus	2,387	3,579	-1,192
Tampa-St. Petersburg-Clearwater	1,687	4,157	-2,470
Chicago-Naperville-Joliet	2,443	3,344	-901
Baltimore-Towson	2,083	3,415	-1,332
Los Angeles-Long Beach-Santa Ana	2,291	2,907	-616
Atlanta-Sandy Springs-Marietta	1,670	3,451	-1,781
Phoenix-Mesa-Scottsdale	1,599	3,229	-1,630
Boston-Cambridge-Quincy	1,927	2,530	-603
Harrisburg-Carlisle	2,037	2,251	-214
Weirton-Steubenville	2,029	2,136	-107
Johnstown	2,421	1,624	797
Somerset	1,782	1,805	-23
Charlotte-Gastonia-Concord	812	2,664	-1,852
Orlando-Kissimmee	923	2,225	-1,302
Houston-Sugar Land-Baytown	943	1,766	-823
Morgantown	1,380	1,306	74

immigrants who were not previously residents. The IRS migration statistics are comparable mostly to domestic, or internal, migration statistics. The IRS data also do not capture all domestic migration in the United States. Not

everyone files a tax return. Students, seniors, those who have recently lost a spouse or others with low income are some of the populations that are not captured well by IRS tax filings. The IRS migration data is estimated to

capture 80% of the movement of the population domestically within the U.S. each year.

The full report on migration trends is available at UCSUR's website at: www.ucsur.pitt.edu/publications.htm.



RECIPIENTS OF THE 2007 STEVEN D. MANNERS AWARDS

Each year, UCSUR awards the Steven D. Manners Faculty Development Awards to promising research and infrastructure projects on campus. These awards honor the memory of Steve Manners, a sociologist who began working at the Center 1974 and served as its Assistant Director from 1989 until his death in September 2000. His research and service to the Center and the University community were dedicated to improving social conditions in the urban environment. The following received the 2007 Manners Awards from UCSUR:

Patricia Isabel Documet, MD, DrPH, Assistant Professor, Behavioral and Community Health Sciences, Graduate School of Public Health, “Groundwork for Testing a Collectivist Approach to Cervical Cancer Screening Among Latinas.”

Latinas and other minorities are under-screened for cervical cancer and share a disproportionate burden of disease and death due to this cause. The proposed research will develop a standardized training curriculum for women who will recruit other women, pilot test measures of social network and attitudes toward screening among community women, and field a clinic preparation strategy to deliver a collectivist approach to cancer screening. It is important to conduct this research in a “new growth area” (fast growing but still isolated Latino communities), such as western Pennsylvania, because these areas have almost no services addressing cultural differences. This information

can be used by researchers, practitioners, public health workers, and Latinos as well as policymakers and administrators.

Jeffrey Shook, JD, MSW, PhD and Michael Vaughn, PhD, both Assistant Professors at the School of Social Work, “The Back End of the Criminal Justice Process: An Exploratory Study of the Experiences and Outcomes of Juveniles on Adult Probation and Parole.”

Legislative changes over the last several decades have eased the process of treating juveniles as adults in the justice systems, leading to an increasing number of juveniles tried and sentenced as adults. Many of these youth end up receiving a probation or short prison sentence. Using administrative data and probation and parole officer case notes, this pilot project will focus on what is known as the “back end” of the criminal justice process by examining the pathways that juveniles follow after sentenced to probation or released on parole. This research will both add to existing knowledge concerning the consequences of treating juveniles as adults and examine the feasibility of a larger funded project to expand understandings of the experiences and outcomes of juveniles at the back end of the criminal justice process.

For more information about the Steven D. Manners Faculty Development Awards, contact Dr. Lynn Martire at 412-624-6172 or martire@pitt.edu.

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