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More than Support and Services: The Nonprofit Sector as an Economic Asset

■ *By Sabina Deitrick and Christopher Briem*

The nonprofit sector in the U.S. plays an increasingly critical role in our cities, regions, states, and nation in the 21st century. Its importance is even more pronounced in today's economic decline.

Additionally, not only do nonprofit organizations fulfill diverse social and environmental missions to improve our quality of life, these organizations collectively constitute a vital part of our regional economy.

In 2004, nonprofit organizations employed nearly 150,000 people in the Pittsburgh region, or 14 percent of the region's workforce, and generated millions of dollars of economic activity related to the services that they provide.

We previously reported the employment impacts of the nonprofit sector in the region (*PEQ*, September 2006). In 2008, the Forbes Funds of Pittsburgh commissioned UCSUR to examine the total economic impacts of the nonprofit sector on the Pittsburgh region. The final report, *The Nonprofit Sector: An Economic and Community Asset*, was presented at the Forbes Funds 2009 Annual Nonprofit

Sector Research Conference on February 5 at Point Park University. This article summarizes the main findings from this work.

The Nonprofit Sector— Recent Trends

In 2006, there were 3,187 nonprofit organizations in the region. The nonprofit sector represents a diverse set of organizations, large and small, fulfilling charitable missions, as defined by the federal government. Even though most nonprofit organizations are small, collectively the sector is a big part of our regional economy.

In 2006, nonprofit organizations in southwestern Pennsylvania paid their workers \$6.2 billion in compensation, comparable to the \$6.5 billion paid in compensation by the manufacturing sector. These nonprofit organizations also paid \$16.6 billion in expenses in 2006, with \$13.2 billion in Allegheny County alone.

Recent trends show that the nonprofit sector is a major part of our region. It is growing and has become an even bigger part of our regional economy. Between 2002 and 2006, compensation in the nonprofit sector in the Pittsburgh region increased by 8.5 percent in inflation-adjusted dollars, a faster rate than the region's total compensation growth of 2.9 percent.

Despite operating in a challenging financial environment with changes in federal funding, state allocations, and philanthropic priorities in recent years, most nonprofit organizations in the Pittsburgh region have managed, on average, to grow. An indicator of this fiscal health is the number of

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The Pittsburgh region has more than 3,000 nonprofit organizations, representing a diverse set of missions and orientations. There are 2,565 "grassroots" organizations with budgets less than \$250,000. The "safety net organizations," with budgets between \$250,000 and \$50 million numbered 806 in 2006. There were 22 very large nonprofit organizations, with expenses greater than \$50 million in 2006, representing "economic engines" for the region.

Clean Energy and the Pittsburgh Region

■ *By George E. Klinzing, Shaio Hung Chiang, and Ken Sochats*

The demand for energy, both globally and locally, has been increasing at an accelerating rate. Many factors have contributed to this growth including greater industrialization in developing nations and increased consumption around the world. Satisfying this need is a complex problem involving economic, political, environmental, technical, and other issues.

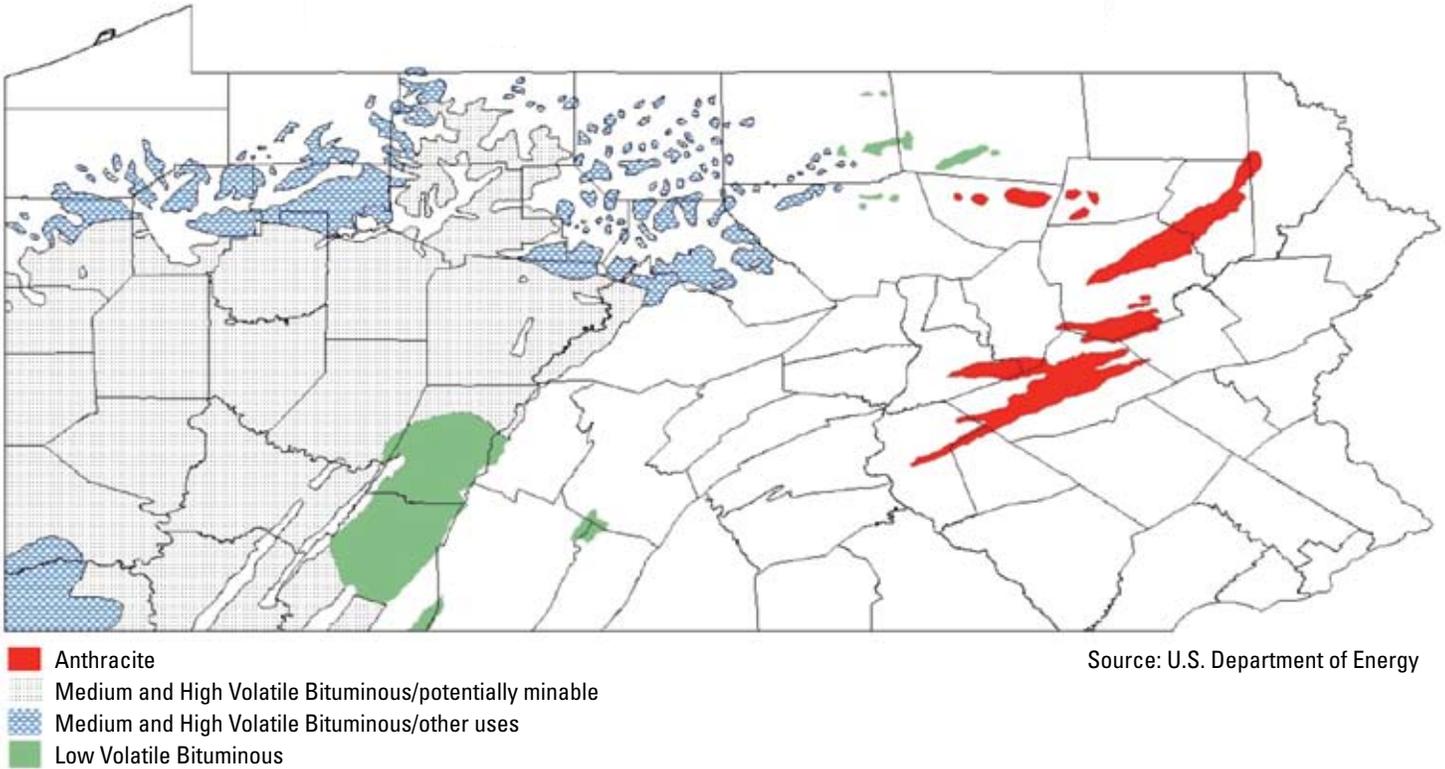
In the U.S., our reliance on imported energy sources limits our options for operating nationally and in the international arena. The solution to this energy crisis must

involve conservation, more effective consumption through, for example, electric/hybrid automobiles, and the wise development of existing and new sources of energy.

Coal represents an existing source of energy with possible cleaner applications. Coal played an essential role in the development of the Pittsburgh region as a major manufacturing center. Coal provided the energy to make steel, aluminum, glass, and other products. In the Pittsburgh region, coal is abundant and relatively easily accessible at a reasonable cost.

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Figure 1: Pennsylvania Coal Reserves



Source: U.S. Department of Energy

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Coal Reserves in Pennsylvania

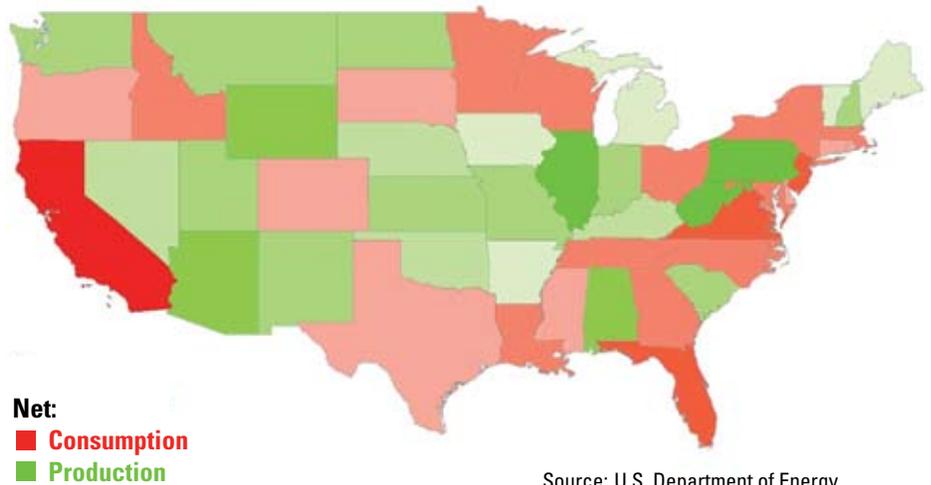
Figure 1 above shows the locations of coal in Pennsylvania. The U.S. Department of Energy (DOE) reports (2000) that demonstrated reserves of bituminous coal exceed 28 billion tons. It also estimates recoverable reserves of bituminous coal at 12 billion tons. DOE estimates anthracite coal reserves at 7 billion tons located in the state's northeast and east central counties.

Since World War II, Pittsburgh has transformed its economy from an industrial-based to a service-based economy. Part of this transformation was due to the general trend in the U.S. away from primary manufacturing toward technology-based industries. Also contributing to this change was the pollution caused by burning coal. The combustion of coal creates pollution in the form of particulate matter, sulfur/nitrogen dioxides, mercury, and carbon dioxide.

Net Production and Consumption of Coal

Coal is the predominant fuel for the generation of electricity in Pennsylvania, and

Figure 2: Electricity Production and Consumption by State



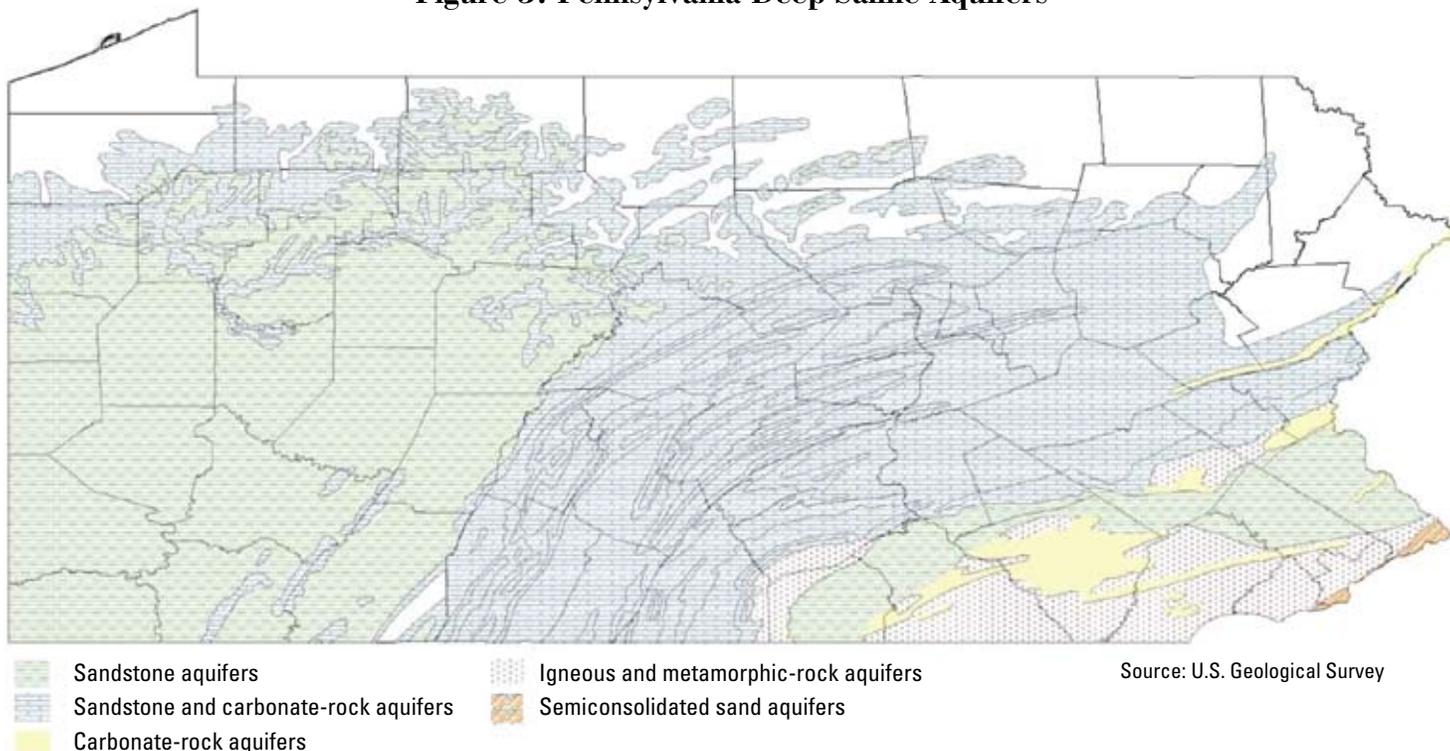
Source: U.S. Department of Energy
Energy Information Administration

today, coal still plays an important role in the Pittsburgh region's economy. Figure 2 above shows a U.S. map with the states color coded according to their level of net production or consumption of electricity.

Green states are net producers of energy or exporters, while red states consume more energy than they produce. The shade of color indicates the magnitude of this excess or deficit production.

According to DOE statistics for 2005, Pennsylvania, particularly western Pennsylvania, was the largest exporter of electricity—more than 600 trillion BTUs. Much of the surplus electricity is transmitted to states on the east coast. In addition to the direct economic contribution that coal makes in providing energy to run businesses, a single electricity generation station can create over 1000 jobs.

Figure 3: Pennsylvania Deep Saline Aquifers



Much has been accomplished in the intervening years to make the combustion of coal cleaner. Significant progress has been made toward removing particulates, sulfur/nitrogen dioxides, and trace metals from the smokestack emissions of coal-fired power and manufacturing plants. Efforts are now focused on the removal of carbon dioxide, a greenhouse gas, from plant emissions.

New Applications from Research

Researchers at the University of Pittsburgh's Center for Energy are developing technologies to address the problems associated with the emission of carbon dioxide as a byproduct of energy production. The Center brings together an interdisciplinary team of mechanical engineers, geologists, environmental engineers, chemists, and other scientists to address a broad range of technical and policy issues related to energy production and use.

One thread of this research is oriented to discovering how the carbon dioxide produced might be used to create other economically useful chemicals such as methane, methanol, and more complex hydrocarbon compounds. Some of these methods are already in use in the chemical industry but they consume only a

small part of our carbon dioxide production.

Excess carbon dioxide has also been used to enhance oil recovery in depleted oil fields. The carbon dioxide is injected into wells to force crude oil and natural gas to the surface. Similar techniques can be used with coal deposits to extract the natural gas embedded in the coal matrices. Center researchers are looking into ways of making these techniques more efficient and cost effective.

A third technology is the injection of large quantities of carbon dioxide into geological storage areas. This new technology, carbon sequestration, holds the promise of being able to capture and store enough carbon dioxide to significantly reduce its emission to the atmosphere.

Carbon sequestration relies on underground geologic features for stable long-term storage of carbon dioxide. Figure 3 above shows the location of deep subterranean salt water aquifers in Pennsylvania. These aquifers have been identified as potential sites for sequestering carbon dioxide.

These efforts have gained importance not only from environmental concerns but also as a mechanism for reducing the dependence on imports of petroleum. The cost of petroleum has consistently increased over the years.

More recently the cost and supply of petroleum have behaved erratically, driven by factors as diverse as weather, political instability, and monopolistic business practices.

Pennsylvania and, in particular, the Pittsburgh region will play an important role in supplying America's energy needs in the future. Our reserves of coal have been estimated as sufficient for serving our needs for many years to come. We have the know-how to solve the greenhouse problems posed by carbon dioxide emissions through carbon sequestration and other technologies that will maintain coal as a cost effective and clean source of energy. ■

Related information can be found at U.S. Department of Energy, Energy Information Administration, www.eia.doe.gov and U.S. Geological Survey, www.usgs.gov.

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Table 1: Distribution of Nonprofit Organizations by Percentage Change in Compensation, Pittsburgh Region, 2002–2006

(Organizations with total compensation greater than \$100,000 in 2002 only)

	Number	Percent of total
Decline 20% or more	165	17.8%
Decline 10–20%	48	5.2%
Decline 0–10%	90	9.7%
Growth 0–5%	46	5.0%
Growth 5–10%	61	6.6%
Growth 10–20%	152	16.4%
Growth 20–40%	181	19.5%
Growth 40% or more	184	19.8%
Total	927	100.0%

Source: National Center on Charitable Statistics, 2008. Pittsburgh region is 7-county MSA.

Table 2: Nonprofit Total Compensation in the Pittsburgh Region, by National Taxonomy Exempt Entities Category, 2006

Category	Millions of dollars	Percent of total	Cumulative
Health	\$3,576.0	58%	58%
Education	\$1,410.7	23%	81%
Human services: multipurpose, other	\$611.5	10%	91%
Mental health, crisis intervention	\$126.0	2%	93%
Arts, culture and humanities	\$90.5	2%	95%
Diseases, disorders, medical disciplines	\$69.2	1%	96%
Employment, job related	\$48.0	1%	97%
Community improvement, capacity building	\$43.7	1%	98%
Science and technology research institutes, services	\$40.5	1%	99%
Housing, shelter	\$29.8	1%	100%
Total	\$6,199.3	100%	100%

Source: National Center on Charitable Statistics, 2008.

■ ■ ■ continued from page 1

organizations that increased their compensation over the five-year period ending in 2006. Between 2002 and 2006, well over 50 percent of the region’s nonprofit organizations increased their compensation to employees by 10 percent or more. Most of these organizations had compensation gains greater than 20 percent.

Total expenses paid by nonprofit organizations also show steady increases. In inflation-adjusted dollars, total expenses for the region’s nonprofit organizations increased from \$14.9 billion in 2002 to \$16.7 billion in 2006, representing an average annualized growth of 2.8 percent above the rate of inflation. Of this, \$13.2 billion was generated in Allegheny County alone.

The nonprofit sector represents a dynamic source of employment growth in the Pittsburgh region. Its stature has grown over the past two decades, especially in the wake of the collapse of the region’s heavy manufacturing base. It also represents a source of resilience in the current recessionary period. Over previous times, the nonprofit sector has relatively more stable and resilient during economic recessions compared to the commercial sector.

The nonprofit sector represents a source of resilience for the regional economy in the current recessionary period.

Specialization Within the Sector

Nonprofit organizations also cover a wide range of service and activities, from arts and culture to environmental and social missions. Nonetheless, organizations in education (518 organizations), human services (391 organizations), and health (342 organizations) made up nearly 40 percent of the number of regional nonprofit organizations in 2006.

The health and education sectors marked the largest contributions to regional compensation, not surprisingly, since hospitals and universities are among the region’s largest employers. Nonetheless, excluding health

and education, fully \$1.2 billion in regional compensation is generated by the rest of the nonprofit sector.

Economic Impacts

The impact analysis uses UCSUR's Pittsburgh Regional Economic Model, Inc. (REMI; see *PEQ*, September 2005). We also incorporated Internal Revenue Service data on the region's nonprofit sector compiled by the National Center for Charitable Statistics at the Urban Institute in Washington, D.C.

Pittsburgh REMI models the total impact of the nonprofit sector, including the direct employment of the paid workers in nonprofit organizations and the indirect and induced economic activity that these nonprofit enterprises generate. This includes the employment effects generated by the purchases of goods and services by nonprofit organizations, along with the supplemental economic activity generated by the wages and other compensation paid to nonprofit sector workers.

The sum of the nonprofit sector on the regional economy created an employment impact of 299,000 jobs in 2006, with 233,700 of those jobs in Allegheny County alone. Furthermore, the total impact of the nonprofit sector in the Pittsburgh region on Gross Regional Product (GRP) was nearly \$15.9 billion in 2006.

GRP is a measure of local value-added economic production and is considered the best and most comprehensive measure of the economic activity. The nonprofit sector generates roughly 10 percent of the region's output.

In 2006, the nonprofit sector generated a total impact on regional personal income of \$16.9 billion annually. Regional personal income measures income on a place-of-residence basis, that is, where the recipient lives. The components of personal income are labor and proprietors' income, personal contributions to social insurance, the net residence, adjustment, dividends, interest and rent, and transfer payments. In the REMI Model, changes to any of the components of personal income will impact real disposable income and, as a result, the induced effects of personal consumption in the economy.

While the employment impacts are concentrated in the service sector, where most nonprofit organizations are categorized, there

Table 3: Impact of the Nonprofit Sector on the Pittsburgh Regional Economy, 2006

Economic Measure	Allegheny County	10 County SWPA region
Total employment	233,700	299,000
Gross regional product (\$ billions)	\$13.4	\$15.9
Personal income (\$ billions)	\$11.9	\$16.9

Table 4: Employment Impact of the Nonprofit Sector on the Pittsburgh Regional Economy, by Industry, 2006 (thousands)

Select Major Industry Group	Allegheny County	10 County Region
Manufacturing	1.2	1.2
Natural resources, mining, utilities, construction	12.5	17.9
Public administration	7.3	11.7
Retail and wholesale trade	16.0	23.1
Services	186.1	232.8
Transportation, information, finance	10.6	12.5
Total	233.7	299.2

are significant impacts in other areas not generally considered to be part of the nonprofit sector, including trade, transportation, information and finance, and professional and technical service providers.

The nonprofit sector not only has direct and indirect employment impacts across a variety of industries but across a wide range of occupations as well. Some of these are occupations traditionally considered to be nonprofit jobs, such as healthcare or social service workers. Others, however, include occupations associated with the for-profit sector, such as managers, financial analysts, engineers, computer scientists, food servers, and construction and transportation workers.

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Pittsburgh REMI Model Region

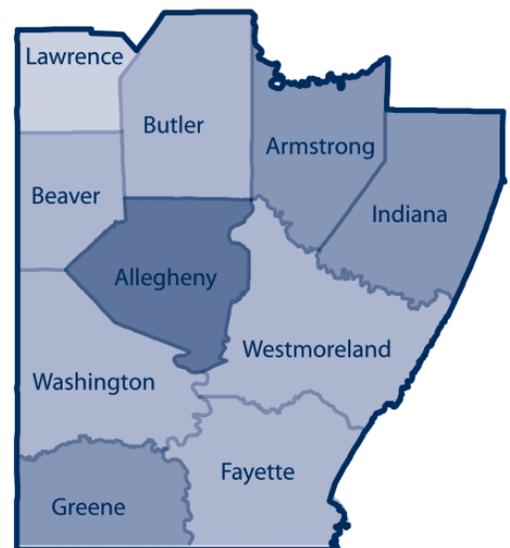


Table 5: Employment Impact of the Nonprofit Sector on the Pittsburgh Regional Economy, by Occupation, 2006 (thousands)

Major Occupation Group	Allegheny County	10-County Region
Arts, entertainment, sports, media	4.7	5.4
Building, grounds, personal care, service	21.3	28.1
Community, social service	10.3	13.8
Computer, mathematics, architecture, engineering	5.8	6.8
Construction, extraction	9.4	13.3
Education, training, library	28.1	32.6
Farm, fish, forestry	0.3	0.4
Food preparation, serving, and related	13.6	18.5
Healthcare	49.2	63.6
Install, maintenance, repair	5.8	7.7
Legal	1.0	1.2
Life, physical, social science	1.9	2.2
Management, business, financial	19.3	23.9
Production	3.9	5.1
Protective service	3.2	4.3
Sales, office, administrative	49.1	62.7
Transportation, material moving	6.9	9.3
Total	233.8	298.9

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Projected Future Role in the Economy

What does this mean for the future? The REMI model provides the estimate of the future economic role of the nonprofit sector on Southwestern Pennsylvania based on a projection of recent trends in the region.

Continuing its recent growth trend, the nonprofit sector in Southwestern Pennsylvania is projected to grow to a total impact of \$18.9 billion in Gross Regional Product to 2011, or 12 percent in inflation-adjusted terms from 2006.

The total employment impact of the nonprofit sector across the region is estimated to

grow to 357,000 jobs in 2011, 19 percent above the 2006 level. Of these, 273,100 jobs are forecasted to be in Allegheny County alone. The sector is expected to exhibit a continued and growing impact on areas of the economy outside traditional nonprofit service sectors and occupations.

Conclusions and Opportunities

The nonprofit sector's role in providing social services and safety net functions is well known. Its importance in the current period, with so many more people facing great hardship, is even more pronounced. What is not as evident is the role it plays in our regional economy.

Not only is the sector large and diverse, but with a combined workforce of more than 150,000 workers and a total impact across Southwestern Pennsylvania reaching nearly 300,000 jobs in 2006, the nonprofit sector's vitality and health are a core part of the region's revitalization and prosperity. The nonprofit sector has exhibited resilience in past recessions that will be critically important in the current economic crisis. The nonprofit sector in the Pittsburgh region provides more than support and services; it plays a vital role in our regional economy. ■

The final reports from this study are available from UCSUR at www.ucsur.pitt.edu.

New Staff Person at UCSUR

UCSUR is pleased to announce that Robert Gradeck has joined our staff. Bob began his position at UCSUR this month and will be working on projects related to the Urban and Regional Analysis program.

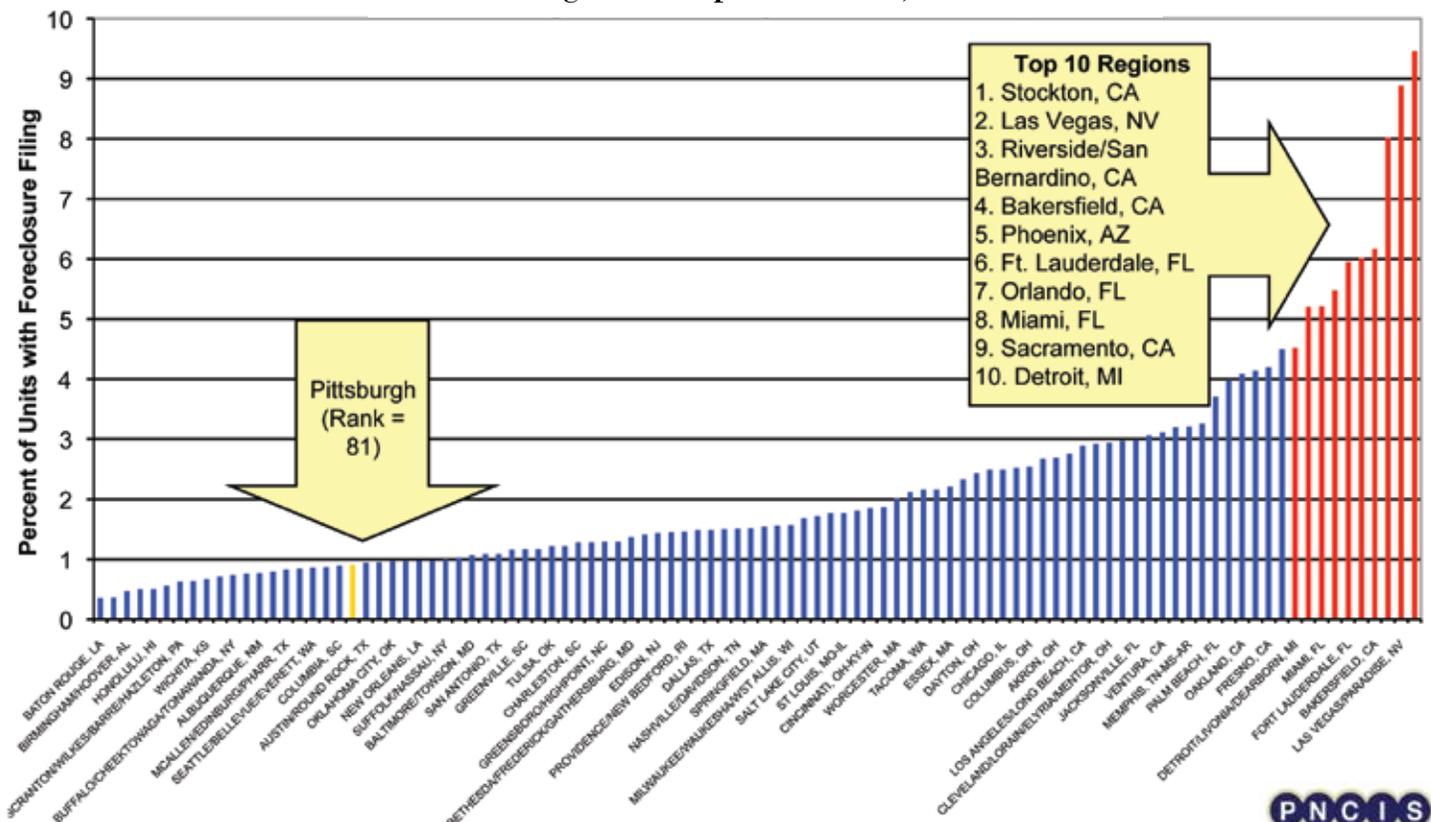
Bob comes to UCSUR after 10 years at the Center for Economic Development at Carnegie Mellon University, where he was the Director of Community Projects. Bob's work at CMU centered on economic development analysis, neighborhood and community information systems, geographical information systems (GIS), and neighborhood planning. While at CMU, Bob developed extensive neighborhood and regional community ties and networks. These networks became the basis of student projects in Pittsburgh neighborhoods and communities that he supervised, including teaching a set of several Systems Synthesis courses at the Heinz College School of Public Policy and Management at CMU.

Bob received his bachelor's degree from Pitt in Urban Studies and his Master of City Planning from Georgia Institute of Technology. Before returning to his hometown of Pittsburgh, Bob worked in Atlanta on its city-neighborhood information system and expanded his GIS skills on other neighborhood mapping and technical assistance economic development projects.

Since his return to Pittsburgh, Bob has been instrumental in the development of the Pittsburgh Neighborhood and Community Information System (PNCIS). In his new position at UCSUR, Bob will continue to manage and expand PNCIS activities to an even broader group of users and organizations. PNCIS offers new trainings twice a month. Bob will continue his trailblazing work with the PNCIS partners Pittsburgh Partnership for Neighborhood Development (PPND), the City of Pittsburgh, and other local and state stakeholders. UCSUR operates PNCIS in agreement with PPND, a leader in community development in the City of Pittsburgh. PPND was instrumental in securing the financial support to build the PNCIS and expand and develop it over the years.

Bob was also instrumental in PNCIS applying for and becoming a partner in the National Neighborhood Indicator Partnership, a collaborative effort by the Urban Institute and local partners to further the development and use of neighborhood-level information systems in local policymaking and community building. PNCIS is currently expanding its analysis of the foreclosure crisis in our region and making important, up-to-date information available to users.

**Percent of Housing Units with a Foreclosure Filing
100 Largest Metropolitan Areas, 2008**



Source: RealtyTrac





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