

PITTSBURGH ECONOMIC QUARTERLY

University Center for Social and Urban Research

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DIVERSITY AMONG PENNSYLVANIA STATE BOARDS

By Ralph Bangs, Leila Lucas, and Joseph Olaore

UCSUR has conducted studies on various measures of diversity in the region and state for over a decade. This report presents findings from a recently completed study of diversity among Pennsylvania state boards, commissions, councils, committees, and authorities (hereafter referred to as boards).

State boards make many important decisions, and having minorities and women adequately represented on these boards is necessary for decision processes to be higher quality and more democratic, fair, and inclusive.

For the purposes of this study, a state board is defined as one where at least half the voting members are Pennsylvania state officials or members appointed by a Pennsylvania state official, and at least one member must be appointed by a Pennsylvania state official. A Pennsylvania state official is defined as a state elected official or the director or secretary of a particular Pennsylvania state department.

To create a list of state boards, the study examined over 2,000 appointments made by the Governor of Pennsylvania between January 2000 and September 2005. After reviewing websites for boards to which the governor had appointed at least one member, 312 boards satisfied the above definition and appeared to currently exist.

Information on board members was obtained from January to June 2006 by calling the secretary or administrative manager for each board and by examining board websites. Although not all state boards provided the information requested, a large number of boards did. Of the 312 state boards, gender and race/ethnicity information was collected on members of 162 boards (52 percent of total), board functions information on 241 boards (77 percent), and board member compensation information on 226 boards (72 percent).

Boards conduct important business for state organizations. The most common functions of state boards

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PITTSBURGH'S STEALTH NUCLEAR INDUSTRY

By Christopher Briem

In recent years, global attention has turned to the nuclear power industry to meet future energy needs. The nuclear power industry is projected to experience significant expansion in coming years as new power plants are planned in the U.S. and around the world.

Expertise in nuclear power has been a core strength of the Pittsburgh region since the industry began after

World War II. The reactor that powered the first nuclear submarine, the USS Nautilus, was designed and built locally by the Bettis Atomic Power Laboratory. The commercial nuclear power industry came online here when the Duquesne Light-managed Shippingport reactor began producing energy in 1959.

New construction activity in the global nuclear power industry is

projected to translate into new economic activity and jobs in coming years.

In January 2007, Westinghouse Electric Corporation announced it had selected Pittsburgh over Charlotte, NC, for a new facility requiring a major expansion of its nuclear power workforce. Westinghouse forms part of a consortium that was recently announced as the winner of a bid to

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DIVERSITY AMONG PENNSYLVANIA STATE BOARDS (CONT.)

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are advising state officials (79.7 percent), developing and recommending policy (58.9 percent), serving as a liaison between the board and other agencies (38.2 percent), providing public education (36.5 percent), exercising financial control over state or federal money (33.6 percent), regulating licensing of professionals (19.1 percent), participating in appointing agency directors or presidents of boards (8.7 percent), contracting for goods and services (7.1 percent), conducting research (4.6 percent), providing advocacy on issues (3.7 percent), and participating in the hiring of state agency staff or boards staff (3.3 percent).

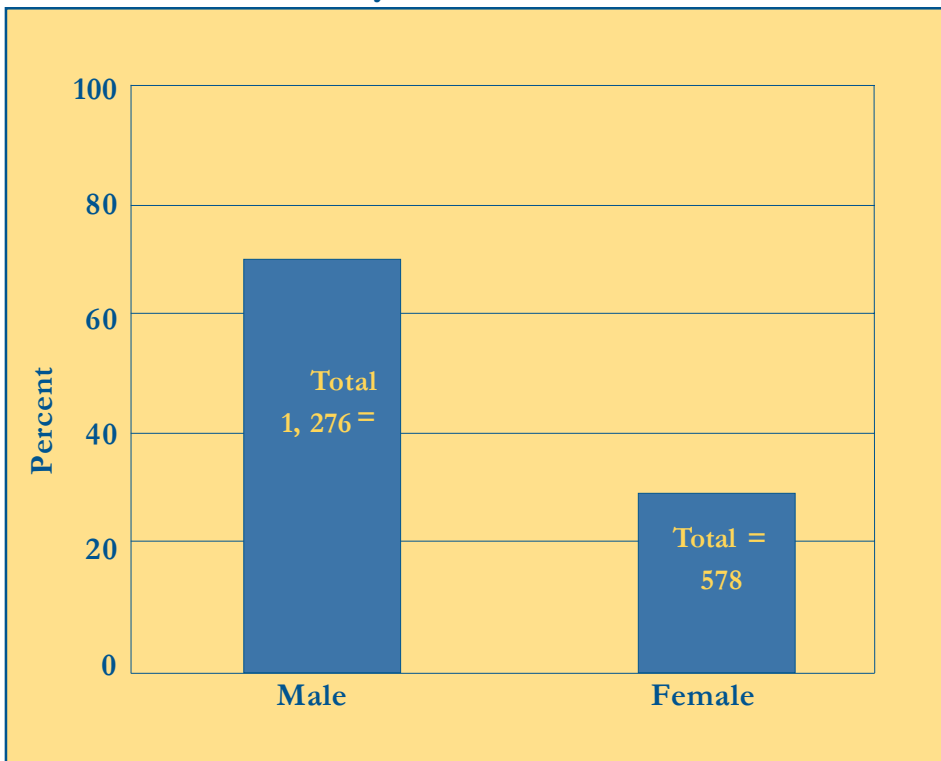
Women and minorities are under-represented on state boards studied for each of the above functions, with a few exceptions. Minorities are under-represented on the boards studied for each of the functions above except advocacy and hiring. Boards involved

in advocacy work are more likely to have women and minority board members than all other board functions. The key findings are:

- Women are under-represented on many state boards since women are 31.2 percent of the members of the boards studied but are 51.7 percent of the state’s population (see Figure 1).
- Nearly three quarters of Pennsylvania state boards had fewer than three female board members, with 19 percent having no women members. Recent research by Alison Konrad and Vicki Kramer in the *Harvard Business Review* (December 2006, p. 22) shows that boards need at least three women members for the women to be taken seriously.

- Just about half (51 percent) of the state boards studied do not have any minority members, and 84 percent have fewer than three minority members. Minorities (Blacks, Asians, Hispanics, Native Americans, and persons of two or more races) are under-represented on many state boards since minorities are 12.4 percent of the board members studied but are 15.9 percent of the state’s population (see Figure 2).
- Just under ten percent of boards provide no compensation for board members, 85 percent provide travel and related expenses, 19 percent provide a per diem (usually \$51-\$100), and 5.3 percent provide a salary (usually in the range of \$10,000 to \$35,000 per year). Women are under-represented on the boards studied with no compensation and boards with any type of payment for members. Minorities are under-represented on the boards studied with all types of compensation except for boards with a per diem of \$51-100 and boards that pay members a salary.

Figure 1. Pennsylvania State Board Members, by Gender, 2006



Given these findings, the report recommends that state officials do the following:

1. Work with local professional and civic organizations, many of whom already prepare screened lists of qualified candidates and in some cases train potential candidates, in order to identify qualified and interested women and persons of color to serve on boards.

2. Create an appointment process that is accessible and transparent to ensure openings are well publicized and that all interested and qualified individuals are able to apply.
3. Pass legislation specifying that membership of any and all publicly appointed bodies in the State of Pennsylvania should represent the population of the Commonwealth in regards to gender and race/ethnicity.
4. Require all state boards to report information on member diversity to the governor’s office or some other office so that complete instead of partial information can be obtained.

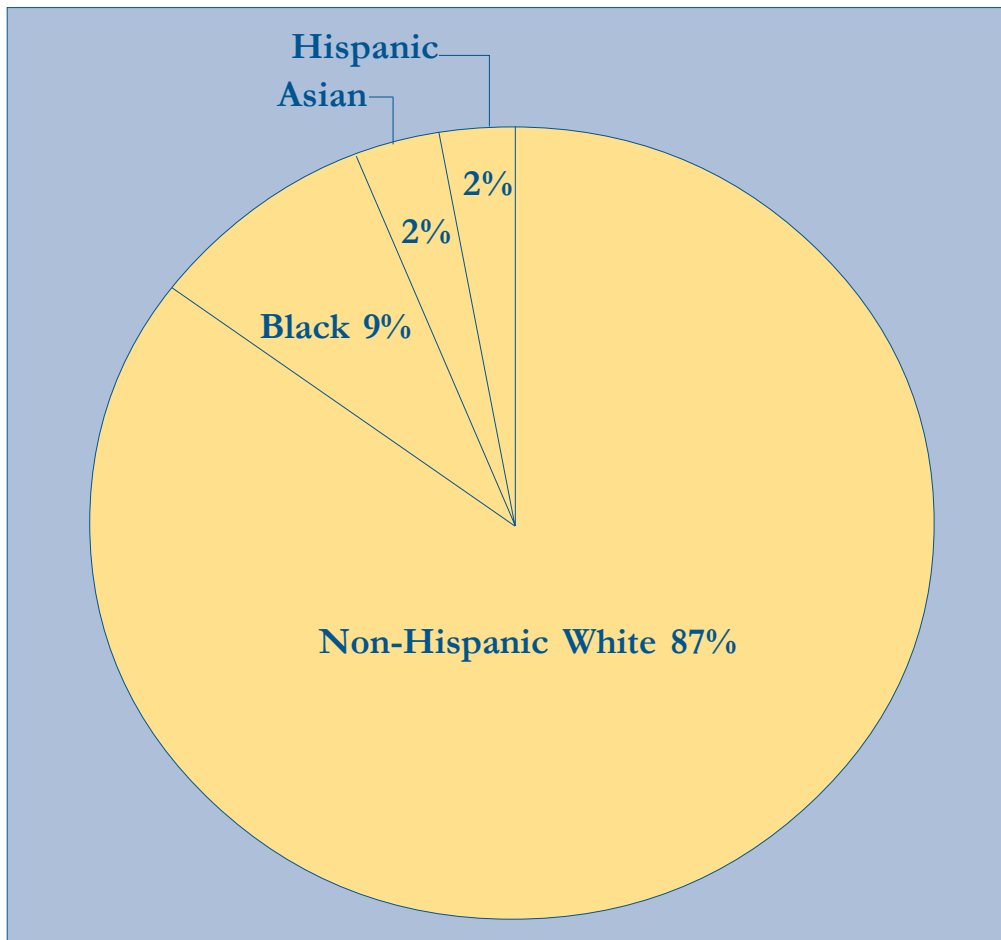
5. Annually update the data in this study to monitor progress in increasing diversity on state boards.
6. Gather information on participation of boards for other important segments of the population, such as the disabled.

Dr. Ralph Bangs is Co-Director of the Urban and Regional Analysis Program at UCSUR and Associate Director of the Center on Race and Social Problems in the School of Social Work at the University of Pittsburgh. Leila Lucas received her MSW from the School of Social Work and MPIA from the Graduate School of Public and International Affairs in 2006. Joseph Olaore received his

Masters in Public Policy and Management from the Graduate School of Public and International Affairs in 2006.

The full report, Diversity Among Pennsylvania State Boards, is available on the UCSUR web site: <http://www.ucsur.pitt.edu/documents/DiversityReport2006.pdf>

Figure 2. Race and Ethnicity of Pennsylvania State Board Members, 2006



Pittsburgh Stealth Nuclear Industry (CONT.)

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build four new nuclear power plants in China. The Nuclear Energy Institute currently lists 19 additional nuclear power plants under consideration in the U.S. alone.

Westinghouse is not the only employer in the Pittsburgh region's nuclear power industry. The Bettis National Laboratory in Monroeville continues to provide research and development for nuclear reactors. Bettis is a major employer of nuclear engineers and technicians.

Electric power utilities have a presence in the local nuclear energy industry with two Beaver Valley units owned by First Energy in operation.

Pittsburgh has one of the highest concentration of nuclear engineers in the nation.

Across Pennsylvania there are nine operating nuclear power plants at five locations, which together provide a third of the electricity produced in the state.

Even before the announced employment expansion by Westinghouse, the Pittsburgh region was one of only a handful of regions around the country with a sizable concentration of workers in the nuclear energy industry and, in particular, of nuclear engineers. Nuclear engineers

**Table 1. Employment in Architecture and Engineering Occupations
Pittsburgh Metropolitan Statistical Area and the United States,
November 2004**

Occupation	Employment		
	Pittsburgh	U.S.	% Total
Architects, except Landscape and Naval	580	96,540	0.6
Landscape Architects	nr	19,130	
Surveyors	310	51,960	0.6
Chemical Engineers	170	28,590	0.6
Civil Engineers	2,070	226,100	0.9
Computer Hardware Engineers	330	79,670	0.4
Electrical Engineers	1,870	147,120	1.3
Electronics Engineers, except Computer	790	133,410	0.6
Environmental Engineers	620	50,120	1.2
Health and Safety Engineers	170	25,910	0.7
Industrial Engineers	2,500	184,900	1.4
Materials Engineers	230	20,940	1.1
Mechanical Engineers	2,000	219,040	0.9
Mining & Geological Engineers, including Mining Safety Engineers	130	5,480	2.4
Nuclear Engineers	1,340	15,870	8.4
Petroleum Engineers	nr	14,790	nr
Total	22,570	2,385,680	0.9%

nr: data not reported

Source: Bureau of Labor Statistics - Occupational Employment Statistics (OES).

**Table 2. Mean Annual Wages, Architecture and Engineering Occupations
Pittsburgh Metropolitan Statistical Area,
November 2004**

Occupation	Mean Annual Wage
Computer Hardware Engineers	\$80,440
Nuclear Engineers	\$79,870
Environmental Engineers	\$75,580
Electronics Engineers, except Computer	\$74,840
Mining and Geological Engineers	\$73,990
Industrial Engineers	\$73,070
Chemical Engineers	\$72,480
Materials Engineers	\$70,190
Electrical Engineers	\$68,860
Petroleum Engineers	\$67,920

Source: Bureau of Labor Statistics – Occupational Employment Statistics (OES).

are just one occupation in the nuclear industry but form the core of a cluster of expertise in the region.

In November 2004, the Bureau of Labor Statistics estimated that there were over 1,300 civilian nuclear engineers employed in the Pittsburgh region. That represented over 8.4 percent of all nuclear engineers in the U.S., one of the highest concentrations in the country and one of the highest concentrations among engineering occupations in Pittsburgh (see Table 1).

Other regions with a specialty in the nuclear industries include: Norfolk, Virginia; Seattle, Washington; Washington, DC; San Diego, California; and Providence, Rhode Island.

Nuclear engineers are also among the highest paid engineering occupations in the Pittsburgh region with an estimated average annual wage of \$79,870 in 2004 (see Table 2). Among all local architecture and engineering occupations, only computer hardware engineers earned more, with an average annual wage of \$80,440.

Because the nuclear power industry experienced minimal growth over recent decades, a large proportion of workers are nearing retirement.

Finding new workers for the nuclear power industry will be a significant challenge because the education pipeline for these workers has declined in recent decades. In 1975, there were over 80 nuclear engineering programs in the U.S. Since then, the numbers have fallen precipitously.

ABET, Inc., formerly known as the Accreditation Board for Engineering and Technology, currently lists only 17 university programs with accredited nuclear engineering or radiological programs or options in the U.S. The program closest to the Pittsburgh region is located at Penn State University.

Even without a significant increase in employment, replacement of workers is expected to generate new hiring across the industry. With expansion, the Pittsburgh region may increase its concentration in the nuclear power cluster.

Announcing UCSUR's Qualitative Data Analysis Program

By Stuart Shulman

Founded in the fall of 2005, the Qualitative Data Analysis Program (QDAP) is the newest program at the University Center for Social and Urban Research. QDAP offers unique services to researchers working with qualitative data. Original material for content analysis might include in-depth interviews, open-ended survey answers, field notes, transcripts from focus groups or Web logs (blogs), e-mails, Web site content, results from database searches (such as LexisNexis™), congressional testimony or other historical texts, and a host of other unstructured but digitized text data sets.

QDAP employs University of Pittsburgh students and UCSUR professional staff trained in using ATLAS.ti (<http://www.atlasti.com/>). ATLAS.ti is a PC-based workbench that supports project management, enables multiple coders to collaborate on a single project, and generates output that facilitates the analysis process.

QDAP is guiding the creation of tools available online to ATLAS.ti users to improve the accuracy, reliability, and validity of their coding project. QDAP personnel work closely with principal investigators to determine the coding strategy that can identify all the information needed to reach solid evidence-based inferences.

Starting with the raw data and a principal investigator's analytical vision, QDAP collaborates with a research team to craft a plan with a tailored methodology designed to code the text for key concepts and relationships. Working with qualitative data demands a lot of time. Employing QDAP's experienced coders to draw out the major themes of the data set maximizes project efficiency.

QDAP provides professional support for key project management tasks such as:

- Data preparation and cleaning
- Transcription
- Data management and storage
- Data distribution and unification
- Code development and testing
- Inter-rater reliability reporting and mismatch analysis
- Results analysis and expression

QDAP offers a robust mix of existing and experimental tools, careful iterative techniques, and energetic, participatory trainings. Our goal is to work with researchers to generate studies with significant and accurately reported inter-rater agreement on large numbers of highly valid observations.

QDAP's carefully trained coders and project managers, in combination with UCSUR's professional staff, will lend objectivity and external validity to qualitative research projects. The

entire code development and coding process is carefully documented for reporting purposes.

Periodically, QDAP holds Atlas.ti training sessions for researchers working with qualitative data. Researchers may bring their own data to these hands-on trainings that may cover project set-up and coding or analysis and reporting of coded data. These collaborative trainings allow researchers from a variety of disciplines to discover the many data analysis tools in Atlas.ti.

Dr. Stuart W. Shulman is Director of the Sara Fine Institute at the School of Information Sciences and Director of the Qualitative Data Analysis Program at UCSUR.

For more information, please visit the QDAP Web site at: <http://www.qdap.pitt.edu/>

Recent QDAP Workshop

In concert with the Pittsburgh Mind-Body Center, the School of Nursing, the Advanced Center for Interventions and Services Research for Late-Life Mood Disorders, and the Center for Minority Health in the Graduate School of Public Health, QDAP hosted a workshop by Dr. Janice Morse on March 28, 2007. Dr. Morse is Professor and Barnes Presidential Endowed Chair at the College of Nursing, University of Utah. With doctorates in both nursing and anthropology, she conducts research funded by NIH and CIHR, into suffering and comforting, as well as developing qualitative research methods. She is editor of the journal *Qualitative Health Research* (Sage), an interdisciplinary journal addressing qualitative methods and health. She is the recipient of many awards, including the Episteme Award (Sigma Theta Tau), and has authored more than 300 articles and 14 books on qualitative inquiry. Dr. Morse's workshop on the science of qualitative research, "Writing Qualitatively," reviewed the challenges of writing and reviewing qualitative proposals, as well as the process and pitfalls of publishing qualitative research.

PITTSBURGH NEIGHBORHOOD AND COMMUNITY INFORMATION SYSTEM UPDATE

By Sabina Deitrick

The September 2006 *PEQ* announced the launching of the new Pittsburgh Neighborhood and Community Information System (PNCIS) at UCSUR. This is an update of the use and progress of the system.

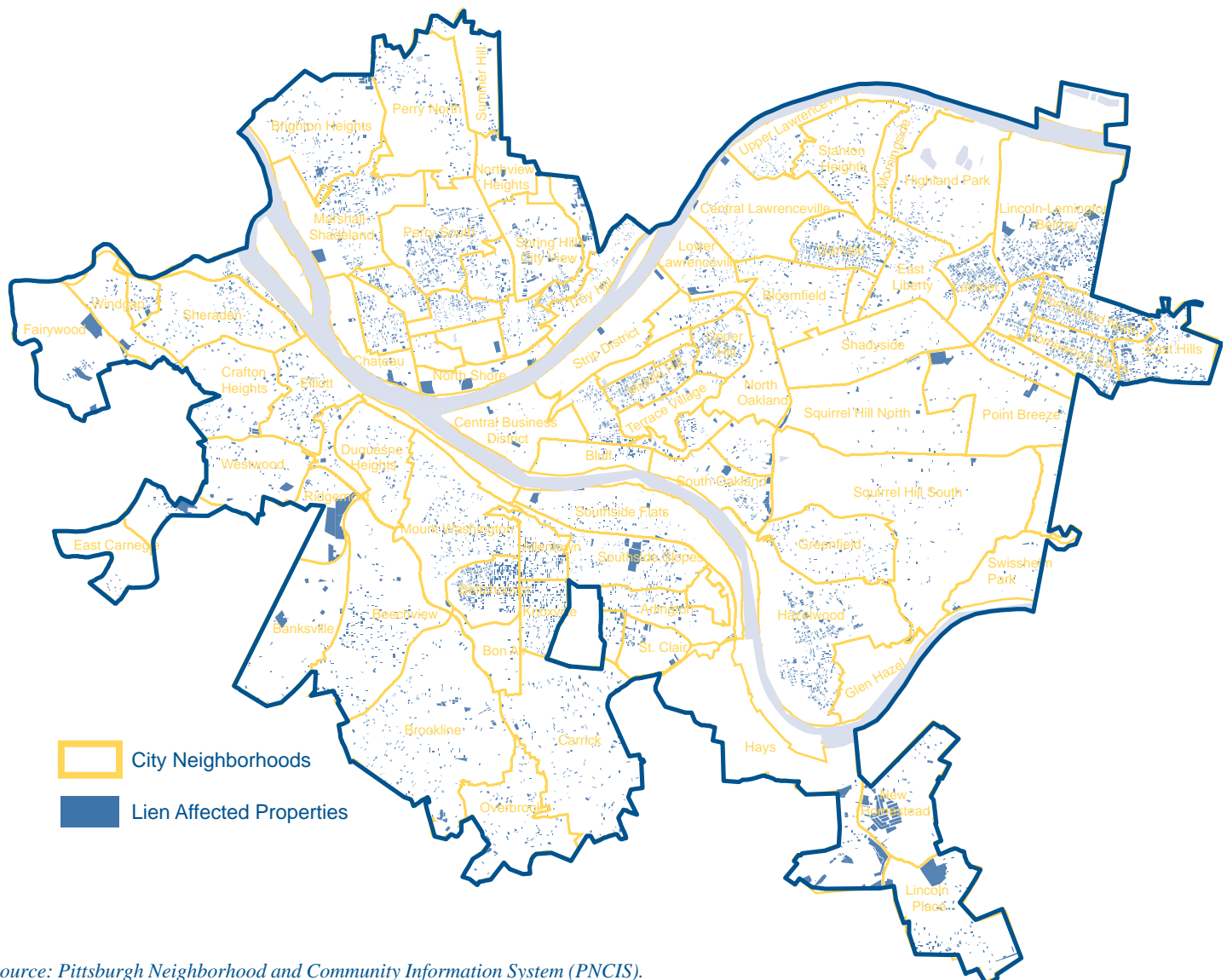
The PNCIS integrates parcel-based data with other indicators to assess community conditions and provides it to local stakeholders. The PNCIS includes over 50 indicators from multiple data sources, including

administrative data from the City of Pittsburgh. The City of Pittsburgh, Pittsburgh Partnership for Neighborhood Development, the University of Pittsburgh, and Carnegie Mellon University are the key partners in the PNCIS.

Over the past two years, the PNCIS has been presented to over 500 people at numerous meetings and conferences. To date, over 60 people in the public and nonprofit sectors have been trained to use the PNCIS, and

the site is registering over 100 page views per week. Recent use of the PNCIS has included: (1) reducing tax lien properties in Pittsburgh (see map); (2) neighborhood health index with the City of Pittsburgh Department of City Planning; (3) safe school zones with the Pittsburgh Public Schools; and (4) graffiti prevention with the Pennsylvania Resources Council. *PEQ* will continue updates and information using the PNCIS in future issues.

Lien Affected Properties in the City of Pittsburgh



Source: Pittsburgh Neighborhood and Community Information System (PNCIS).

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| Allegheny County Economic Trends (12/05) | Diversity Among Elected Officials in the Pittsburgh Region in 2002 (2/03) |
| Allegheny County Housing and Socio-Demographic Trends (12/05) | Black Papers on African American Health in Allegheny County (9/02) |
| Disabilities in Southwestern Pennsylvania (10/04) | African American and Women Board Members in the Pittsburgh Region (11/01) |
| Women's Benchmarks Reports (4/04) | The State of the Environment in Allegheny County: Land, Water and Air (3/01) |
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