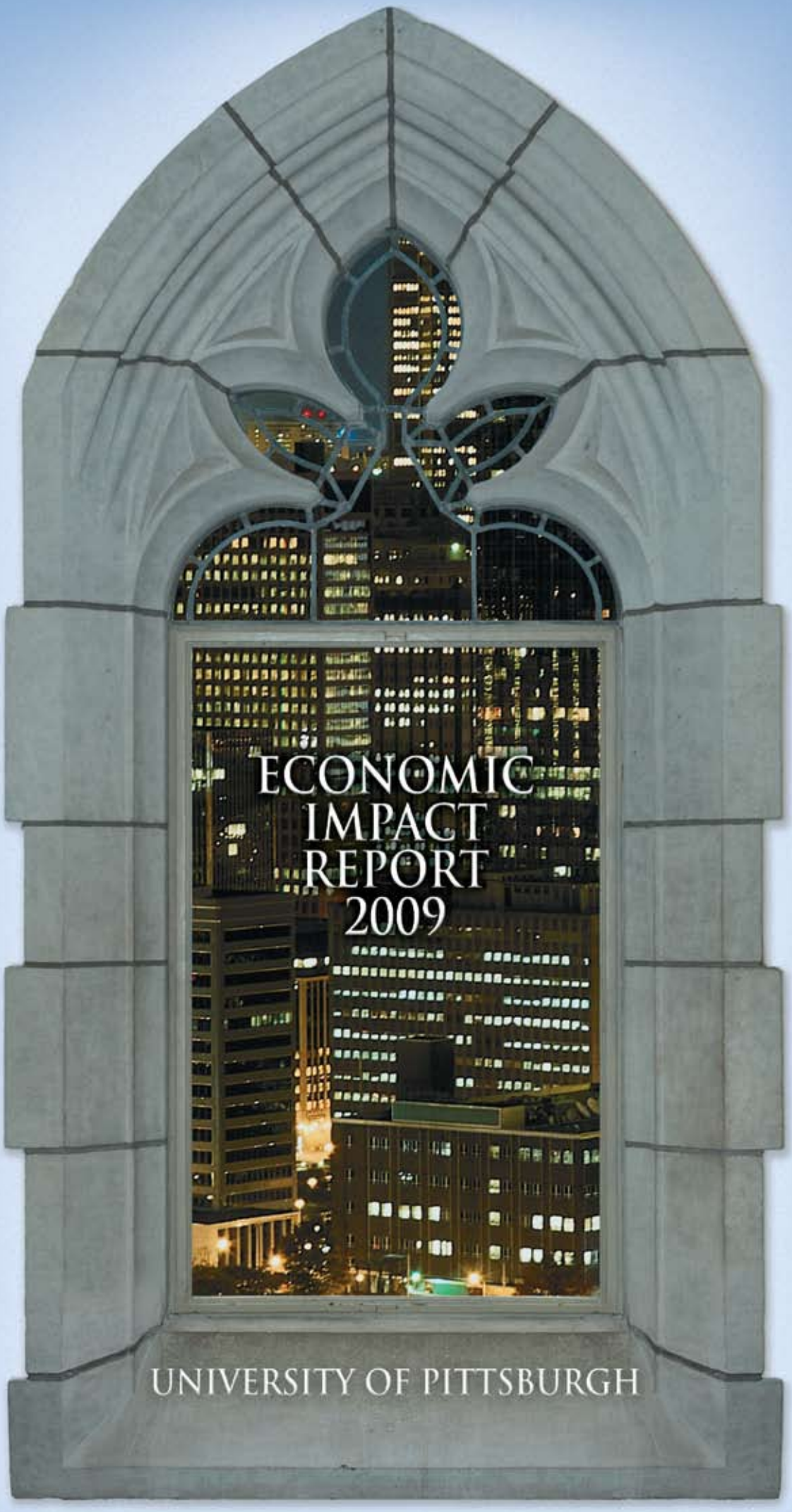

ECONOMIC
IMPACT
REPORT
2009
UNIVERSITY OF PITTSBURGH

UNIVERSITY OF PITTSBURGH
ANNUAL IMPACT ON THE LOCAL ECONOMY

$5.6 billion in earnings by nearly **74,800 Pitt alumni** residing in Allegheny County

$1.74 billion in total University-related spending

$1.3 billion in personal income generated from nearly **33,800 Pitt-supported jobs**

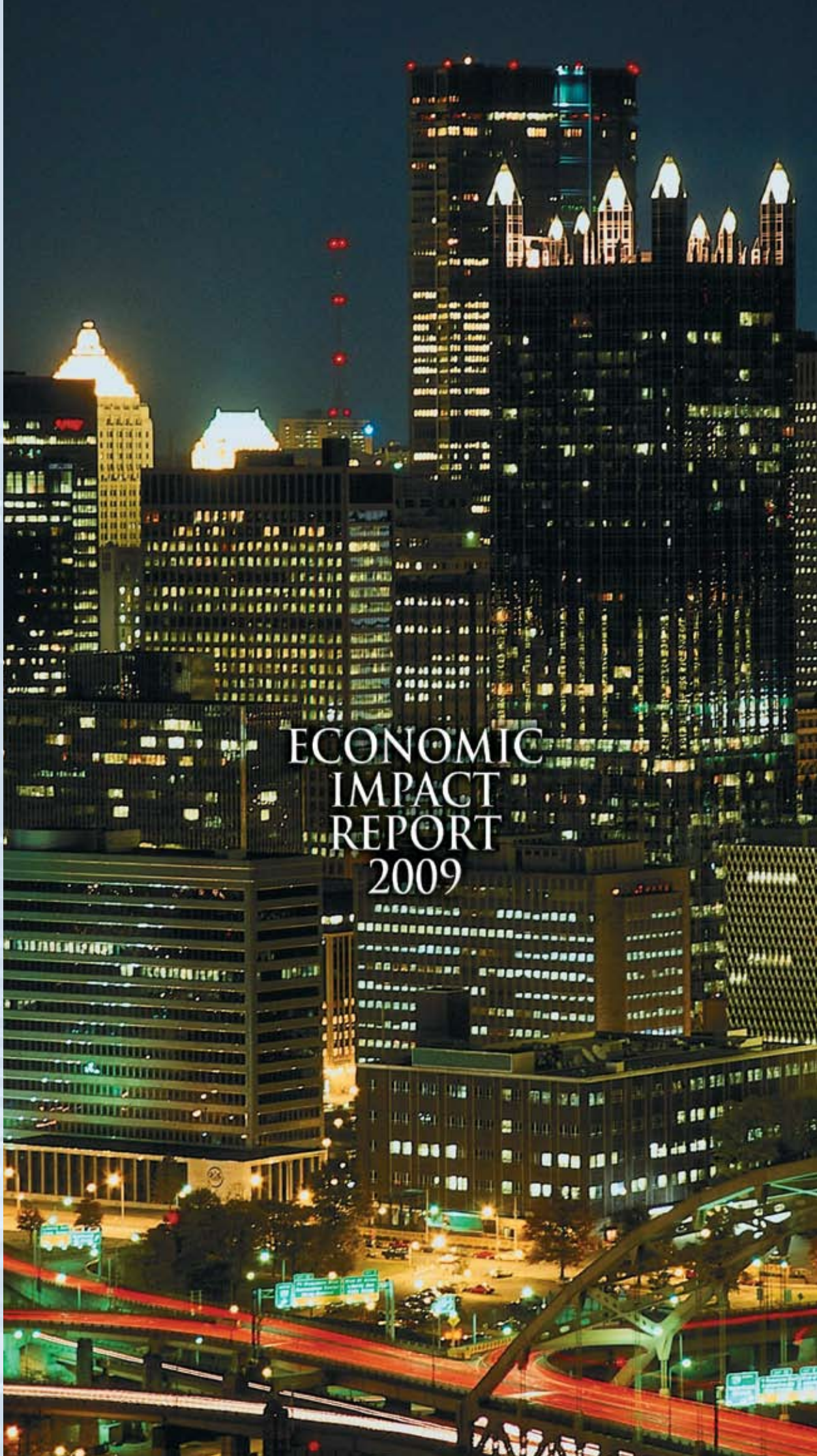
$642 million in sponsored research, supporting more than **23,100 jobs**

$151.7 million in direct and induced expenditures associated with people visiting Pitt

$145.2 million to communities, including sales, wage, and real estate taxes

$140.7 million average annual investment on construction from FY 2006 through FY 2008, generating more than **1,300 jobs** in construction and related industries

On the cover:
A window in the University Honors College on the 36th floor of the Cathedral of Learning, which was dedicated in 1937



ECONOMIC IMPACT REPORT 2009

ENERGIZING AND ADVANCING REGIONAL DEVELOPMENT

For more than two centuries, the University of Pittsburgh has helped to advance this region. The University and its partners—particularly its principal partner, the University of Pittsburgh Medical Center—now generate billions of dollars annually in economic activity in the Pittsburgh region.

A Message from the Chancellor

The Pittsburgh region has transformed itself into a diversified economy largely built on a foundation consisting of world-class universities and health care providers, major financial services companies, research-driven businesses, and advanced manufacturing concerns—transforming Pittsburgh from a center of industrial might to a "knowledge" city. In today's highly challenged economy, Pittsburgh's companion strengths in education and health care have been identified as the key to its relative economic stability and patterns of steady growth.

For more than two centuries, the University of Pittsburgh has helped to advance this region. The University and its partners—particularly its principal partner, the University of Pittsburgh Medical Center—now generate billions of dollars annually in economic activity in the Pittsburgh region. Pitt's ambitious building and facilities development plan has created additional jobs, even as it has added to the physical landscape of the community.

As one of the country's leading research centers, the University imports substantial research funding—**$642 million** during fiscal year 2008. **These expenditures alone support more than 23,100 local jobs and represent a return of more than $3.60 for every dollar of Pitt's state appropriation.** The beneficial impact of those funds, as they move through the economy, extends far beyond those actually employed at Pitt—from the non-University employees who build the research facilities, to the private companies that supply them, to the businesses that meet the needs of the people who work there. Pitt also continues to expand its technology transfer efforts to ensure that research translates into new products, new companies, and new jobs. Dozens of small technology companies with Pitt connections have emerged, and as they grow, more will follow.

Of course, meeting the educational needs of our students remains the University's most fundamental responsibility. Through our nationally ranked educational programs, we are developing the next generation of leaders and professionals. One of our key goals is to continue paving the way for Pennsylvania's best and brightest young people to stay, and to prosper, in their home state.

More than two centuries ago, Benjamin Franklin said, "An investment in knowledge always pays the best interest." That wisdom has proved to be timeless. The University of Pittsburgh is playing a key role in supporting the Pittsburgh of today, even while it continues building the foundations for the knowledge city of tomorrow.

Mark A. Nordenberg

(Left to right) Pitt Chancellor Mark Nordenberg with Allegheny County Chief Executive Dan Onorato and City of Pittsburgh Mayor Luke Ravenstahl

SERVING AS A VITAL ECONOMIC ENGINE FOR THE REGION

The University of Pittsburgh's daily operations provide ongoing financial benefits to the region's economy. Though its primary missions are education, research, and community service, an institution as vast as Pitt also is central to the fiscal health and well-being of the larger community in which it operates. The University significantly impacts the regional economy through local expenditures, local government revenues, and the employment and personal income of residents.

Spending Supports the Local Economy

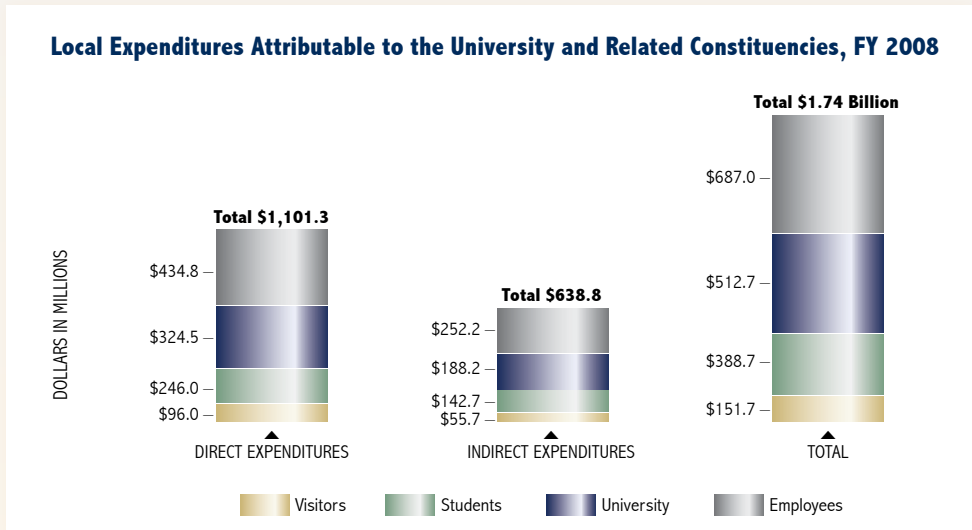
Local economy expenditures by the University and related constituencies totaled $1.74 billion in fiscal year (FY) 2008. The University of Pittsburgh affected business volume in Allegheny County and the local region in two ways:

- Direct expenditures for goods and services by the University, its employees, students, and visitors. This supported local businesses, which in turn employed local individuals to sell the goods and provide the services that University constituencies needed.
- Induced or indirect spending within Allegheny County. The businesses and individuals that received direct expenditures respent this money within the local region, thus creating the need for even more jobs. **Every dollar spent by the University community to buy goods and services is estimated to generate an additional 58 cents in spending in Allegheny County.**

Overall, Pitt and its constituencies spent **$1.1 billion** for the direct purchase of goods and services in the local economy in FY 2008. Induced expenditures totaled nearly **$639 million**, resulting in total expenditures of **$1.74 billion**.

The University

During FY 2008, the University directly spent more than **$324 million** for goods and services from local businesses. With additional induced expenditures of more than **$188 million**, the total expenditures were nearly **$513 million** locally.



Employees

Pitt employed **11,335** full- and part-time faculty and staff at its Pittsburgh campus during FY 2008. That payroll, excluding fringe benefits, was nearly **$679 million**. The faculty and staff spent nearly **$435 million** in FY 2008 on local direct purchases for goods and services and rental payments. The addition of induced expenditures of more than **$252 million** resulted in total expenditures of **$687 million.**

Students

The 2007–08 academic year fall enrollment at the Pittsburgh campus was **27,020** students. These students spent **$246 million** for goods, services, and rental payments in Allegheny County during FY 2008. Induced expenditures of nearly **$143 million** brought the total expenditures to nearly **$389 million**.

Visitors

The University attracted thousands of visitors from outside Allegheny County in FY 2008 who brought "new" money through their spending. Visitors came to the campus as prospective students, to see family or friends, for business or educational purposes, to attend athletic events, and to see theater performances and other cultural events. Visitor spending in direct expenditures in Allegheny County associated with all groups was **$96 million** in FY 2008. Adding in induced expenditures of nearly **$56 million**, total expenditures came to nearly **$152 million**.

Strengthening Local Government through Tax Revenues

Local government revenues attributable to the presence of the University of Pittsburgh totaled $145.2 million in FY 2008. The county, municipal governments, and public school districts in Allegheny County all received tax revenues that were University related.

For example, University employees pay real estate taxes, as do the businesses that supply Pitt with goods and services. An overall rate of taxation can be estimated and attributed to the more than **6,500** University employees who are homeowners paying property taxes to Allegheny County.

The University's employees also pay wage taxes on earned income to local governments and school districts. Further, taxes paid to the state and federal governments on sales, income, tobacco, and fuel were redistributed in part to municipal and county governmental units, frequently on a per capita basis.

Through its local spending as well as direct and indirect support of jobs, the presence of the University stabilizes and strengthens the local tax base. Without Pitt, there would be fewer jobs and less spending in the area.

Revenues Collected by Local Governments and Attributable to the Presence of the University in Allegheny County and the City of Pittsburgh, FY 2008

Tax Sources	Amount
Real Estate Taxes	$32,000,000
Sales Taxes	13,300,000
Public School/Per Capita Taxes	73,900,000
Wage and EMS Taxes	22,700,000
Miscellaneous Fees and Taxes	3,300,000
Total	**$145,200,000**

Sustaining Employment and Personal Income

Both directly and indirectly, the University of Pittsburgh supported 33,795 jobs in Allegheny County, generating $1.3 billion in personal income. As previously noted, the University employed 11,335 full- and part-time faculty and staff at the Pittsburgh campus during FY 2008. Personal income associated with employees who were local residents totaled more than **$582 million**.

Darragh Street Apartments

Spending by members of the University community creates approximately **11 jobs for each $1 million** spent. With $1.74 billion in direct and induced expenditures, **19,140** indirect local jobs were created, generating **$587 million** in income for these workers.

The University also spent, based on a three-year average, approximately **$140.7 million** on construction, generating more than **1,300 jobs** and more than **$51 million** in personal income from construction and related industries. University construction is ongoing and diverse and includes the following:

- Completed in FY 2008: Renovations to convert Ruskin Hall from medical student housing into apartment-style housing for undergraduate students, a $19.4 million project; Litchfield Towers food service renovation to upgrade the entire dining room and seating areas, a $12.6 million project; and new residence housing for medical school students (Darragh Street Apartments), an $18.2 million project
- Current projects: Falk Laboratory School addition/renovations include a new 38,000-square-foot academic wing that will contain 14 classrooms for Grades K–8, computer classroom, art room, library, cafeteria, science room, and support areas, a $21.1 million project; University Club renovations to convert the formerly privately owned University Club into a conference center, offices, and new housing for Family House—a nonprofit organization that provides temporary housing for medical patients and their families who must travel to Pittsburgh for specialized medical treatment, a $20.2 million project; and Benedum Hall upgrade and deferred maintenance, which includes upgrading the building's outdated utilities infrastructure and ventilation systems to meet current standards for research and teaching facilities, a $64.3 million project

The population of the University community—and the workers who support that community—also create a need for additional employees in governmental and service facilities, such as schools and day care facilities. Thus, more than **2,000 jobs** in the local government and public schools can be attributed to the presence of the University. Personal income associated with these jobs totaled nearly **$89 million**.

RESEARCH GENERATES FAR-REACHING ECONOMIC IMPACT

As a major academic research center in the United States, the University of Pittsburgh annually brings hundreds of millions of dollars to the local area in government- and industry-sponsored research and projects. The University was awarded **$642 million** in sponsored research funding in FY 2008, a nearly 15 percent increase over FY 2004. The breadth of Pitt's research mission is vast and impressive.

In FY 2008, the University of Pittsburgh and its affiliates received $447 million in National Institutes of Health (NIH) funding, ranking Pitt fifth in the nation, according to preliminary data. The NIH top 10 consists of Harvard University; Johns Hopkins University; the University of Pennsylvania; the University of California, San Francisco; the University of Pittsburgh; the University of Michigan; the University of Washington; the University of California, Los Angeles; Duke University; and Washington University in St. Louis. Pitt and its clinical partner, the University of Pittsburgh Medical Center, maintain high levels of biomedical expertise and research activity in cancer, transplantation and immunology, cardiology and vascular biology, imaging technology, minimally invasive surgical procedures, bioengineering, regenerative medicine, drug and vaccine development, biomedical informatics, genomics and proteomics, basic and clinical neuroscience, structural biology, and computational biology.

The University is among the top 10 U.S. university recipients of federal science and engineering research and development obligations, according to the National Science Foundation, based on FY 2006 figures. Joining Pitt in the top 10 are Johns Hopkins University; the University of Washington; the University of Michigan; the University of Pennsylvania; the University of California, Los Angeles; Duke University; Columbia University; Stanford University; and the University of California, San Francisco. Faculty members in the School of Arts and Sciences, John A. Swanson School of Engineering, and other schools consistently receive funding from both governmental and private sources.

A substantial portion of Pitt's research funding comes through the schools of the health sciences, particularly the School of Medicine and the Graduate School of Public Health. Academic medical centers conduct nearly one-third of all health-related research in the United States. Pitt's emergence as one of the country's most prominent medical research centers—and Western Pennsylvania's only academic medical center—is the result of a dedicated effort to recruit some of the world's leading scientists.

The University of Pittsburgh invests between $1 million and $3 million in the recruiting package of a medical researcher. This scientist is expected to receive federal and nonfederal funds in support of his or her research of $250,000 to $1 million or more per year. With a projected career of 30 years, this yields a career-long return for that one scientist of $7.5 million to $30 million in research support.

The University's research operations make tangible and quantifiable economic contributions. Along with creating jobs for research staff and support personnel, Pitt scientists are contributing to new product development and technology commercialization. Knowledge and technology transfers have helped to start commercial ventures that promote regional entrepreneurship, economic development, and job creation.

Sponsored Research Funding and Jobs Supported, FY 2004–08

Federal sponsors include the National Institutes of Health; the National Science Foundation; NASA; and the Departments of Energy, Education, the Army, the Navy, and the Air Force. Other sponsors include foreign governments, private companies and foundations, and other agencies and institutions.

Research Creates High-Quality Jobs

The immediate economic impact of research funding is jobs. A policy brief by the American Association of State Colleges and Universities cites the Bureau of Economic Analysis of the U.S. Department of Commerce as estimating that **36 jobs are generated for every $1 million in research and development expenditures.**

For example, in FY 2008, the University received **$642 million** for sponsored research and other sponsored programs, supporting more than **23,100 jobs**. These jobs include not only direct employment by the University of research professionals but also indirect jobs created for supply and equipment vendors, contractors and laborers for the construction and renovation of laboratory facilities, administrators and managers who support the research infrastructure, and jobs created in the community by the disposable income of the scientific workforce.

As the University continues to attract, and consequently spend, increasingly higher levels of research dollars, the number of jobs supported continues to grow. University research expenditures grew by $83 million between FY 2004 and FY 2008. As a result, the University supported nearly 3,000 more jobs in FY 2008 than in FY 2004. With continued high levels of research funding and consequent expenditures, the University will remain a source of support for thousands of local jobs based on its research funding alone.

Technology Transfer Brings Research into Reality

The University of Pittsburgh, through its Office of Technology Management (OTM), continues to make significant progress in its commitment to develop and commercialize innovations that emerge from Pitt's immense and diverse research endeavors. Such commercialization activities not only have begun to create a more "academically entrepreneurial" culture on campus, they also have contributed much to the Pittsburgh region's economy and its prospects for technology-driven prosperity.

Pitt faculty, staff, and students submitted **244 invention disclosures** to OTM for commercial consideration in FY 2008—maintaining the momentum achieved the previous year, when disclosures climbed almost 50 percent. Invention disclosures represent the first official step in the commercialization process at the University, as faculty, staff, and students alert the University to innovations emerging from their research that may have commercial potential. More than **400** faculty, staff, and students were connected to those disclosures.

In 2008, OTM executed **58 technology licenses and option agreements** for Pitt technologies with outside companies, of which three translated into new start-up companies. From FY 2003 to FY 2008, Pitt technologies have formed the basis of **42 start-up companies**.

Collaborative Research Efforts

In addition to its own research activities, the University also participates in several collaborative research efforts with other universities, governmental entities, and private companies, such as the following:

Pittsburgh Life Sciences Greenhouse

The University is a founding partner of the Pittsburgh Life Sciences Greenhouse (PLSG), a public/private partnership that also includes Carnegie Mellon University, the University of Pittsburgh Medical Center, and the Commonwealth of Pennsylvania.

PLSG invests in and supports the growth of biosciences companies in Southwestern Pennsylvania. Its investment and business growth programs increase the linkage between research, technology, and commercialization; nurture and develop entrepreneurial biosciences enterprises; grow the region's talent pool in the life sciences; and help biosciences firms to locate, expand, or start up in the greater Pittsburgh region.

Cited by the Battelle Technology Partnership Practice as one of only two university/industry funding programs focused solely on the life sciences in the United States, PLSG has become a national model for state funding of early stage risk capital in the life sciences.

The Technology Collaborative

The University also is a partner in The Technology Collaborative (TTC), an economic development organization committed to creating a growing, collaborative group of companies in Pennsylvania that are developing various advanced agile robotics, semiconductor, networking, and computing technologies, systems, and products for a wide range of defense, commercial, and consumer markets. To date, there are more than 65 TTC member companies.

Quality of Life Technology Center

The University of Pittsburgh and Carnegie Mellon University were awarded a five-year, $15 million grant from the National Science Foundation to establish the Quality of Life Technology Center (QoLT), an engineering research center that will develop technologies to help older adults and people with disabilities live independently and productively.

QoLT researchers are creating a scientific and engineering knowledge base enabling the development of intelligent systems that coexist and work with people. These systems could include devices that a person carries or wears, a mobile system that a person rides or that accompanies a person, or an environment equipped with instruments to aid people. It is expected that this work will be a catalyst for start-up companies that will bring jobs to the region and further strengthen Pittsburgh's reputation as a center for the development and commercialization of health-related technology.

CWP Inc.

A consortium of three universities—the University of Pittsburgh, Carnegie Mellon University, and West Virginia University—has formed a partnership called CWP Inc., which will receive up to $26 million in funding over two years to develop clean and efficient technologies for the use of fossil fuels. The results of its work could reduce regional as well as national dependence on foreign oil.

The partnership will receive the funding through a subcontract with RDS Inc., an on-site contractor at the National Energy Technology Laboratory (NETL). With facilities in five states, including Pennsylvania and West Virginia, NETL is the national laboratory for the U.S. Department of Energy's Office of Fossil Energy. More than 75 scientists with student researchers at the three universities will work with more than 150 NETL scientists and researchers to address key areas of fossil fuel research.

Researchers are positioned to have a significant and positive impact on the economy, the environment, and national security while further establishing the Pittsburgh region as a leader in energy research.

OTHER KEY AREAS OF ECONOMIC IMPACT

On average, ***73 percent*** *of Pitt graduates live and work in Pennsylvania,* ***42 percent*** *of them in the Pittsburgh area.*

First and Foremost: The University's Educational Mission

Meeting students' educational needs remains the University's most fundamental responsibility. As Pittsburgh has moved from a manufacturing-based to a knowledge-based economy, education—with its many intellectual and cultural benefits—has been and remains crucial to the economic development of the region. At the heart of the region's education sector is the University of Pittsburgh.

The Pittsburgh campus offers 309 different degree programs: 100 baccalaureate, 127 master's, 78 doctoral, and four first professional degree programs through the Schools of Arts and Sciences, Education, Law, Social Work, Information Sciences, Dental Medicine, Nursing, Pharmacy, Medicine, and Health and Rehabilitation Sciences, as well as the College of General Studies, Graduate School of Public and International Affairs, Graduate School of Public Health, Joseph M. Katz Graduate School of Business/College of Business Administration, and John A. Swanson School of Engineering.

Of the more than 27,000 students enrolled at the Pittsburgh campus for the fall term of the 2007–08 academic year, 36 percent were graduate and 64 percent were undergraduate, 74 percent were Pennsylvania residents, and 7 percent were international students from 113 different countries.

In 2008, the Pittsburgh campus conferred 6,945 degrees: 3,913 baccalaureate, 2,006 master's, 463 doctoral, 256 law, 72 dental medicine, 96 pharmacy, and 139 medical. In addition to earning degrees in the professional programs, students graduate with degrees in the humanities, social sciences, and natural sciences.

William Pitt Union

On average, 73 percent of Pitt graduates live and work in Pennsylvania, 42 percent of them in the Pittsburgh area. **Of the University's more than 255,100 living alumni, nearly 151,000 live in Pennsylvania, with nearly 74,800 in Allegheny County.**

In 2007, the average earnings of full-time, year-round workers more than 24 years old with a high school diploma were $39,000—compared to $68,000 for workers with a bachelor's degree. More specifically, it is estimated that Pitt alumni living in Allegheny County earned **$5.6 billion** in 2007 compared to approximately $2.8 billion, the amount they would have earned without their Pitt degrees. The additional $2.8 billion in earnings represent not only personal material benefits to individuals but also higher tax payments to federal, state, and local governments.

Pitt and UPMC: Partnering for Regional Health and Prosperity

The University of Pittsburgh Medical Center (UPMC) is one of the nation's largest integrated health care delivery systems and the University's principal partner. Their combined mission is to train tomorrow's health care specialists and biomedical scientists, engage in groundbreaking research that will advance understanding of the causes and treatments of disease, and participate in the delivery of outstanding patient care.

With its hospitals, an extensive network of physicians, an insurance division, and a broad scope of diversified capabilities, UPMC represents a substantial economic engine for the region.

While UPMC has gained national and international prominence, its primary commitment is to the communities of Western Pennsylvania. With 20 tertiary, specialty, and community hospitals; more than 400 outpatient sites and doctors' offices; and retirement and long-term care facilities, UPMC is unquestionably the predominant health care provider in the region. As the area's only academic medical center, UPMC is a hub for specialized services.

Exclusive of the University of Pittsburgh, UPMC has an estimated overall economic impact of $14 billion on the regional economy. With annual revenues of $7 billion—and a workforce of about 50,000 people—UPMC is the largest employer in the region. It generates an additional 100,000 regional jobs across a wide range of sectors, including manufacturing, wholesale, retail, food service, government, and education.

The region's largest concentration of new construction can be attributed directly to UPMC. Each year, this construction activity averages about $250 million and supports 2,000 construction-related jobs.

As a regional hub of medicine, education, and research, UPMC attracts patients, students, and scientific investment. Each dollar UPMC spends generates an additional $1.25 in the region.

The majority of UPMC's spending benefits people and businesses rooted in Western Pennsylvania. It directs nearly $2 billion to purchase goods and services, much of it to local companies. Last year, UPMC awarded $92 million in local purchasing contracts to minority- and women-owned businesses.

UPMC contributes to the good health of the region by giving back to the community nearly $500 million each year in services, charitable contributions, uncompensated care, and support for research and education.

UPMC Sports Performance Complex

BUILDING OUR FUTURE TOGETHER

As a world-class public research university, the University of Pittsburgh plays a major role on many fronts in Western Pennsylvania. In pursuing its academic mission, the University annually educates and graduates thousands of students in hundreds of degree programs. Through this education and training, Pitt is preparing the workers and leaders of the emerging 21st-century economy.

Through its daily operations, the University represents a significant economic engine for Allegheny County and the metropolitan Pittsburgh region. Spending in the local economy by Pitt-related constituencies equals **$1.74 billion**. The University's presence also is a source of jobs in the local area, with **11,335** faculty and staff employed directly by Pitt and **22,460** additional jobs supported by the University's economic activities.

As a prominent research organization, the University annually imports hundreds of millions of dollars in funding. Pitt researchers also cultivate the seeds of new technologies that ultimately will help to form tomorrow's successful businesses and industries. Pitt already has played a direct organizational or sponsorship role in the formation of some **42** companies. The University's leadership in developing and marketing new technologies will continue to stimulate broad-based economic opportunities in the region.

Fueled by its ongoing activities in many areas, the University of Pittsburgh is a powerful economic driver essential to the region's vitality and well-being and a dynamic partner in shaping and strengthening the economic future of Pittsburgh, the region, and the Commonwealth of Pennsylvania.

The *University of Pittsburgh Economic Impact Report* uses an institutionally modified version of the methodology developed by John Caffrey and Herbert H. Isaacs for the American Council on Education (ACE) and published as *Estimating the Impact of a College or University on the Local Economy* (ACE, Washington, D.C., 1971). The University recalculates all the relevant economic multiplier data based on the most current payroll-to-sales ratios, average wages for the Pittsburgh region, and other current regional economic and labor statistics.

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University of Pittsburgh

Leader in Education
Pioneer in Research
Partner in Regional Development

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