

# Economic Impact Argonne National Laboratory

Argonne National Laboratory has a significant, ongoing impact on the Illinois economy, advancing national priorities through basic and applied science and engineering, creating nearly 5,000 new jobs in Illinois, and generating almost \$700 million for state households and businesses in 2010. A U.S. Department of Energy Office of Science laboratory managed by the University of Chicago, Argonne has been a primary center for innovation since its founding in 1946.

## SUPPORTING THE ILLINOIS ECONOMY

A 1,500-acre research campus 25 miles southwest of Chicago, Argonne is the largest national laboratory in the Midwest and a center for government and corporate research and development, as well as academic collaborations. These activities benefit business and communities in the greater Chicago region and throughout the state.

### Argonne Economic Impact in Illinois in FY 2010\*

	Economic Output (millions)	Household Earnings (millions)	Employment
Argonne Expenditure Economic Impact	\$689.2	\$211.5	4,875
Contractor and Visitor Economic Impact	\$7.7	\$2.2	77
<b>Total Economic Impact</b>	<b>\$696.9</b>	<b>\$213.7</b>	<b>4,952</b>

Source: Anderson Economic Group, LLC

\*As each dollar spent by Argonne enters the economy, it supports additional business activity, jobs, and payroll. The numbers in this table reflect these multipliers.

In FY 2010



\$696.9

MILLION  
total economic output  
in Illinois

\$213.7

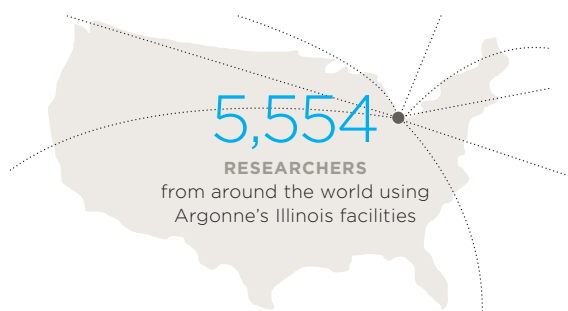
MILLION  
in income for Illinois  
households

\$600

MILLION  
in federal research funding  
attracted to Illinois

\$34.1

MILLION  
in construction at  
Argonne's Illinois site



## ARGONNE BREAKTHROUGHS



**Self-assembling nanomaterials:** Argonne researchers have discovered how to use a laser like a magic wand to assemble nanoparticles into structures with potential applications in catalysts, semiconductors, and many other fields.

**Fighting drug-resistant bacteria:** Research at Argonne has decoded the structure of a protein that helps bacteria resist drugs, aiding the fight against emerging superbugs.

**Solar-produced hydrogen:** Argonne chemists have linked platinum nanoparticles to algae proteins to create a new material that uses photosynthesis to produce hydrogen.

**Composite materials in hybrid vehicles:** In 2011, Argonne signed a worldwide licensing agreement with General Motors Co. for technologies to make the longer-lasting, more powerful lithium-ion batteries used in the Chevrolet Volt.

**Reduced emissions:** Integrated Fuel Technologies licensed Argonne's catalyst that removes 95 to 100 percent of nitrogen oxide from diesel engine emissions.

**Protein crystallography in HIV medication:** Research at Argonne's Advanced Photon Source led to Illinois-based Abbott Labs' development of Kaletra, a medicine for HIV approved by the FDA in 2000 with annual sales of over \$2.3 billion.

**ABOVE** Leading scientist Daniel Abraham conducts research in the field of lithium-ion batteries.



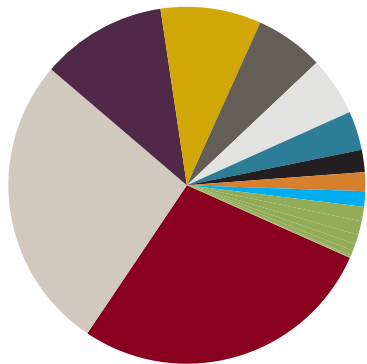
THE UNIVERSITY OF  
CHICAGO



For Argonne's full economic impact report, visit [uchicago.edu/research/economic-impact.shtml](http://uchicago.edu/research/economic-impact.shtml)

**INVESTMENT IN ILLINOIS**

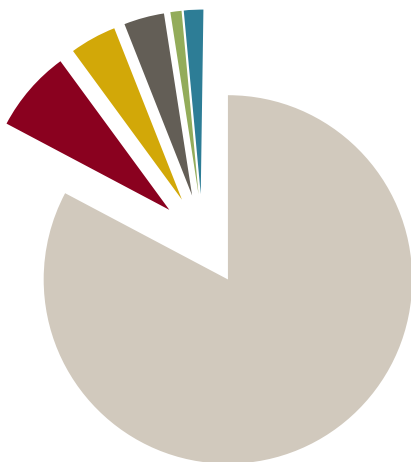
**Argonne Expenditures in FY 2010**



Receiving Industry	Expenditure (in millions)
Households	\$178.0
Professional, Scientific, Technical Services	\$172.1
Insurance Carriers	\$73.0
Wholesale Trade	\$58.5
General Manufacturing	\$39.8
Construction	\$34.1
Utilities	\$22.6
Publishing Industries	\$12.9
Rental and Leasing	\$11.0
Educational Services	\$9.0
Other Services	\$30.4
<b>Total</b>	<b>\$641.4</b>

**Argonne Revenues in FY 2010**

A variety of entities provide funding to obtain access to Argonne’s research or to conduct research at Argonne’s user facilities, including over 50 United States government agencies.



Source of Revenue	Amount (in millions)
Federal Government (excl. ARRA*)	\$551.8
Federal Government (ARRA)	\$47.9
Universities	\$27.2
Other National Laboratories	\$23.6
Corporations	\$6.5
Other	\$9.8
<b>Total</b>	<b>\$666.8</b>

*\*The American Recovery and Reinvestment Act, also known as the federal stimulus package*

**ENGINES OF DISCOVERY**

Argonne’s eight user facilities provide equipment, technology, and the support of staff experts for researchers from around the world. Together, the user facilities hosted more than 5,500 scientists in 2010.



**LEFT** Argonne’s largest user facility, the Advanced Photon Source (APS), welcomes visiting researchers from over 1,000 institutions worldwide, including 20 universities in Illinois and a total of 88 universities in the Midwest. To provide lodging for these visiting scientists, Argonne built its Guest House 20 years ago with \$27.6 million in funding from Illinois. More recently, Illinois invested \$36 million to build the Center for Nanoscale Materials next to the APS. These combined investments of less than \$64 million leveraged an additional \$2.2 billion in construction and research funding from the federal government, helping make Illinois home to the nation’s largest federally funded user facility.

**PUTTING RESEARCH TO USE**

> **Basic and applied research at Argonne helps grow the nation’s economy** and create jobs by launching new start-up companies, licensing high-impact patents to industry, and working with industry to improve existing products and create new ones.

> **A world-leader in battery R&D, Argonne has licensed several battery-related patents** to large and small companies in recent years, helping to create hundreds of new jobs in Kentucky, Ohio, Michigan, California, and Illinois.

> **GE Intelligent Platforms recently purchased SmartSignal of Lisle, Illinois, a company based on Argonne and UChicago technology.** With about 100 employees, SmartSignal provides analytical software for scores of companies in the power and oil and gas industries around the world.

**PREPARING NEW SCIENTISTS**



Through K-12 programming and opportunities for students to intern and research at the lab, Argonne helps train the next generation of scientists.

In FY 2010

**4,300+** ILLINOIS ELEMENTARY, MIDDLE, and HIGH SCHOOL STUDENTS visited the lab.

**600+** UNDERGRADUATE and GRADUATE STUDENTS conducted research alongside Argonne scientists.

**300+** POSTDOCTORAL RESEARCHERS and COLLEGE and GRADUATE STUDENTS participated in Argonne’s R&D activities.

**ABOVE** Young women from Illinois high schools participate in Argonne’s Science Careers in Search of Women conference.



THE UNIVERSITY OF CHICAGO



For Argonne’s full economic impact report, visit [uchicago.edu/research/economic-impact.shtml](http://uchicago.edu/research/economic-impact.shtml)