



**Corporate Partnerships
Technology Innovation
Student Research
Entrepreneurial Support**

An Economic Impact Report for the
Research Park at the University of Illinois
Urbana-Champaign

2015

Prepared by:



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About the Research Park

The Research Park at the University of Illinois provides an environment where technology-based businesses can work with faculty and students to take advantage of opportunities for collaborative research and easy access to University labs, equipment, and services. It was created by the University of Illinois in order to advance its economic development mission.

The University originally allocated 200 acres adjacent to central campus in Champaign, Illinois, for development of the technology park. A private developer was secured as a partner to help advance the development. The first building opened in January 2001.

After its inception, the Research Park transformed agricultural green field land from fish ponds and swine facilities into a vibrant technology park. The Research Park has constructed 14 buildings, over 600,000 total square feet, and houses more than 90 companies with over 1,600 employees.

More than 521 student interns work within the companies, gaining valuable work experience while making substantial contributions to research and product development programs.

Multinational companies in the Research Park include: AbbVie, Anheuser-Busch InBev, Citrix Systems, Grainger, Riverbed Technology, and Yahoo!

Research Park Recognition:

- **Top Startup City Award**
Popular Mechanics
- **Tech Hub to Watch**
techie.com
- **A Top 12 Incubator**
Changing the World
Forbes
- **College-Town Incubator**
Worth Watching
Inc Magazine



About EnterpriseWorks

EnterpriseWorks is a 43,000 square-foot facility at the heart of the Research Park. Owned and operated by the University of Illinois, EnterpriseWorks is a startup business incubator to help early-stage companies. Its atrium is an active hub, and its clients' fields span from biotechnology, chemical sciences, software development, to materials sciences.

Since opening in 2001, the Research Park has incubated over 170 startup companies, helping to convert University of Illinois research into commercial businesses. The incubator graduates approximately one-third of its tenants annually. Companies stay an average of three to five years at EnterpriseWorks.

EnterpriseWorks provides an ideal environment for starting a venture, with 24 full wet-labs, furnished office space, shared equipment, server co-location facilities, and conference rooms with complete presentation facilities and high-speed wireless internet access.

EnterpriseWorks also offers many supportive services for its clients including an Entrepreneur-in-Residence Program, I-Start professional launch services, free counseling, frequent training and networking events, and assistance with startup operations.

Approximately half of EnterpriseWorks tenants and affiliates are licensing technology from the University of Illinois.



“Starting our company at EnterpriseWorks was a no-brainer. It is a great environment with excellent support and resources to get a company quickly off the ground. The EnterpriseWorks staff are additional players on your team.”

*Personify Founder and CEO
Sanjay Patel*



At Illinois, research shapes the campus identity, stimulates classroom instruction, and serves as a springboard for public engagement activities throughout the world.

University of Illinois

The University of Illinois is a leader in conducting groundbreaking research that forms the foundation for meaningful innovation. World-changing achievements, discoveries, and creations are realized at Illinois.

The University of Illinois has embraced entrepreneurship and woven together a mix of support resources and programs to help fuel more technology commercialization. Entrepreneurial opportunities are being sought out in research labs, early stage funding is helping accelerate new companies, students are being mentored, and a vibrant incubator is housing new startup ventures.

Examples of the historical accomplishments of the University of Illinois include:

- Nick Holonyak was the first graduate student under the guidance of two-time Nobel Prize winner John Bardeen. Holonyak introduced the quantum-well laser and invented the first practical light-emitting diode. Today, all L-E-Ds and lasers use Holonyak's quantum-well lasers.
- Marc Andreessen was a student programmer at the National Center for Supercomputing Applications. Along with staff member Eric Bina, he created the prototype for Mosaic, the first browser for the World Wide Web. They also teamed up with Jim Clark from Silicon Graphics and founded Netscape, which was the dominant web browser for many years.
- Paul Lauterbur was a professor at the University and won the Nobel Prize for Physiology or Medicine. He developed Magnetic Resonance Imaging, which led to the invention of the medical MRI, a device that has become invaluable to the medical field.



About Economic Impact Analysis

Economic Impact Analysis

Economic impact analysis examines the regional implications of a development in terms of three basic measures: output, wages, and job creation. Inputs include the value of construction, the type of industry the business is generally classified as, and employment.

Economic impact is categorized into three types of impacts:

- Employment Impact - the total wage, salary, and self-employed jobs in a region.
- Earnings Impact - the personal income, earnings, or wages of the direct, indirect and induced employees. Earnings include total wage and salary payments as well as benefits of health and life insurance, retirement payments, and any other non-cash compensation.
- Economic Output - also referred to as economic activity, this impact relates to the gross receipts for goods or services generated by the company's operations.

Multipliers have been developed to estimate the indirect and induced impacts of various direct economic activities. Multipliers were created by IMPLAN Group of Minnesota.

- Indirect impacts are new jobs, wages and output that will be generated by industries that supply goods and services directly to the company.
- Induced impacts consist of the jobs, wages and output in industries that serve the direct and indirect employees and their families. The induced impact includes not only the end-use consumer products but also any locally purchased intermediate products that were used in producing the consumer goods and services.

Fiscal Impact Analysis

Fiscal impact analysis is categorized into two phases:

- Fiscal impact of construction - includes the direct, indirect, induced and total impact of a new or existing company during the construction phase in terms of sales taxes, income taxes, realty transfer taxes, motor fuel taxes, gas taxes, vehicle licenses and fees, telecommunication and electricity excise taxes, property taxes and other State and County revenues.
- Fiscal impact during operations - includes the direct, indirect, induced and total impacts of a new or existing company in terms of sales taxes, income taxes, realty transfer taxes, motor fuel taxes, gas taxes, vehicle licenses and fees, telecommunication and electricity excise taxes, property taxes, and other State and County revenues supported by the operations of the company. The operational phase impacts are generally considered the long-term consequences of a company.

Research Park and EnterpriseWorks Analysis

This study analyzes the impact from recent construction at the Research Park. Data attributed to the Research Park is inclusive of EnterpriseWorks incubator data. EnterpriseWorks data has also been broken out separately for its stand-alone economic impact. This study also analyzes the impact from operations of the Research Park in recent years, and combines that data with historical impact analysis.

Outputs from the economic and fiscal impact modeling include jobs, wages, and tax revenue of both construction and operations to Champaign County, East Central Illinois, and the State. Data was separated into three classifications according to Standard Industrial Classification (SIC) code: Professional and Technical Services, Educational Services, and Accommodations.

Research Park Infrastructure Investment Impact

The total construction investment in infrastructure and buildings in the Research Park since 2001 is \$116 million, of which \$16 million was invested in the past 5 years. Investments have been made by Fox/Atkins Development, the University of Illinois, UIRP LLC, the tenants in the Research Park, the State of Illinois, and the City of Champaign. The Research Park includes 600,000 square feet of constructed building space, inclusive of EnterpriseWorks.

Since 2012, new infrastructure investment within the Research Park has generated 125 direct jobs and 75 indirect and induced jobs. These 200 jobs, combined with the infusion of construction material costs and indirect/induced expenses, have created an economic impact of \$25 million into the East Central Illinois region’s economy.

Since 2001, Research Park construction and infrastructure projects have generated over \$184 million in direct, indirect, and induced impact into the East Central Illinois region’s economy.

Direct wages associated with the construction have totaled \$48 million since 2001. Indirect and induced wages have added another \$25 million for this region’s economy.

A significant amount of this impact has resulted in fiscal benefits for the State of Illinois and Champaign County. For construction incentives alone, the State has realized \$8.4 million in tax revenues since 2001, while Champaign County has benefited from \$2.3 million in tax revenues since 2001.

Chart 1: Economic Output and Impact of Research Park Infrastructure Investment

Years	Investment	Economic Output	State Impact	County Impact
2001 through 2011	\$100,000,000	\$159,000,000	\$7,200,000	\$2,100,000
2012 through 2015	\$16,000,000	\$25,000,000	\$1,200,000	\$259,000
TOTALS	\$116,000,000	\$184,000,000	\$8,400,000	\$2,359,000



EnterpriseWorks Infrastructure Investment Impact

EnterpriseWorks is comprised of 43,000 square feet at the heart of the Research Park. Over the past few years, infrastructure improvements and equipment modifications have been undertaken.

Since 2012, \$835,000 has been invested into infrastructure improvements at EnterpriseWorks. These projects have generated approximately 8 jobs and created a \$1 million economic impact into the East Central Illinois region's economy.

Direct wages associated with the recent infrastructure projects at EnterpriseWorks have totaled \$240,000, with indirect/induced wages totaling another \$117,000 for this region's economy.

As a result of the recent EnterpriseWorks infrastructure projects, the State has realized \$61,000 in tax revenues. Champaign County has benefited from \$13,000 in tax revenues from EnterpriseWorks improvements.

Chart 2: Economic Output and Impact of Recent EnterpriseWorks Infrastructure Investment

Years	Economic Output	State Impact	County Impact
2012 - 2015	\$1,000,000	\$61,000	\$13,000



Research Park Operations Impact

The entire Research Park currently has 1,618 full- and part-time employees, including 1,285 in Professional and Technical Services, 168 in Educational Services, and 165 in Accommodations.

The current annual economic output from direct, indirect, and induced Research Park operations in East Central Illinois is \$319 million.

Since 2012, the Research Park has directly employed an average of 1,504 direct staff members per year, with average yearly wages totaling \$59 million.

Research Park employees have contributed \$642 million in the East Central Illinois region's economy since 2012, an average of \$160 million per year. Indirect and induced jobs have generated \$545 million in the East Central Illinois region's economy since 2012, with an average of \$136 million per year.

Research Park operations currently generate \$7.5 million in annual tax revenues to the State of Illinois, and \$1.4 million in tax revenues to Champaign County.

Chart 3: Economic Output of Research Park Operations since 2012

	2012	2013	2014	2015
Direct				
Jobs	1,378	1,447	1,574	1,618
Wages	\$54,591,000	\$57,324,000	\$62,355,000	\$64,098,000
Economic Output	\$147,076,000	\$154,440,000	\$167,995,000	\$172,691,000
Indirect				
Jobs	584	613	667	685
Wages	\$20,422,000	\$21,445,000	\$23,327,000	\$23,979,000
Economic Output	\$67,534,000	\$70,916,000	\$77,140,000	\$79,296,000
Induced				
Jobs	530	557	606	623
Wages	\$17,960,000	\$18,859,000	\$20,514,000	\$21,088,000
Economic Output	\$57,312,000	\$60,182,000	\$65,464,000	\$67,294,000
Total Impact				
Jobs	2,492	2,617	2,847	2,926
Wages	\$92,973,000	\$97,628,000	\$106,196,000	\$109,165,000
Economic Output	\$271,922,000	\$285,538,000	\$310,599,000	\$319,281,000

EnterpriseWorks Impact

EnterpriseWorks currently has 173 full- and part-time employees in Professional and Technical Services. The impact of operations provided in this section is a portion of the entire Research Park's impact.

The current annual economic output from direct, indirect, and induced EnterpriseWorks operations in East Central Illinois is \$38 million.

The current annual yearly wages of direct staff members at EnterpriseWorks totals \$6.8 million.

EnterpriseWorks employees have contributed \$41 million in the East Central Illinois region's economy in the past two years. Indirect and induced jobs have generated \$35 million in the East Central Illinois region's economy in the past two years.

EnterpriseWorks operations currently generate \$802,000 in tax revenues to the State of Illinois, and \$150,000 in tax revenues to Champaign County.

Chart 4: Economic Output of EnterpriseWorks Operations since 2014

	2014	2015
Direct		
Jobs	219	173
Wages	\$8,676,000	\$6,854,000
Economic Output	\$23,374,000	\$18,465,000
Indirect		
Jobs	93	73
Wages	\$3,246,000	\$2,564,000
Economic Output	\$10,733,000	\$8,479,000
Induced		
Jobs	84	67
Wages	\$2,854,000	\$2,255,000
Economic Output	\$9,108,000	\$7,195,000
Total Impact		
Jobs	396	313
Wages	\$14,776,000	\$11,673,000
Economic Output	\$43,215,000	\$34,139,000

Access To Capital

Small Business Innovation Research (SBIR) and Small Business Technology Transfer Grant Awards

The SBIR program is coordinated by the United States Small Business Administration, in which 2.5 percent of the total extramural research budgets of all federal agencies with extramural research budgets in excess of \$100 million are reserved for contracts or grants to small businesses. In 2010, these research funds totaled over \$1 billion.

STTR is designed to expand public/private sector partnerships between small businesses and nonprofit U.S. research institutions, and is funded at 0.3% of the relevant agencies' extramural research budgets. In FY10, this total was over \$100 million.

Between the years of 2010-2014, 14% of all SBIR and STTR grants awarded in the State of Illinois went to companies in the Research Park, in total of \$72 million.

Eleven federal departments participate in the SBIR program and five departments participate in the STTR program. Funds are awarded competitively to small and young companies with proposed R&D concepts that pass a rigorous review process. The programs are a source of unencumbered capital that is focused on moving concepts and basic research closer to potential commercialization, with a focus on mission-related priorities among the funding agencies. This metric is embedded in every new economy benchmarking study and report card.

**Total SBIR/STTR grant funds awarded to EnterpriseWorks companies:
\$72 million**

**Total SBIR/STTR grant funds awarded to companies in the Research Park:
\$69 million**

**Total SBIR/STTR grant funds won while companies were incubated at EnterpriseWorks:
\$53 million**

Venture Capital

Venture capital funding is one of the indicators common to all new economy report cards and benchmarking reports. Publicly available data on the various forms of early-stage capital provided to emerging companies tend to be incomplete. Services that report venture funding capture a significant share of larger deals from more mature funds, and their coverage has improved considerably over time. Angel and seed funding is more difficult to identify and report. Large angel deals from more formal or institutionalized sources are often reported, but funding from more informal angel and seed sources is elusive at best. The annual survey of EnterpriseWorks incubator clients asks questions about funding, but limited responses are difficult to align with publicly available data.

Since 2003, EnterpriseWorks incubated companies have raised \$879 million in outside investment capital.