



# THE ECONOMIC IMPACT OF OHIO UNIVERSITY'S INNOVATION CENTER

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**PREPARED FOR:**  
THE INNOVATION CENTER  
OHIO UNIVERSITY  
340 WEST STATE STREET, UNIT 7  
ATHENS, OHIO 45701

**PREPARED BY:**  
OHIO UNIVERSITY'S VOINOVICH CENTER FOR  
LEADERSHIP AND PUBLIC AFFAIRS  
THE RIDGES, BUILDING 22  
ATHENS, OHIO 45701



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## **Executive Summary**

The total impact for Innovation Center Businesses generated an estimated \$183,000 in state and local sales tax from expenditures in the county and an estimated \$290,000 in state and local income and social insurance taxes.

In 2006, the Innovation Center contained six incubator industries: Diagnostic Hybrids Inc., Interthyr Inc., MediaBrite, Third Sun, On Shore and DC Consulting. This report identifies the number of jobs and amount of labor income directly associated with these incubator businesses and estimates the indirect and induced impacts of these businesses on the Athens County economy.

This study employed the Impact Analysis for Planning (IMPLAN) economic modeling software program. Data on the number of full- and part-time employees, total annual wages, the total outsourcing costs and the North American Industrial Classification System Codes for each Incubator business was provided by the Innovation Center.

The total impact of all businesses incubated by the Innovation Center on Athens County's economy in 2006 was estimated to be 344 jobs. These 344 jobs generated an estimated \$12.6 million in labor income. Innovation Center businesses also generated an estimated 1.4 million in state and local tax revenues.

## Introduction

This report presents an assessment of the calculated impact of Ohio University's Innovation Center on the economy of Athens County in 2006. It identifies the number of jobs and labor income directly associated with the businesses the Center incubated and the total impact on the local economy from these businesses. This study employs the Impact Analysis for Planning (IMPLAN) economic modeling software program created by MIG Inc. of Stillwater, Minnesota. For more details please see the project methodology section at the end of this report.

All businesses have "direct," "indirect," and "induced" impacts on the economy. Direct impacts refer to the actual jobs and income created in the local economy from businesses. Indirect impacts refer to second round expenditures made by these businesses within the local economy. Induced impacts refer to the increased sales of goods and services in the local economy due to employees of these businesses living and working in the county.

Another way of expressing these impacts is that a dollar spent in any sector of a local economy will generate additional dollars in other sectors. For example, a newly-employed worker purchases clothes for his or her family at a local clothing store, generating income for the store's owner. The owner saves some of this money and spends the rest, thereby providing income for another local resident. The third person saves part of this money and spends the rest, which becomes income for a fourth person, and so forth. The sum of the total direct, indirect and induced income is the total income generated in the local economy. Employment works in much the same manner and hence a new business bringing several new jobs to the county results in additional employment in the remainder of the local economy.

This study estimates the direct, indirect, and induced employment and labor income impact of Innovation Center businesses on the Athens County economy. This study also estimates state and local tax revenues generated as a result of these impacts.

### *Labor Income at Innovation Center Businesses, 2006*

	<b>Annual Wages to Staff</b>	<b>Outsourcing Costs</b>	<b>Estimated Total Labor Income</b>
Labor Income	<b>\$9,463,322</b>	<b>\$673,047</b>	<b>\$10,136,369</b>

### *Employment at Innovation Center Businesses, 2006*

	<b>Full Time</b>	<b>Part Time</b>	<b>Outsourced Employment*</b>	<b>Total**</b>
Employment	<b>150.0</b>	<b>47.0</b>	<b>20.8</b>	<b>217.8</b>

\*Outsourcing is the delegation of tasks or jobs from internal production to an external entity, and can therefore be considered a task or job of the company compensating for it. Outsourced employment was calculated by dividing the total cost of outsourcing by the average wage of individuals employed by the outsourcing company.

## Total Economic Impact of Innovation Center Businesses, 2006

Industrial Sector	Employment Impact				Labor Income Impact			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Ag. Forestry, Fishing & Hunting	-	1.2	1.3	2.5	-	\$3,105	\$6,896	\$10,001
Mining	-	0.1	0.1	0.2	-	\$2,345	\$3,017	\$5,361
Utilities	-	0.3	0.4	0.7	-	\$20,255	\$23,597	\$43,851
Construction	9.3	1.5	0.5	11.3	\$158,993	\$34,311	\$11,755	\$205,059
Manufacturing	-	1.5	1.1	2.6	-	\$42,467	\$33,774	\$76,241
Wholesale Trade	-	0.3	0.6	0.9	-	\$8,057	\$16,280	\$24,338
Transportation & Warehousing	-	2.2	1.6	3.9	-	\$72,682	\$47,330	\$120,012
Retail Trade	-	2.8	22.0	24.8	-	\$44,707	\$373,741	\$418,448
Information	-	1.2	0.9	2.1	-	\$39,354	\$33,253	\$72,608
Finance & Insurance	-	1.0	2.7	3.7	-	\$28,633	\$75,484	\$104,117
Real Estate & Rental	-	3.5	2.9	6.3	-	\$78,084	\$57,560	\$135,644
Prof., Scientific & Tech. Services.	208.5	6.1	2.4	217.1	\$9,977,376	\$204,623	\$69,005	\$10,251,004
Management Services	-	>0.1	>0.1	0.1	-	\$1,902	\$2,548	\$4,451
Administrative & Waste Services	-	9.1	1.6	10.8	-	\$95,096	\$20,148	\$115,244
Educational Services	-	>0.1	1.2	1.2	-	\$56	\$8,530	\$8,586
Health & Social Services	-	>0.1	20.6	20.6	-	\$28	\$575,339	\$575,367
Arts, Entertainment & Recreation	-	0.5	1.2	1.7	-	\$2,976	\$14,431	\$17,407
Accommodation & Food Services	-	2.7	15.1	17.8	-	\$24,947	\$126,935	\$151,882
Other Services	-	3.5	11.2	14.7	-	\$71,226	\$155,827	\$227,053
Government	-	0.5	0.8	1.2	-	\$19,648	\$32,345	\$51,993
<b>Total</b>	<b>217.8</b>	<b>38.0</b>	<b>88.3</b>	<b>344.0</b>	<b>\$10,136,369</b>	<b>\$794,502</b>	<b>\$1,687,796</b>	<b>\$12,618,668</b>

- The total impact of all six businesses incubated by the Innovation Center on Athens County's economy in 2006 is estimated to be 344.0 jobs and \$12.6 million in labor income. It should be noted that these impacts will be repeated for each year in which these jobs exist.
- These six businesses directly created an estimated 217.8 jobs, 197.0 of which were within Innovation Center businesses. The remaining 20.8 jobs were created through outsourcing.
- An estimated 38.0 jobs were indirectly created in Athens County by businesses that supplied goods and services to the Innovation Center businesses. Administrative and waste services and professional, scientific and technical services were calculated to experience the largest growth in employment due to indirect impacts.
- An estimated 88.3 additional jobs were created in Athens County due to the induced effects of employees of Innovation Center businesses spending part of their wages at businesses in the county. Retail trade and health and social services were calculated to experience the largest growth in employment due to induced impacts.
- Employment at the six businesses generated approximately \$9.5 million in labor income directly from employment within the businesses and an additional \$673,047 in labor income from outsourcing.
- An estimated \$794,502 in labor income was generated by Athens County businesses that supplied goods and services to the Innovation Center Businesses. Professional, scientific and technical services were calculated to experience the largest growth in labor income due to indirect impacts.
- An estimated \$1.7 million in labor income was generated in Athens County due to the induced effects of employees of Innovation Center Businesses spending part of their wages within the county. Health and social services and retail trade were calculated to experience the greatest increase in total labor income due to induced impacts.

## Tax Impact of Innovation Center Businesses

### *Estimated State and Local Non-Education Related Taxes*

<b>Tax Type</b>	<b>Estimated Tax Revenue</b>
Local Sales Tax	\$48,552
State Sales Tax	\$213,629
Income Tax	\$376,475
Social Insurance	\$355,332
Other State and Local Taxes	\$414,230
<b>Total</b>	<b>\$1,408,218</b>

- An estimated \$262,181 was generated in state and local sales taxes in 2006 as a result of Innovation Center businesses. These revenues will continue each year in which the jobs created by the Innovation Center businesses exist.
- Income and social insurance tax revenues associated with Innovation Center businesses was estimated to be \$731,807 in 2006. These revenues will continue each year in which the jobs created by the Innovation Center businesses exist.
- Overall, an estimated \$1.4 million in state and local tax revenue was generated in 2006 as a result of Innovation Center businesses.

## Project Methodology

This study employs the Impact Analysis for Planning (IMPLAN) economic modeling software and 2004 datasets created by MIG Inc., of Stillwater, Minnesota. The Innovation Center provided information on the number of full- and part-time employees, total annual wages and the North American Industrial Classification System Codes for each business. They also provided total outsourcing costs.

Since outsourcing is the delegation of tasks or jobs from internal production to an external entity, any employment or income created can be considered a direct impact of the company compensating for it. It was assumed that all costs associated with outsourcing were used to provide employment in the same industrial sector as the business that procured it, and that the outsourcing occurred in Athens County. Therefore, the total labor income for each business was the combination of total annual wages and outsourcing costs.

The total impact on the local economy by each industrial sector can be calculated through an economic model known as a “multiplier.” The multiplier expresses the number of additional jobs or amount of additional income created by each new job or each extra dollar earned. For example, if a new business bringing ten new jobs to the county created an additional seven jobs in the local economy through indirect and induced effects, the multiplier would be 1.7. For each new job bought to the county, an additional 0.7 jobs ( $1 + 0.7 = 1.7$ ) would be created in existing industries in the local economy.

The IMPLAN model generates the multipliers that are used to calculate indirect and induced impacts for each industrial sector. A multiplier known as the Type Social Accounting Matrix (SAM) multiplier was used in this study. The Type SAM multiplier estimates the indirect and induced impacts on each industrial sector in the local economy as well as business, household and government transactions. The Type SAM multipliers for Athens County generated by IMPLAN were applied to the total employment and total labor income for each business to calculate the corresponding indirect and induced impact. State and local tax revenue estimates were generated using IMPLAN. State sales tax estimates were adjusted to reflect the reduction in the State sales tax rate to 5.5 percent in 2006.







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