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## Economic Impact of JumpStart Inc. on Northeast Ohio, 2009

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Prepared for:  
**JumpStart Inc.**

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**ECONOMIC IMPACT OF  
JUMPSTART INC. ON  
NORTHEAST OHIO, 2009**

**CENTER FOR  
ECONOMIC  
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## **EXECUTIVE SUMMARY**

This report summarizes the findings of an economic impact study of JumpStart Inc. on Northeast Ohio. It was prepared for JumpStart Inc. by the Center for Economic Development at Cleveland State University's Levin College of Urban Affairs. The report summarizes the economic impact in 2009 resulting from JumpStart's activities in the following areas:

- Investments in start-up companies located in Northeast Ohio through JumpStart Ventures.
- Investments in start-up companies by the North Coast Angel Fund (NCAF). JumpStart led the creation of NCAF as Northeast Ohio's first managed angel fund, and it provided some funding and ongoing operational support for NCAF.
- JumpStart's services to assist other entrepreneurs through JumpStart TechLift Advisors.

## **JUMPSTART'S TOTAL ECONOMIC IMPACT ON NORTHEAST OHIO**

JumpStart's economic impact in 2009 on Northeast Ohio (based on its investments since 2004) includes the following impact measures:

- Output Impact: \$ 90.0 million
- Value Added Impact: \$56.8 million
- Labor Income Impact: \$ 39.8 million
- Employment Impact: 664 jobs
- Tax Impact: \$12.0 million (\$7 million to the federal government and \$5million to state and local governments)

## INTRODUCTION

This report summarizes the findings of an economic impact study of JumpStart Inc. on Northeast Ohio. JumpStart Inc., a regional non profit economic development organization, is “a nationally recognized non-profit creating economic transformation by efficiently securing and providing resources to entrepreneurs leading high potential, early-stage companies.”<sup>1</sup> More specifically, JumpStart operates in three ways: (1) it provides intensive development assistance to entrepreneurs who lead high potential, early stage companies; (2) JumpStart interacts with federal, state, and local decision makers, acting as a champion for entrepreneurs and for economic development through entrepreneurship, and (3) JumpStart works to increase the success of minority and women entrepreneurs in growing high impact businesses.

The report summarizes the economic impact in 2009 resulting from JumpStart investment in start-up companies in Northeast Ohio, its services to assist other entrepreneurs through JumpStart Ventures and JumpStart TechLift Advisors, and North Coast Angel Fund (NCAF) investments in Northeast Ohio companies.

Research for this study is based on two sets of activities. The first set of activities was to conduct an economic impact analysis of JumpStart investments in Northeast Ohio start-up companies. The second set of activities was to assess the contribution of JumpStart services through their three lines of business—JumpStart Ventures, JumpStart TechLift Advisors, and JumpStart Inclusion Advisors—and through IdeaCrossing, a free online community for entrepreneurs, accredited investors, business mentors, and service providers.<sup>2</sup>

For the purposes of this work, Northeast Ohio is defined as a 21-county region that corresponds with JumpStart’s service area. The region includes six metropolitan areas (Cleveland-Elyria-Mentor, Akron, Canton-Massillon, Mansfield, Sandusky, and Youngstown-Warren-Boardman) and eight non-metro counties.

- Akron metro area includes Portage and Summit Counties.
- Canton metro area includes Carroll and Stark Counties.
- Cleveland metro area includes Cuyahoga, Geauga, Lake, Lorain, and Medina Counties.
- Mansfield metro area consists of Richland County.
- Sandusky metro area consists of Erie County.
- Youngstown metro area includes Mahoning and Trumbull Counties.
- Eight non-metro counties include Ashland, Ashtabula, Columbiana, Crawford, Holmes, Huron, Tuscarawas, and Wayne.

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<sup>1</sup> <http://www.jumpstartinc.org/About/> (April 13, 2010)

<sup>2</sup> A more detailed description of the second set of activities is included in the full report, *JumpStart Inc.: Economic Impact and Contribution to Northeast Ohio, 2009*.

## **REPORT STRUCTURE**

This report includes two sections. Following this introduction, the second section describes the economic impact of JumpStart in Northeast Ohio in 2009. It explains the concept of economic impact, the methodology used in this study, and then presents the estimated economic impacts.

## JUMPSTART ECONOMIC IMPACT ON NORTHEAST OHIO

JumpStart creates economic impact primarily by its investments in innovative, early-stage companies that have the potential to generate \$30 million to \$50 million in revenues in 5 to 7 years. These companies receive funding from JumpStart after passing through the JumpStart Ventures' application and due diligence process. These investments are used by the companies to complete product prototypes, conduct early marketing campaigns, and add key team members. In addition, JumpStart Ventures provide these companies with strategic and operational guidance that enables the entrepreneurs to reach key growth milestones, advance through stages of the business, and attract follow-up funding. One of JumpStart's objectives is to help their companies grow through equity funding from other investors.

Other companies are affected by JumpStart through JumpStart TechLift Advisors and NCAF. TechLift Advisors' Entrepreneurs-in-Residence are former technology CEOs who have significant experience in a specific technology sector and who work with entrepreneurs within that sector. They assist entrepreneurs to create and articulate high growth strategic and operational plans, access investment funds, and move their businesses toward key milestones. The NCAF, whose creation as Northeast Ohio's first managed angel fund was led by JumpStart, invests in early stage, high growth companies throughout Ohio. JumpStart provides the funding and ongoing operation support for NCAF.

### WHAT IS ECONOMIC IMPACT?

Economic impact is an analytical approach used to estimate economic benefits from projects, programs, or companies in affected regions. These economic benefits are measured in terms of output (value of goods and services produced in the economy), value added (value of goods and services produced in the economy less intermediary goods and services), employment (number of jobs), labor income (household earnings), and taxes (federal taxes and state and local taxes). Economic impact estimates measure benefits for a specific region and time period.

Based on inter-industry relationships within regions, an economic impact analysis determines how regions respond to changes in economic activity. Multipliers are calculated from the inter-industry relationship estimating the "ripple effect" throughout the economy.<sup>3</sup>

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<sup>3</sup> For example, suppose that company ABC reports sales of \$1 million. To produce these products, the company needs to purchase additional goods and services from its suppliers. From the revenues, the company pays its suppliers and workers, covers production costs, and takes a profit. Once the suppliers and employees receive their payments, they will spend a portion of their money in the local economy purchasing goods and services, while another portion of the monies will be spent outside the local economy (leakage). By evaluating the chain of local purchases that result from the initial infusion of \$1 million, it is possible to estimate a regional economic multiplier.



## METHODOLOGY

Total economic impacts on output, value added, income, and employment are each a summation of three impacts: direct impact, indirect impact, and induced impact. Direct impact refers to the initial value of goods and services, including labor, purchased by the companies affected by JumpStart. These purchases are sometimes referred to as the first-round effect. Indirect impact measures the value of labor, capital, and other inputs of production needed to produce the goods and services required by JumpStart companies (second-round and additional-round effects). Induced impact measures the change in spending by local households due to increased earnings by employees working in the local industries who produce goods and services for the JumpStart companies and their suppliers.

As stated earlier, economic impact analysis is based on inter-industry relationships within an economy—that is, the buy-sell relationships among industries. These relationships largely determine how an economy responds to changes in economic activity. Input-output (I-O) models estimate inter-industry relationships in a region by measuring the industrial distribution of inputs purchased and outputs sold by each industry. Thus, by using I-O models, it is possible to estimate how the impact of one dollar or one job ripples through the local economy, creating additional expenditures and jobs. The economic multiplier measures the ripple effect that an initial expenditure has on the local economy.

The economic impact estimates presented in this report use IMPLAN Professional and IMPLAN Data Files.<sup>4</sup> IMPLAN Professional® 3.0 is the latest economic impact assessment software system released by Minnesota IMPLAN Group, Inc. Using the IMPLAN® Data Files, the user can develop sophisticated models of local economies in order to estimate a wide range of economic impacts. The IMPLAN® impact model is used by more than 1,000 public and private institutions. The number of users, as well as their reputations, points to the acceptability of the IMPLAN® model among researchers and consultants.

To estimate the economic impact of JumpStart in 2009, we include four types of companies:

- **JumpStart Venture Companies:** Thirty Nine (39) active JumpStart Ventures' portfolio companies were included in the estimate of economic impact. Information on their number of jobs, annual payroll, and operating budgets in 2009 was utilized. Six other companies were excluded because in 2009 they were inactive, dormant, or in fundraising phase with no operating expenses.

The study assumes that these 39 companies would have not existed without JumpStart pre-seed funding. However, recognizing the role other funders have had over time with

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<sup>4</sup> IMPLAN was originally developed by two federal agencies, the Department of Agriculture and the Department of the Interior, to assist in land and resource management planning. The model was later commercialized by the Minnesota IMPLAN Group, Inc.

some companies, only partial information was entered into the IMPLAN® model for 15 companies to acknowledge that JumpStart is among several contributors to their growth.<sup>5</sup>

- North Coast Angel Fund (NCAF) companies: Three NCAF companies with locations in Northeast Ohio were included. Six other NCAF companies were excluded from the impact analysis because they were located outside Northeast Ohio (four in Columbus and two in Cincinnati). As with JumpStart companies, information on the number of jobs, annual payroll, and operating budgets in 2009 was used. The study assumes that the three companies would have not existed without NCAF pre-seed funding.<sup>6</sup>
- TechLift companies: Responding to a survey, five companies indicated that JumpStart services were very valuable or moderately valuable in developing their ability to grow.<sup>7</sup> The study assumes that the five companies would have not grown without JumpStart assistance.<sup>8</sup>
- JumpStart Inc.: Information on JumpStart's employment, operating budget, and annual payroll was used in the impact estimates. However, only 58% of JumpStart data was used to account for JumpStart's percentage of revenues that were raised outside Northeast Ohio (through state, federal, and foundation funding). It assumes that these revenues would not have otherwise come to Northeast Ohio.

Each of the 47 companies and JumpStart are assigned to one of the 440 sectors included in the IMPLAN® model. The IMPLAN® regional model and its data were changed (edited) to provide better estimates for output per employee, number of employees, and annual payroll based on the individual companies included in the analysis.

## ECONOMIC IMPACT ESTIMATES

Five measures of impact are summarized: output, value added, labor income, employment, and tax. This is the first year value added impact is being included. The impact results are summarized in Table 1.

<sup>5</sup> Of the 15 JumpStart Venture companies with less than 100% credited to JumpStart, the following was entered into IMPLAN®: 1 company @95%, 5 companies @75%, 7 companies @50%, 1 company @25%, and 1 company @10%.

<sup>6</sup> 90% of the companies' data were attributed to North Coast Angel Fund and JumpStart.

<sup>7</sup> Information on companies that participated in JumpStart's three lines of business and IdeaCrossing was gathered via online surveys that were conducted in February of 2010. More information about these surveys is provided in the full report as *JumpStart Contributions*.

<sup>8</sup> For companies indicating that JumpStart assistance was very valuable, 100% of their data were used in the model. For companies indicating that JumpStart assistance was moderately valuable, only 50% of their data were used in the impact analysis.

**Table 1. JumpStart Economic Impact on Northeast Ohio in 2009**

<b>Impact Type</b>	<b>Output (\$)</b>	<b>Value Added (\$)</b>	<b>Labor Income (\$)</b>	<b>Employment</b>
Direct Effect	44,534,792	31,256,192	24,908,888	300
Indirect Effect	18,486,342	9,912,224	6,193,298	124
Induced Effect	26,951,286	15,615,008	8,688,411	240
<b>Total Effect</b>	<b>89,972,416</b>	<b>56,783,360</b>	<b>39,790,596</b>	<b>664</b>

The economic impact is presented in \$2009. All numbers have been rounded to the nearest whole number.

### Output Impact

Output impact provides an estimate of the total change in output produced in Northeast Ohio due to JumpStart's activities. Output impact in 2009 amounted to \$90 million (in \$2009). Of that, \$44.5 million (49%) is accounted for by direct production of goods and services by JumpStart, its portfolio companies, NCAF, and some TechLift companies. An additional \$18.5 million (21%) is indirect impact—goods and services produced regionally to support the activities of JumpStart and its portfolio companies. The induced impact of \$27 million (30%) measures the value of goods and services produced in the region to satisfy the increased demand by households throughout the economy. Of the total output impact of \$90 million, JumpStart itself accounts for 9.6% of the output impact. The remainder is accounted for by JumpStart portfolio companies as well as NCAF and TechLift companies.

### Value Added Impact<sup>9</sup>

Value Added impact measures the value of goods and services produced in the economy less intermediate goods and services. By definition it is smaller than output impact and it is equivalent to the definition of gross regional product. In 2009, value added impact was \$56.8 million (Table 1). Of that, \$31.3 million (55%) is attributed to direct impact, \$9.9 million (17%) to indirect impact, and \$15.6 (27%) to induced impact. Of the total value added impact of \$56.8 million, 8.5% is accounted for by JumpStart itself. The remainder is a result of the portfolio, NCAF, and TechLift companies.

<sup>9</sup> This is the first year where impact measures include value added. As a result, the report includes value added impact for 2009, but it will not be compared to the same measure in earlier years.

### **Labor Income (Earnings) Impact**

Every new job created by JumpStart's portfolio companies, NCAF companies, TechLift companies, JumpStart itself, and all their suppliers generated new earnings for local households. In 2009, total household earnings in Northeast Ohio increased by \$39.8 million due to JumpStart's activities (Table 1). Of this impact, \$24.9 million (63%) resulted from the direct effects of payroll of portfolio, NCAF, and TechLift companies and JumpStart employees; \$6.2 million dollars (16%) of the total income impact resulted from increased earnings in other industries in the region that supply JumpStart and the other companies. The remaining income impact (induced impact) of \$8.7 million (22%) is due to increased household earnings throughout the economy. Of the total income impact of \$39.8 million, 10.8% is accounted for by JumpStart itself. The remainder is a result of the portfolio, NCAF, and TechLift companies.

### **Employment Impact**

The total employment impact in Northeast Ohio attributed to JumpStart and its portfolio, NCAF, and TechLift companies in 2009 amounted to 664 jobs (Table 1). Of these, 300 (45%) are the result of direct impact. The direct impact includes 58% of the employees working at JumpStart and all or a proportion of the employees in its portfolio, NCAF, and TechLift companies. An additional 124 jobs (19% of total employment impact) were created in industries supporting JumpStart and its NCAF, portfolio, and TechLift companies, and 240 (36%) more jobs were created throughout the economy due to increased employee earnings. Of the total employment impact of 664 jobs, 9.5% are a result of JumpStart itself. The remainder employment impact is due to the portfolio, NCAF, and TechLift companies.

### **Tax Impact**

JumpStart investment and services to entrepreneurs also resulted in additional tax revenues to local and state governments as well as the federal government. Reports on JumpStart's economic impacts in 2006 and 2007 did not measure this impact. However, this report, as well as the previous 2008 report, includes tax impact.

In 2009 as a result of JumpStart investments and its other activities in Northeast Ohio, state and local tax revenues increased by \$5.1 million and federal tax revenues rose by \$7 million.<sup>10</sup>

<sup>10</sup> To be exact, JumpStart's federal tax impact in 2009 was \$6,964,260 and its state and local tax impact was \$5,074,076.

### JumpStart's Economic Impact on Northeast Ohio is Growing

JumpStart's economic impact in 2009 was higher than its impact in the previous 3 years (2006-2008), even after adjusting for inflation using the Consumer Price Index.<sup>11</sup> Table 2 shows JumpStart's economic impact in each of the last 4 years and the increase between the last 2 years.

**Table 2. JumpStart's Economic Impact: 2006-2009**

Impact	2006*	2007*	2008*	2009	2008-2009 Increase
Output	\$42.2 million	\$57.7 million	\$74.7 million	\$90 million	\$15.3 million (20%)
Labor Income	\$14.9 million	\$18.7 million	\$20.6 million	\$39.8 million	\$19.2 million (93%)
Employment	308 jobs	346 jobs	502 jobs	664 jobs	162 jobs (32%)

\* For comparison purposes, JumpStart's 2006, 2007, and 2008 impacts were inflated to 2009 dollars.

The increase is due to four factors: investment in new portfolio companies, growth of existing portfolio companies (partially offset by companies that became inactive), investment in new NCAF companies, and growth of other companies who benefited by the services offered by TechLift Advisors.

<sup>11</sup> According to the Consumer Price Index for all Urban Consumers (CPI-U), overall price levels in the Cleveland metropolitan area fell by 1.37% between 2008 and 2009. CPI-U also declined in the Midwest (-0.64%) and the U.S. (-0.36%).