



Prepared for:
JumpStart Inc.

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April 2008

JUMPSTART INC.:

**ECONOMIC IMPACT
ON NORTHEAST
OHIO, 2007**

**Center for
Economic
Development**



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INTRODUCTION AND SUMMARY

This brief research note summarizes the economic impact resulting from JumpStart Inc. investment in start-up companies in Northeast Ohio. JumpStart is a venture development organization that advises, invests in, assists, and accelerates Northeast Ohio's early-stage ideas and companies.¹

The research is based on data from the 26 companies in which JumpStart has invested since its inception in 2004 through December 2007 and data on JumpStart itself. In addition, data from one company that participated in the JumpStart Assist process was included in the study. For the purposes of this work, Northeast Ohio is defined as a 21-county region consisting of six metropolitan areas (Cleveland-Elyria-Mentor, Akron, Canton-Massillon, Mansfield, Sandusky, and Youngstown-Warren-Boardman) and eight non-metro counties. The Cleveland metro area includes Cuyahoga, Geauga, Lake, Lorain, and Medina Counties; the Akron metro area includes Portage and Summit Counties; the Canton metro area includes Carroll and Stark Counties; the Mansfield metro area includes Richland County; the Sandusky metro area includes Erie County; and the Youngstown metro area includes Mahoning and Trumbull Counties. The eight non-metro counties include Ashland, Ashtabula, Columbiana, Crawford, Holmes, Huron, Tuscarawas, and Wayne. This 21-county region corresponds with JumpStart's service area.

JumpStart's Total Economic Impact

- Output Impact: \$ 56.3 million
- Income Impact: \$ 18.3 million
- Employment Impact: 346 jobs

¹ <http://www.jumpstartinc.org/About/About.aspx>

WHAT IS ECONOMIC IMPACT?

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

Economic impact analysis is based on inter-industry relationships within regions, which determine how regions respond to changes in economic activity. Multipliers are calculated from the inter-industry relationship estimating the “ripple effect” throughout the economy.²

METHODOLOGY

Total economic impact on output, 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 an organization within a defined economic region. 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 that organization (second-round and additional-round effects). Induced impact measures the change in spending by local households due to increased earnings by employees in local industries who produce goods and services for the organization.

² For example, suppose that company ABC reports sales of \$1 million. 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.

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. This study utilizes regional I-O multipliers from IMPLAN Professional.³

To estimate the economic impact of JumpStart, we use the number of jobs in 2007 in the portfolio companies in which JumpStart has invested. It assumes that these companies would have not existed without JumpStart's pre-seed funding. We also include the number of JumpStart employees to account for the services they provide their portfolio companies as well as technical assistance to other entrepreneurs and companies in Northeast Ohio. Finally, we included the number of jobs in companies that participated in JumpStart's Assist⁴ process if the company secured investment capital following the Assist process and the owner indicated that the process was critical to his/her ability to attract investment. In 2007, one company met this condition and, for the purposes of this study, is treated as a portfolio company.⁵ Each of the portfolio companies and JumpStart are assigned to one of the 509 industries included in the IMPLAN model.

³ 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.

⁴ The JumpStart Assist process matches entrepreneurs with a JumpStart entrepreneur-in-residence who helps them to prepare a presentation of their business idea to JumpStart's investment panel.

⁵ Information on companies that participated in the Assist process was gathered via an online survey that was conducted in March and April 2008. Individuals representing 70 companies were invited to participate in the survey; 20 responded.

MAJOR FINDINGS

Three measures of impact are summarized: output impact, income impact, and employment impact.

Output Impact

Output impact provides an estimate of the total change in output produced in Northeast Ohio due to JumpStart’s activities. Measured in 2007 dollars, output impact amounted to \$56.3 million (Table 1). Of that, \$34.5 million (61%) is accounted for by direct production of goods and services by JumpStart and its portfolio companies. An additional \$10.6 million (19%) is indirect impact—goods and services produced regionally to support the activities of JumpStart and its portfolio companies. The induced impact of \$11.2 million (20%) measures the value of goods and services produced in the region to satisfy the increased demand by households throughout the economy. Of the output impact of \$56.3 million, JumpStart itself accounts for 5.8 percent of the output impact. The remainder is accounted for by the portfolio companies.

Table 1. JumpStart Economic Impact on Northeast Ohio

| | Output | Labor Income | Employment |
|------------------------------|---------------------|---------------------|-------------------|
| Direct Impact | \$34,531,023 | \$11,271,486 | 163 |
| Indirect Impact | \$10,598,222 | \$3,481,989 | 77 |
| Induced Impact | \$11,152,271 | \$3,500,305 | 106 |
| Total Economic Impact | \$56,281,517 | \$18,253,780 | 346 |

Labor Income (Earnings) Impact

Every new job created by JumpStart’s portfolio companies and by JumpStart itself generated new earnings for local households. Total households earnings in Northeast Ohio increased by \$18.3 million in 2007 due to JumpStart’s activities (Table 1). Of this impact, \$11.3 million (62%) resulted from the direct effects of payroll of portfolio

companies and JumpStart employees. \$3.5 million dollars (19%) of the total income impact is a result of the increased earnings in other industries in the region that supply JumpStart and its portfolio companies. The remaining income impact, \$3.5 million (19%), is due to increased household earnings throughout the economy. Of the total income impact of \$18.3 million, 7.7 percent is accounted by JumpStart Inc. itself. The remainder is a result of the portfolio companies.

Employment Impact

The total employment impact in Northeast Ohio by JumpStart and its portfolio companies in 2007 amounted to 346 jobs (Table 1). Of these, 163 (47%) are a direct impact—the number of employees working at JumpStart and its portfolio companies. An additional 77 jobs (22% of total employment impact) were created in industries supporting JumpStart and its portfolio companies, and 106 (31%) more jobs were created throughout the economy due to increased employee earnings. Of the total employment impact of 346 jobs, 11 percent are a result of JumpStart Inc. itself. The remainder employment impact is due to the portfolio companies.

JumpStart’s Economic Impact on Northeast Ohio is Increasing

In 2007, JumpStart invested in eight new companies and its Assist services were instrumental to the success of one company in securing outside investment. These companies added to the economic impact of JumpStart through their direct employment (a total of 29 jobs) and by increasing the ripple effect that results in higher regional output, income, and employment. In addition, several companies in which JumpStart invested in prior years added jobs during 2007, which also increased the economic impact of JumpStart.

Table 2. JumpStart’s 2006 versus 2007 Economic Impact

| Impact | 2006* | 2007 | Increase |
|--------------|----------|-----------|----------------|
| Output | \$41.4 M | \$ 56.3 M | \$14.9 M (36%) |
| Labor Income | \$14.6 M | \$ 18.3 M | \$3.7 M (25%) |
| Employment | 308 jobs | 346 jobs | 38 jobs (12%) |

* For comparison purposes, JumpStart’s 2006 output and income impact were inflated to 2007 dollars.