# The Economic Impacts of the New Economy Initiative in Southeast Michigan

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#### **Executive Summary**

The New Economy Initiative (NEI) was created in 2007 as a project of the Community Foundation for Southeast Michigan, with the mission to "accelerate Southeast Michigan to a position of leadership in the new global economy."<sup>1</sup> Twelve national and local foundations have committed \$133 million towards this effort. Through 2015, NEI has awarded 259 grants worth \$96.2 million to more than a dozen grantee organizations that are primarily focused on fostering entrepreneurship and early stage business in Southeast Michigan. These grantees provide a variety of services to local businesses and the entrepreneurial community, including access to capital, idea competitions, entrepreneurial networking, training programs and identification of best practices, and investments in neighborhoods and buildings that facilitate entrepreneurship.

Overall, Southeast Michigan companies that benefited from NEI support generated \$2.9 billion in inflation-adjusted (or "real") output, \$1.9 billion in Detroit-area real gross domestic product (GDP), \$1.1 billion in real wages and salaries, and \$1.1 billion in disposable personal income over the period 2008 to 2015. Assuming these companies grow at average rates over the next five years, the economic impact between 2015 and 2020 would be another \$1.5 billion in output, \$1.0 billion in real GDP, \$0.7 billion in wages and salaries, and \$0.7 billion in disposable personal income.

<sup>&</sup>lt;sup>1</sup> New Economy Initiative 2015 Evaluation Report.

# The Economic Impacts of the New Economy Initiative in Southeast Michigan

## I. Introduction

The New Economy Initiative (NEI) was created in 2007 as a project of the Community Foundation for Southeast Michigan, with the mission to "accelerate Southeast Michigan to a position of leadership in the new global economy."<sup>2</sup> Twelve national and local foundations have committed \$133 million towards this effort. Through 2015, NEI has awarded 259 grants worth \$96.2 million to more than a dozen grantee organizations that are primarily focused on fostering entrepreneurship and early stage business in Southeast Michigan. These grantees provide a variety of services to local businesses and the entrepreneurial community, including access to capital, idea competitions, entrepreneurial networking, training programs and identification of best practices, and investments in neighborhoods and buildings that facilitate entrepreneurship. PwC was asked to prepare a report that demonstrates the social and economic impacts of Detroit area businesses that received NEI support. This report provides estimates of the economic impacts of these companies on the Detroit area in terms of GDP (or value added), output (or total sales), investment, and personal income.

Overall, Southeast Michigan companies that benefited from NEI support generated \$2.9 billion in inflation-adjusted (or "real") output, \$1.9 billion in Detroit-area real gross domestic product (GDP), \$1.1 billion in real wages and salaries, and \$1.1 billion in disposable personal income over the period 2008 to 2015. Assuming these companies grow at average rates over the next five years, the economic impact between 2015 and 2020 would be another \$1.5 billion in output, \$1.0 billion in real GDP, \$0.7 billion in wages and salaries, and \$0.7 billion in disposable personal income.

# II. Our Approach

To estimate the economic impacts of NEI-supported companies, we gathered data on NEI grants to date, the direct recipients of those grants (grantees), and the ultimate businesses and entrepreneurs that have benefitted from those grants (NEI grantee clients). Table 1 shows the amounts of NEI direct grants, matching grants, other investment dollars raised by NEI grantee clients, and NEI grantee client revenues, as published in NEI's 2015 Evaluation Report.

<sup>&</sup>lt;sup>2</sup> New Economy Initiative 2015 Evaluation Report.

	2008	2009	2010	2011	2012	2013	2014	2015	2008-15
NEI Grants	\$1.4	\$22.7	\$15.1	\$11.4	\$14.3	\$8.7	\$13.8	\$8.9	\$96.2
Matching Grants by Other Organizations		\$71.8	\$44.8	\$40.7	\$46.2	\$9.7	\$12.2	\$8.3	\$233.7
Other Investment Funds Raised by NEI Grantee Clients			\$75.8	\$107.2	\$73.3	\$19.2	\$106.8	\$196.2	\$578.5
NEI Grantee Client Revenue				\$0.5	\$29.6	\$31.7	\$10.5	\$21.1	\$93.4
Source: New Economy	Initiative 2	015 Evalu	ation Repo	T	Ψ23.0	ψ01.7	ψ10.5	ΨΖ Ι.Ι	ψ90

 Table 1: NEI Grants, Matching Grants, Other Funds raised by NEI Grantee Clients

 and NEI Grantee Client Revenue (millions of dollars)

The funds summarized in Table 1 represent the resources available to Detroit-area entrepreneurs to invest and grow their businesses.<sup>3</sup> While many of the NEI grants were not provided directly to grantee clients, the grants provided services that helped the grantee clients develop their businesses and expand their operations. Other investment funds raised by grantee clients and client revenues could be used to pay salaries, purchase inputs, and expand capital investment.

NEI does not track the growth of grantee client revenue, but does have some indication of the survival rate of grantee clients. Based on this information, we developed growth trajectories for these enterprises using Census Bureau statistics on young firms (see the Appendix for a complete description of the methodology). The average growth trajectory assumes that NEI grantee client revenues grow at a rate consistent with the national average growth rate in employment among new firms.<sup>4</sup>

NEI also provided us more detailed data on a sample of approximately 4400 entrepreneurs (clients) supported by NEI grants, as reported by grantee organizations. This data includes client-level information about the industry of the client, the associated NEI grants, investment raised, and revenue generated. We used this client data to provide an industry distribution of the primary dollar inputs taken from the Evaluation Report and presented in Table 1.

To estimate the economic impacts of this business spending on the Detroit area, we used the REMI modeling system, a widely used and respected regional economic modeling system based on standard input-output relationships. REMI accounts for a) the indirect supply chain effects of direct business spending, b) the induced effects due to workers spending their incomes, and c) increases in spending associated with new residents attracted by the increased economic activity. We used a REMI model tailored to the Detroit area, defined by the following seven Michigan counties: Wayne, Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw.

Impacts for supported businesses are modeled through 2015 and 2020. The results beyond 2015 account only for grantee client revenues and exclude additional grants and other investment funds raised by grantee clients after 2015.

<sup>&</sup>lt;sup>3</sup> As described in NEI's 2015 Evaluation Report, NEI and its grantees provided other assistance and resources to entrepreneurs that may not be fully quantified by these dollar amounts. PwC's (forthcoming) analysis of the social impacts of NEI addresses some of these other benefits.

<sup>&</sup>lt;sup>4</sup> Derived from U.S. Census Bureau, Business Dynamics Statistics.

### III. Results

The estimated cumulative economic impacts, including the direct, indirect and induced impacts, of the increased business spending undertaken by businesses supported by NEI between 2008 and 2015 are presented below. The figures are adjusted for inflation to constant 2015 dollars. Impacts are provided in terms of total output, gross domestic product (or value added), wages and salaries, disposable personal income, and total investment in equipment, structures, and intellectual property.

In the average growth scenario, in which NEI grantee clients are assumed to grow according to the average start-up, the total value of output associated with NEI grantee clients over the 2008 to 2015 period amounted to \$2.9 billion. This figure includes the total sales of the grantee clients, their suppliers, and providers of goods and services to their employees.

While total output is a measure closer to sales or revenues of the businesses, it includes the value of inputs at multiple stages of the supply chain. GDP represents the sum of incomes such as wages paid to workers and profits earned by business owners. The impact of NEI grantee clients on GDP is larger than the wages their employees receive and the profits they generate. NEI grantee clients purchase inputs from local businesses, who in turn purchase goods from other Detroit suppliers. Each of these purchases generates income for the local economy. Employees of the grantee clients and their suppliers spend their income at local businesses, which generates additional economic activity. Total real GDP (or value added) in Southeast Michigan attributable directly and indirectly to NEI grantee clients increased by a cumulative \$1.9 billion over the years 2008 to 2015 (see Figure 1). Of that, \$1.15 billion represented wages and salaries paid to Detroit-area residents and \$0.75 billion represented other forms of income such as profits earned by business owners.

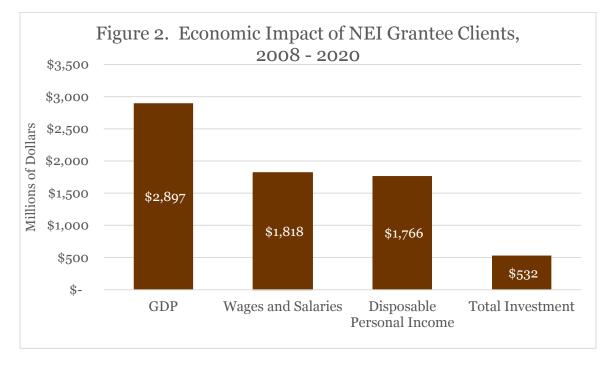


The amount of after-tax income that households have to spend or save each year is described as disposable personal income. Between 2008 and 2015, real disposable personal income in the

Detroit area increased by an estimated \$1.1 billion as a result of the economic activity of NEI grantee clients.

The economic activity of these companies led to an increase of total investment in Detroit area buildings, equipment and intellectual property of \$330 million over the period 2008 to 2015.

Over the long-term (2008-2020), in which we assume after 2015 that only NEI grantee client revenues continue as a source of funds for business spending, output (or total sales) increases by a cumulative \$4.4 billion. GDP in Southeast Michigan increases by a cumulative \$2.9 billion. Wages and salaries increase by a cumulative \$1.8 billion over the years 2008 to 2020. Disposable personal income (after tax) increases by a cumulative \$1.8 billion. Investment in buildings, equipment, and intellectual property increases by a cumulative \$532 million over the years 2008 to 2020 (see Figure 2).



These impacts assume that NEI grantee clients grow at a national average rate for new firms. To the degree these companies are more successful, the overall results would be larger.

As demonstrated in Table 1, a significant amount of the funding of NEI grantee clients comes from sources other than NEI. From the information available, we cannot determine the degree to which NEI enabled, fostered or made possible these other sources of funding. It is NEI's express purpose to connect Detroit-area entrepreneurs with funding from a variety of sources, so some of the other revenue streams available to grantee clients could be attributed to NEI activities. We have not attempted to estimate the amount of economic activity generated by grantee clients that was attributable solely to NEI activities.

#### **IV.** Conclusion

Since 2007, NEI has awarded some \$96 million in grants to organizations that are focused on fostering business formation in the Detroit area. Through awards and other assistance, these organizations have helped thousands of entrepreneurs start and grow their businesses in the Detroit area. Based on the reported sales of these businesses and their funds raised, we find that the business activity by companies supported by NEI in the Detroit area results in a cumulative real GDP impact of \$1.9 billion over the years 2008 to 2015 and \$2.9 billion over the years 2008 to 2020. Along with GDP, real wages and salaries in the Detroit area increase by a cumulative \$1.1 billion over the years 2008 to 2015 and \$1.8 billion over the years 2008 to 2020.

Many of the businesses supported by NEI would exist in the absence of the support NEI provides to local entrepreneurs. However, NEI helps to create the local conditions that support new business formation, growth, and development. The companies that have grown in this environment generated significant amounts of economic activity in the Detroit area between 2008 and 2015.

#### Appendix: Methodology

As our primary inputs for modeling the economic impacts of NEI, we used the following four items (see Table 1), published in NEI's 2015 Evaluation Report:

- 1) NEI grant dollars awarded by year, 2008 to 2015 (page 17, Figure D3A-I)
- 2) Program match dollars from other organizations by year, 2009 to 2015 (page 18, Figure D3B-I)
- 3) Other investment dollars raised by NEI grantee clients by year, 2010 to 2015 (page 18, Figure D3B-II)
- 4) NEI grantee client revenues by year, 2011 to 2015 (page 21, Figure D3E-II)

Table 1 summarizes these impacts.

We also reviewed NEI grantee client data covering a sample of approximately 4400 clients. This data includes client-level information about the industry of the client, NEI grants received, investment raised and revenue generated. We used this client data to provide an industry distribution of the primary dollar inputs taken from the Evaluation Report.

Additionally, we used the NEI grantee client data as a check against the data provided in the Evaluation Report. While the NEI grantee client data covers only a fraction of the NEI grant dollars awarded to date (approximately 18 percent), the associated client revenue reported by the clients exceeds that reported in the Evaluation Report (approximately \$203 million reported by clients versus \$93 million in cumulative revenue reported in the Evaluation Report). Some clients are listed multiple times in the client data, and some are located outside of Southeast Michigan. Even after adjusting for this, the revenue reported by unique clients within Southeast Michigan (approximately \$161 million) exceeds the cumulative amount reported in the Evaluation Report. Similarly, the client data indicates a larger amount of other investment raised by clients than is reported in the Evaluation Report (approximately \$739 million reported by clients versus \$579 million in cumulative investment reported in the Evaluation Report). Investment dollars reported by unique clients located within Southeast Michigan (approximately \$544 million) is approximately equal to the cumulative amount reported in the Evaluation Report. From this we concluded that revenue and other investment amounts provided in the Evaluation Report are conservative estimates, which may be lower than the amounts reported by the clients because they have been adjusted for double-counting and are otherwise more thoroughly vetted by the grantees. Based on this, we utilized the Evaluation Report as our primary data source.

Further, based on comparison with the client data, we assumed that the annual amounts reported in the Evaluation Report are for unique clients, meaning that each year a different set of NEI grantee clients receives funding from NEI grants. We then assumed that each cohort of NEI grantee clients grows in accordance with standard growth rates for start-up companies. The growth rates we used are the annual growth rates of employment among start-up companies by company age, based on business registration data from the Census Bureau.<sup>5</sup> For our "average growth" scenario, we used the employment growth rates for all companies. Under a "high growth" scenario, employment growth rates for all continuing companies is slightly higher, but the difference is not significant. NEI provided us information about client survival rates for some of its grantees, which indicates that NEI grantee clients fall somewhere between the average growth and high growth scenarios. We have only presented the average growth rate

<sup>&</sup>lt;sup>5</sup> John Haltiwanger, Ron S. Jarmin, and Javier Miranda, "Who Creates Jobs? Small vs. Large vs. Young," U.S. Census Bureau, Center for Economic Studies, August 2010, page 40, Figure 4.

scenario in the report. We applied these employment growth rates to NEI client revenues and further grew revenues by the rate of growth of Detroit's nominal GDP per capita.<sup>6</sup>

For each year from 2008 to 2020, in order to estimate total funds available to NEI grantee clients, we summed the following items:

- 1) NEI client revenue projected forward through 2020, using growth in employment and nominal GDP per capita
- 2) NEI grant dollars awarded, assuming the final year of grants is 2015
- 3) Program match dollars, assuming the final year of grants is 2015
- 4) Other investment dollars raised by NEI grant clients, assuming no dollars are raised after 2015

We used the REMI modeling system to estimate the economic impacts of these annual dollar inputs by industry. We treated the total funds available as "industry sales" in REMI, which assumes these dollar amounts represent increased sales for a given industry in Southeast Michigan which do not displace existing sales in that industry. We believe this is a reasonable assumption because a) NEI grantee clients are for the most part relatively small start-ups that have not yet begun to grab significant market shares, and b) most of the total funds available are not actual sales but instead grants and other funds raised that are used to hire, invest and otherwise grow the business.

One limitation of REMI is that it does not provide the ability to model annual inputs for years prior to 2014. Because we needed to estimate the impact of NEI grantee clients from 2008 through 2020, we developed projections at current levels and discounted them backwards to represent the levels for 2008 forward.<sup>7</sup>

<sup>&</sup>lt;sup>6</sup> The U.S. Census Bureau provides the Detroit area's GDP per capita through 2014. After 2014, we used REMI's projection of GDP per capita for Southeast Michigan.

<sup>&</sup>lt;sup>7</sup> Where available we used U.S. Census Bureau statistics on the Detroit-area GDP, and otherwise used national GDP projections from the Congressional Budget Office.