# The Employment Impact of the New Economy Initiative (NEI) on the Detroit Region and the State of Michigan

Prepared for the New Economy Initiative, A special project of the Community Foundation for Southeast Michigan

by

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# **Executive Summary**

The New Economy Initiative (NEI) is a collaboration of multiple foundations with the purpose of driving economic growth in Southeast Michigan through entrepreneurship and small business development. Responding to the dire economic conditions in the Detroit area, 10 foundations in Michigan stepped forward in 2007 and pledged \$100 million to help turn around the loss of jobs and the loss of entrepreneurial spirit in the area. The resources committed by the philanthropic community are unprecedented for such a focused economic development effort, but so are the challenges.

From 2000 to 2010, when employment fell to its lowest, the Detroit metro area lost nearly a quarter

Based on reports from NEI grantees and in-depth interviews with selected grantees the Upjohn Institute estimated:

- 7,468 jobs were created by NEI grantees
- 10,022 indirect jobs were created based on the direct jobs
- The direct jobs were estimated to pay on average \$44,000 per year
- 51 percent of direct jobs were in professional, scientific, and technical services

of the jobs it had at the beginning of the decade, and the loss of jobs in the city of Detroit was even worse. Since 2010, the employment picture has looked a little brighter, although much more needs to be done, in the words of NEI, "to return Detroit to its position as a global economic leader."

As of November 1<sup>st</sup>, NEI has supported, through its own grant-making and partnerships with other resources, more than 1,600 companies in the greater Detroit area, giving out 215 grants totaling more than \$93 million.<sup>1</sup> The impact of this investment is far-reaching for the region. NEI contracted with the Upjohn Institute for Employment Research to estimate the impact of its investment on the greater Detroit regional economy. The purpose of this analysis is to estimate the number of jobs created—both directly by the organizations supported by NEI and indirectly by the impact those jobs have in creating additional jobs across the region.

Of course, employment is not the only yardstick for measuring NEI's impact on the region's entrepreneurial environment. NEI's awards have also generated more than 700 patents and inventions, exposed 160,000 individuals to entrepreneurial services, and helped to develop 1.1 million square feet of physical space to support entrepreneurial activities. This study measures only NEI's impact on jobs and does not measure or apply multipliers to other important aspects of NEI's work, such as leveraged investment or placemaking that has activated space for entrepreneurs in the region. However, the importance of restoring jobs to the region is paramount, and this analysis estimates the role NEI played in helping with the increase in net employment observed since 2010.

Labor markets are typically very dynamic, and the Detroit labor market is no exception. Jobs are constantly being created as new businesses are formed, existing businesses expand, or firms move into an area. At the same time, jobs are destroyed as businesses close or move elsewhere or

<sup>&</sup>lt;sup>1</sup> As reported to Upjohn by NEI.

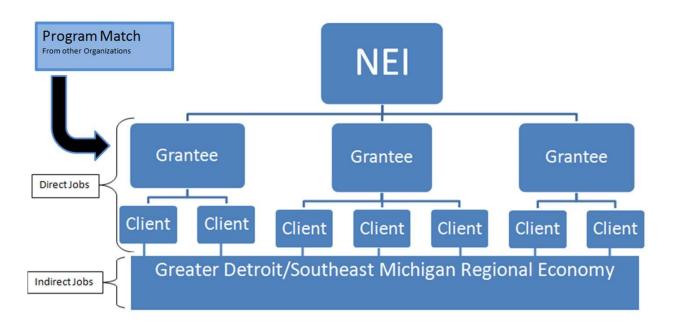
simply contract in the face of tough competition or slow economic growth. Therefore, even though some businesses, and more broadly some sectors, may be hiring workers, other businesses and sectors may be shedding employees. One must keep in mind that an increase in jobs attributed to NEI's support may be offset to some degree, or even completely, by the loss of jobs by organizations that are outside of NEI's influence. Consequently, it could be the case that although NEI is successful in supporting a substantial increase in the number of jobs in the region, the Detroit-area labor market is so large that other factors may mitigate the overall net employment effect of NEI's efforts.

Estimates produced by the Upjohn Institute show that organizations supported by NEI were responsible for the creation of 7,468 direct jobs and that these jobs in turn created an additional 10,840 indirect jobs, totaling 17,490 jobs. The largest industry group impacted by NEI was Professional, Scientific, and Technical Services, which follows from NEI's focus on funding activities related to foundational infrastructure to support entrepreneurs engaged in innovative activities, typically related to scientific and technical areas. The estimates reflect the employment impact of NEI grants awarded from January 2010 to August 2015 on Wayne County and the surrounding counties of Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw.

Estimates of the number and type of direct jobs were derived from the final reports of NEI grantees in which they were asked to determine the number of jobs created by the organizations they assisted. Upjohn staff interviewed grantees that reported large numbers of jobs created and NEI staff to help verify the accuracy of the estimates. Upjohn staff used a standard econometric model from Regional Economic Models, Inc. (REMI) to estimate the number of indirect jobs based on the number and type of direct jobs. Indirect jobs are created from the activities generated by the increase in income within a region that results from more people working and by some earning higher wages from an increase in direct jobs. The quality of jobs depends upon their full-time status, earnings, benefits, and duration. Unfortunately, there is no direct information from NEI grantees or other sources about these attributes. Grantees do report the industry classifications of the organizations assisted by NEI grantees. From this information, Upjohn staff assumed that jobs created by these organizations paid the average earnings of jobs in that particular industry. Job duration was considered by examining the resources available to organizations to support the jobs. Many of the direct jobs were created by entrepreneurs, and the average life expectancy of businesses formed by entrepreneurs is relatively short, although those entrepreneurs who are successful can remain employed and hire additional workers far into the future.

# **NEI's Employment Effect**

As illustrated in Figure 1, NEI's estimated effect on job creation starts with giving grants to organizations in Southeast Michigan. The grant recipients, which number 28 for the purposes of this study, use these funds to assist other local organizations that typically engage in some sort of entrepreneurial activity.<sup>2</sup> Grantees may also receive additional funds from other grant-making entities in the form of matched funds or other arrangements, which they may also pass on to these supported organizations. The organizations receiving assistance from NEI grantees may also receive additional resources through loans from banks, government programs, and other sources, as well as receive revenue from their own operations. These sources of funds, which are listed in Appendix B, are available to support job creation, although not all the funds are used for that purpose. The number of jobs created by grantees directly, and the number of jobs created by the organizations assisted by the grantees, are considered direct job creation.



#### Figure 1: The Influence of NEI on Job Creation in the Greater Detroit Area

The jobs created by NEI through grantees and supported organizations have a ripple effect throughout Southeast Michigan. The additional new jobs increase the buying power in the region through the earnings received by those who hold those jobs. The additional income is used to purchase goods and services, much of which are sold and produced within Southeast Michigan. This round of job creation in turn requires additional jobs in those sectors to meet the higher demand for goods and services created from the first round of job creation. The multiple rounds

<sup>&</sup>lt;sup>2</sup> The 28 organizations are the grantees that reported the number of jobs created by organizations they assisted and are responsible for most of the jobs created by the NEI initiative. A few other grantees may have added to the jobs created but since they did not account for the number of jobs created they were not included in the estimates.

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of job creation within a local economy are typically estimated by an employment multiplier, which varies by region and sectors involved. The Upjohn Institute used a standard regional econometric model from Regional Economic Models, Inc. (REMI) to estimate the multiplier for Southeast Michigan.

As Figure 1 depicts, the number of jobs directly created by the supported organizations and NEI grantees and the number of jobs created indirectly through the ripple effect are considered as the total employment effect of NEI.

# **Estimation Approach**

The Institute's approach to estimating the number of jobs created by NEI's grant-making follows the two-step process of job creation described in the previous section. The first step identified as precisely as possible the number and type of jobs created by organizations that received grants directly from NEI and from organizations that were supported by NEI grantees. The second step used REMI to determine the impact of the direct job creation on other jobs in the economy through multiplier effects.

### **Direct** Jobs

Direct jobs are defined as the jobs created by organizations that received grants from NEI grantees, and by organizations (clients) that received support from NEI grantees (refer to Figure 1).

The initial estimate of the number of jobs created came directly from NEI grantees. NEI asked grantees to submit a final report that included an estimate of the number of jobs created by the organizations they supported during the funding period. Twenty-eight grantees reported the number of jobs created within their own organization and the organizations they supported. For purposes of this study, we used only the 28 organizations to determine the number of direct jobs created, since it was not possible to ascertain the number of jobs created by any of the other grantees. NEI staff confirmed that the 28 grantees included in the study were responsible for most if not all of the jobs created as a result of NEI funding. The period for which we counted jobs created was from 2010 until the funding ended or through August 2015, whichever is the latest.

Since the initial estimates were self-reported, the next step in the process of determining direct jobs was for Upjohn staff to interview the staff of grantee organizations and of NEI. Since indepth interviews of all 28 grant recipients were outside the scope of this study, it was decided to interview the group of grantees that reported the greatest number of jobs created.

To begin the vetting process, the grantees were divided into three groups according to the reported number of jobs created. Table 1 lists the organizations that reported no more than 99 jobs created, Table 2 identifies organizations that reported from 100 to 499 jobs created, and Table 3 includes the organizations that initially reported more than 500 jobs created, with a few alterations. After interviewing the staff of organizations listed in Table 3, the job estimates changed for some organizations for various reasons. In addition, NEI asked the Upjohn researchers to interview a few organizations that initially reported fewer than 500 jobs created. Therefore, Table 3 reflects the results of this process by including all those organizations that were determined from the interviews.

Interviews were conducted during the months of September and October 2015. To provide a systematic approach to vetting the number of jobs created as reported by the NEI grantees, Upjohn staff followed a series of questions designed to ascertain the correct number of jobs created, to identify within what industry or industries those who received assistance from NEI

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grantees (clients) operate, and to determine whether those who received assistance made it to the marketplace. The interviews helped to clarify the job creation numbers reported by NEI grantee clients in their final reports to NEI. Particular care was taken to make sure jobs were not counted twice or indirect job estimates were not included in direct job counts. Upjohn staff also asked about the amount and nature of funding received.

It should be noted that the interviews also revealed many innovative activities undertaken by these organizations that support entrepreneurs and small businesses, which clearly impact the region's economy but in ways that are not easily quantifiable into job creation estimates. Many of these organizations are working to provide entrepreneurial opportunities to people who have not traditionally had access to the knowledge, marketing, access to capital, and networks that are necessary to opening a new business. The employment impacts of these significant activities are not explicitly included in the direct job estimates, even though these activities influenced the number of jobs included in the analysis.

The interviews led to a few changes in the initial job creation estimates found in the final reports. Of those organizations listed in Table 3, Invest Detroit's numbers were not used in the final estimate because it was ascertained from the interviews that the employment effects of its clients were already included in the employment estimates reported by other clients. Also, Ann Arbor Spark's numbers were dramatically reduced from what was included in its final report, because its NEI-funded efforts were determined to be relatively smaller. Another reason for reducing Ann Arbor Spark's numbers was that it included employment of the Michigan Life Sciences Incubation Center, which is a stand-alone project.

Organization	Jobs
Arab Community Center for Economic & Social Services (ACCESS)	85
Detroit Microenterprise Fund	49
Eastern Market Corp	5
Inforum	23
MEDC - Michigan Life Science Incubator Center (MLSIC)	99
Oakland University - MacombOU Incubator	82
Southwest Solutions - PonyRide	53
UCCA (MDI) Sugar Hill Arts District	85
Upwardly Global	5
Venture For America	15
Wayne State University - Tech Commercialization	35
Total	536

Table 1: Direct Job Im	pact of Organizations	with Less Than	100 Jobs Created
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#### Table 2: Direct Job Impact of Organizations with 100 to 499 Jobs Created

Organization	Jobs
Detroit Economic Growth Corp D to D	161
Detroit Economic Growth Corp (DEGC)	246
NEIdeas grants (32)	153
Southwest Housing Solutions - ProsperUS	226
Urban Entrepreneurship Program (UEP)	352
Walsh Launchpad	201
Total	1,339

Organization	Jobs
Ann Arbor Spark	42
Automation Alley	768
Bizdom	145
College for Creative Studies (CCS) building	986*
Detroit Development Fund	248
Downtown Detroit Partnership- BUILD	100
Invest Detroit	1,563**
Michigan Women's Foundation	72
Midtown Development, Inc. (MDI)	850
NextEnergy	307
WSU – TechTown	1,927***
Grantee total employment	147
Total	5,592

**Table 3: Direct Job Impact of Interviewed Organizations** 

\*Includes temporary construction jobs

\*\*Not used in these analysis

\*\*\*Verified using interviews and External Grant Evaluation Report, March 2012

After the interview process, it was determined that 7,468 jobs were created directly by NEI grantees and the organizations they supported. A large majority of these jobs were created through relatively few grantees. The 10 grantees listed in Table 3 created 5,592 jobs, which accounted for 70 percent of the direct jobs. TechTown, alone, is attributed with creating 1,927 jobs. The jobs attributed to the College for Creative Studies include the roughly \$37 million in construction costs, which resulted in more than 800 temporary construction jobs.

### Further Considerations in Estimating Direct Jobs

In addition to the accuracy of the self-reported estimates, the source of direct job estimates presented two additional estimation issues. First, it was not possible to ascertain from the final reports submitted by the grantees precisely when and for how long the created jobs remained in existence. Second, it was not possible to glean from the final reports the importance of NEI funding in creating the jobs.

#### Job Duration

The final reports submitted by NEI grantees did not indicate the duration of jobs created by the organizations the grantees assisted. Rather, the grantees reported only the number of jobs created by supported organizations during the period of the grant received from NEI. Since most grants spanned the period from 2010 through 2015, the total number of direct jobs were counted as all jobs reported as being created during that time. For instance, if an organization reported that 100 jobs were created during the period it received funding from NEI or support from the grantee, we counted the entire 100 jobs as direct jobs, even though one could not determine whether the jobs were in place for the entire six-year period (2010-2015) or for only one year out of the five. The only exception was construction spending mentioned in Table 3, which is known to be temporary.

Furthermore, not knowing the year the job was created or the length of time it was in place, all the jobs created during the six-year period were counted as occurring in one year. Consequently, if a grantee created 20 jobs in each of five years, and each job lasted only one year, the total number of jobs created was considered to be 100. This approach would clearly overestimate the number of jobs created if one were to take a snapshot of the number of jobs created in any one of the five years of the grant. On the other hand, it would accurately estimate the number of jobs created in each of the five years, lasted for at least the duration of the grant. At the fifth year of the grant, the actual number of jobs created would be 100. One can think of many scenarios regarding the timing and duration of job creation. Unfortunately, without any knowledge of this timing or duration of the job, Institute researchers decided to use a straightforward approach of counting all jobs reported, after vetting, as occurring within one year. Therefore, in order to estimate the number of indirect jobs created, the total number of jobs directly created were entered into the econometric model as if they all occurred in one year, and lasted only one year.

### Attributing the Importance of NEI Funding to Jobs

A second issue in estimating the number of direct jobs relates to an acceptable way to attribute the jobs created to NEI funding. The question is whether NEI should take credit for all jobs directly created by organizations that received funding and support from NEI grantees. For instance, organizations may have leveraged NEI funds with funds from other sources to cover the cost of creating the jobs they reported to NEI as having been created under the NEI grant. In this way, NEI's influence may be overstated. On the other hand, the influence of NEI may extend beyond direct funding. For example, NEI has a large network of funders and other resources that are outside of the core members of NEI but that provide additional funding and technical assistance to the same organizations that receive NEI grants. Consequently, even though NEI may not fund directly the entire revenue received by an NEI-associated organization, NEI may have been instrumental in connecting that organization with other funders and technical assistance. Without the initial investment by NEI and its connections with other funding organizations, additional funding may not have been forthcoming.

For these reasons, it was decided not to apportion job creation by the percentage of an organization's revenue funded by NEI. The only exception was Ann Arbor Spark, which used NEI funding for certain activities outside the Detroit region, thus providing a clear line of demarcation.

### Quality of Jobs Created

When using job creation as a measure of the impact of economic development initiatives, such as the NEI initiative, the quality of jobs created is an important consideration. Quality typically relates to the wages and benefits received, the duration of the funded position, part-time or full-time status, and the opportunity for career advancement. Although the grantees did not report this information in their final reports to NEI, the information they provided, along with a few assumptions about the Detroit regional labor markets, offers some insight into the pay and duration of jobs.

In addition to the number of jobs creation, each NEI grantee provided the number of new companies formed resulting from the NEI initiative, the industry classification of those companies, and the general sources of funding for each organization. With that information, and assuming that the jobs created with NEI funds are competitive in the Detroit labor market, we used the industry pay averages to estimate average annual pay for the jobs in each sector. The weighted average of annual pay across all sectors in which the 7,468 jobs were created is \$44,000 per job. According to the Bureau of Labor Statistics, the average wage in the Detroit metro area for all occupations is \$48,600. As another reference, the annual pay for production workers is \$40,000. Therefore, the pay for jobs created is somewhere between the two reference points.

The duration of jobs was surmised by considering the funds available to support the jobs created. NEI recorded the funds received by each grantee, and the grantees reported the amount of matching funds received from other organizations and revenue generated by the clients. The funding sources and amount of funding are included in Appendix Table B. Knowing the amount of funds received by grantees (NEI awards as well as funds from other resources to support grantee programs) can provide an upper bound on the funds available to support the jobs initially created through NEI funding. For instance, assuming that all NEI funds and matching funds were used for job creation for the 28 grantees listed in this study, a total of \$235 million was initially available to support the jobs created. This total is the sum of the NEI investment and program match, less the known construction spending.<sup>3</sup>

Using the \$235 million as a starting point and assuming that the average pay is \$44,000 per year, this pool of funds could support 5,350 jobs for one year (\$235 million divided by \$44,000). Using our estimate of 6,650 jobs created, it appears that the \$235 million could support the 6,650 jobs (which also removes temporary construction jobs) for a little less than a year. Obviously, some positions last longer than a year and others last less than that time period, depending upon the circumstances of the organizations assisted by these funds. A follow-up study is proposed to ascertain how many organizations and jobs were sustained after the funding ended.

<sup>&</sup>lt;sup>3</sup> Obviously, some of the funds were used for other purposes, and some organizations may have had access to other means of paying for the jobs created. Furthermore, the organizations that were spawned from these funds generated their own revenues from the leveraged investment received and sales of the product or services around which the businesses were created.

# **Indirect Job Impact**

The final direct job count of NEI's impact was 7,468. The largest impacted industry was Professional, Scientific, and Technical Services, since many jobs in the incubator, development, or build-out phase were classified into this industry. These direct jobs in turn generated additional indirect effects, as companies assisted by NEI funding purchased supplies from local vendors, and their employees purchased goods and services from local retailers and service providers. In addition, these activities generated tax revenues to support local governments, which created additional public-sector jobs.

To estimate indirect jobs, the Upjohn Institute maintains a regional econometric model that specifically estimates the number of jobs created for Wayne, Livingston, Macomb, Monroe, St. Clair, and Washtenaw counties. The model was constructed by Regional Economic Models Inc. (REMI) and contains three separate components that together capture the resulting total impact to the local economy due to a change in employment. These components are:

- An input-output model that estimates the impact of changes in interindustry purchases on the local economy. This component of the model captures the impact of an increase in orders to local suppliers of goods and services, as well as the impact of households increasing their purchases of consumer goods and services.
- A relative wage component that estimates the impact of the expected changes in the area's cost structure due to changes in economic activity. For instance, when a major employer moves into the area, it can cause wages to increase across almost all industries because of the increased demand for workers and other local resources. This boost in wages, while generating additional consumption expenditures, increases the cost of doing business in the area, making the area slightly less attractive to other industries. On the other hand, an increase in the number of skilled workers enhances the area's productivity, and thereby lowers the cost per unit of production, making the region more competitive.
- A forecasting and demographic component that forecasts the resulting changes in future employment and population levels due to a change in economic activity. The model generates an annual forecast that averages seasonal jobs by their duration. For example, four summer jobs that have durations of three months each are modeled as only one year-round job in REMI.

For the REMI model to estimate the number of indirect jobs created, it requires the number of direct jobs created and the industries in which those direct jobs were created. The industry designation is important so the model can estimate the expected earnings of each job, which determines the purchasing power of the direct jobs created. The model assumes that the jobs created in each industry pay the industry average wage for jobs in that industry in the Detroit metro area. As reported in the previous section the average annual earnings of the direct jobs created was estimated to be around \$44,000.

As shown in Table 4, 10,022 indirect jobs were created in the seven-county region of Southeast Michigan as a result of the direct jobs created from NEI funding and support. According to the

REMI model, more than 60 percent of the indirect jobs were created in Wayne County and the remainder was created in the other five counties. The retail trade sector created the largest number of indirect jobs of all the sectors listed in the table, which follows from the fact that much of the increased earnings of the additional workers is used for consumption goods.

The total number of jobs created through NEI funding was 17,490—7,468 direct jobs and 10,022 indirect jobs. Often this result is reported as an "employment multiplier," which is the ratio of the total employment impact to the direct employment impact. While this multiplier is not used in generating the total employment impact, it is a useful descriptive statistic.<sup>4</sup> For every job generated by NEI funding and assistance, another 1.8 jobs were indirectly created in the greater Detroit region, resulting in a multiplier of 2.33. As shown in Table 4, the bulk of the direct and indirect impacts were concentrated in Wayne County, but an additional 3,768 indirect jobs were created in the surrounding counties of the Detroit metropolitan area. The direct jobs were assigned in Wayne County, unless specifically known that they were in suburban counties. The REMI model contains cross-county linkages such that indirect effects can be felt in neighboring counties.

Table 4 shows the direct and indirect impact across major industries. The totals shown at the bottom of the table include industries that are not displayed in the table. The full industry impact is included in Appendix A.

The table also shows the direct and indirect impact across all industries, so the increase of 484 jobs in food services did not itself lead to the 338 indirect food service jobs across the region. The total of 516 indirect food service jobs is generated by the activity of all grantees. Industries such as health care saw large indirect employment impacts with no direct employment at all.

<sup>&</sup>lt;sup>4</sup> The REMI model generates a separate multiplier for each industry and distributes the indirect employment effects across all industries that are affected by that specific industry in which the direct employment effect is generated.

			Neighboring	
Industry	Direct	Wayne County	counties*	Total
Construction	1,189	561	462	2,212
Fabricated metal		91	54	145
Computer and electronic	159	21	6	186
Motor vehicles, bodies and trailers, and parts	840	165	9	1,014
Wholesale trade	3	259	148	410
Retail trade	431	695	551	1,677
Truck transportation	35	85	18	138
Internet publishing and broadcasting, etc.	145	7	35	187
Monetary authorities		115	56	171
Securities, investments		81	114	195
Real estate		122	159	281
Professional, scientific, and technical services	3,808	521	306	4,635
Management of companies and enterprises	30	210	21	261
Administrative and support services	207	589	314	1,110
Educational services	53	71	58	182
Ambulatory health care		304	275	579
Hospitals		85	43	128
Social assistance		193	81	274
Performing arts and spectator sports		92	60	152
Accommodation	82	126	15	223
Food services and drinking places	484	338	214	1,036
Repair and maintenance	2	118	74	194
Personal and laundry services		199	137	336
Membership associations and organizations		159	62	221
Government		410	121	531
Total	7,468	6,254	3,768	17,490

#### Table 4: Direct and Indirect Employment by Industry

Note: Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw are included as the neighboring counties. Only industries with an impact of at least 100 jobs are shown in the table.

# Appendices

Appendix Table A is the complete industry output from REMI, which shows employment change in the region. The columns include the direct impact, which are the input into the model and the indirect impact in Wayne County and the surrounding counties of Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw.

Appendix Table B depicts the total investment made by NEI to grantee organizations within this study and within the greater Detroit area between 2010 and 2015. The table also includes, program match, which reflects the additional dollars from other funding organizations leveraged by the initial NEI investment. The final column, client revenue, shows totals of revenue generated by grantee clients. The program match ratio shows how many total dollars of additional grants and funding was leveraged for each dollar of NEI investment. The leveraged investment ratio shows how many dollars of capital and revenue was generated for each dollar of NEI investment.

Industry	Direct Impact	Wayne County	Neighboring counties*	Total
Forestry and logging; fishing, hunting, and	mpact	1	1	10141
trapping		1	1	
Agriculture and forestry support activities		1	0	
Oil and gas extraction		11	2	1
Mining (except oil and gas)		1	3	
Support activities for mining		1	0	
Utilities	4	25	6	3
Construction	1,189	561	462	2,21
Wood product manufacturing		4	4	
Nonmetallic mineral product manufacturing		20	8	2
Primary metal manufacturing		36	5	4
Fabricated metal product manufacturing		91	54	14
Machinery manufacturing		52	27	7
Computer and electronic product manufacturing	159	21	6	18
Electrical equipment and appliance manufacturing		2	1	
Motor vehicles, bodies and trailers, and parts	840	165	9	1,01
manufacturing Other transportation equipment manufacturing		0	1	
Furniture and related product manufacturing		10	4	1
Miscellaneous manufacturing		4	8	1
Food manufacturing		11	3	1
Beverage and tobacco product manufacturing		9	2	1
Textile mills; Textile product mills		5	1	
Apparel manufacturing; Leather and allied product manufacturing		4	1	
Paper manufacturing		5	2	
Printing and related support activities		10	12	2
Petroleum and coal products manufacturing		6	0	
Chemical manufacturing		5	4	
Plastics and rubber product manufacturing		32	24	5
Wholesale trade	3	259	148	41
Retail trade	431	695	551	1,67
Air transportation		15	1	1
Rail transportation		3	0	
Water transportation		0	0	
Truck transportation	35	85	18	13
Couriers and messengers		28	7	3
Transit and ground passenger transportation		35	13	4
Pipeline transportation		1	0	
Scenic and sightseeing transportation; Support activities for transportation		19	5	2
Warehousing and storage		50	11	6
Publishing industries, except Internet		15	9	2
Motion picture and sound recording industries		3	5	-
Internet publishing and broadcasting; ISPs, search portals, and data processing; Other information services	145	7	35	18

# Appendix Table A: Direct and Indirect Job Impact Across Sectors

# 17 | Employment Impact of NEI on the Detroit Region and the State of Michigan

	Direct	Wayne	Neighboring	
Industry	Impact	County	counties*	Total
Broadcasting, except Internet		11	9	20
Telecommunications		11	20	31
Monetary authorities - central bank; Credit intermediation and related activities; Funds, trusts, and other financial vehicles		115	56	171
Securities, commodity contracts, investments		81	114	195
Insurance carriers and related activities		38	51	89
Real estate		122	159	281
Rental and leasing services; Lessors of nonfinancial intangible assets		44	13	57
Professional, scientific, and technical services	3,808	521	306	4,635
Management of companies and enterprises	30	210	21	261
Administrative and support services	207	589	314	1,110
Waste management and remediation services		17	4	21
Educational services	53	71	58	182
Ambulatory health care services	82	222	275	579
Hospitals		85	43	128
Nursing and residential care facilities		43	37	80
Social assistance		193	81	274
Performing arts and spectator sports		92	60	152
Museums, historical sites, zoos, and parks		5	0	5
Amusement, gambling, and recreation		3	28	31
Accommodation		208	15	223
Food services and drinking places	484	338	214	1,036
Repair and maintenance	2	118	74	194
Personal and laundry services		199	137	336
Membership associations and organizations		159	62	221
Private households		41	38	79
Government		410	121	531
*Livingston Macomb Monroe Oakland St Clair a	nd	410	121	55

\*Livingston, Macomb, Monroe, Oakland, St. Clair, and Washtenaw

Appendix Table B: Total and Matched Investment and Client Revenue (\$) by NEI Grantees						
	Total NEI					
Organization name	investment 800,000	Program match 557,922	Client revenue			
Arab Community Ctr (ACCESS)	800,000	557,922				
BANSEM - Ann Arbor Spark	675,000	1,675,000				
BANSEM - Auto Alley	975,000					
BANSEM - MacombOU Inc	675,000					
Bizdom	1,970,000	3,735,872				
College for Creative Studies, Argonaut Project	3,000,000	34,000,000				
College for Creative Studies, Detroit Creative Corridor Center	1,049,163	35,750,000	1,482,189			
Detroit Development Fund	2,250,000	5,189,500				
Detroit Economic Growth Association, CCIF	2,500,000	11,000,000				
Detroit Economic Growth Association, D2D	1,095,997					
Detroit Micro-Enterprise Fund	150,000	57,706	36,529			
Downtown Detroit Partnership, BUILD	115,000	50,000	140,000			
Eastern Market Corporation	500,000					
Inforum Center for Leadership	550,000	673,197				
Invest Detroit, Funds	11,000,000	2,250,000	58,871,000			
Invest Detroit/Ann Arbor Spark, AMIC	1,950,000	4,500,000				
Invest Detroit, Power Moves	50,000	550,000				
MEDC/Ann Arbor Spark, MLSIC	1,400,000					
Michigan Women's Foundation	426,000	1,321,500	4,408,000			
Midtown Detroit, Inc	2,753,250	5,500,750				
Midtown Detroit Inc (UCCA)	2,500,000	73,200,000				
NEIDeas, DEGC	430,000					
NEIDdeas (32 grants)	500,000					
NextEnergy	1,999,530	750,000				
Southwest Housing Solutions/SW Economic Solutions (ProsperUS)	1,035,000	50,000				

### Appendix Table B: Total and Matched Investment and Client Revenue (\$) by NEI Grantees

	Total NEI		
Organization name	investment	<b>Program match</b>	<b>Client revenue</b>
Southwest Housing	2,200,000	21,300,000	
Solutions/SW Solutions			
(Earn + Learn)			
Southwest Solutions	50,000	17,000	
(PonyRide)			
Urban Entrepreneur	3,000,000		
Partnership			
Venture for America	375,000	1,500,000	
venuite for America			
TechTown	16,550,000	4,774,106	11,504,246
	280.000	1 010 004	
Walsh College	280,000	1,019,094	
Wayne State University,	150,000		
Launch Pad			
TOTAL	62,953,940	209,421,647	76,441,964
TOTAL	, , , ,	1 1-	, , -