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# Minnesota Angel Tax Credit Program

2022 Annual Report  
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# Minnesota Angel Tax Credit Program 2022 Report

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# Minnesota Angel Tax Credit Program

## 2022 Report to the Minnesota Legislature

### Introduction

The Small Business Investment Tax Credit, commonly known as the Angel Tax Credit Program, was enacted into law on April 1, 2010 (Minnesota Statutes 116J.8737) and launched by the Department of Employment and Economic Development (DEED) in July 2010. The program was created to stimulate private investment in emerging businesses and to encourage job creation through the growth of those businesses.

In 2022, the program certified 79 businesses, 48 of which received investments from 196 certified individual investors and 212 investors in certified funds. These businesses received more than \$20.9 million in investment, resulting in \$5.2 million in credits for investors. Forty-seven percent of investment dollars spurred by the program reached minority- and women-owned businesses, as well as businesses located in Greater Minnesota. Demand for credits far exceeded availability and the program exhausted all \$5 million of available credits by May 31, 2022. Details on program activity are presented below.

The Angel Tax Credit Program encourages economic growth and job creation by providing tax incentives to encourage investment in early-stage companies. Investors in start-up businesses that are focused on developing or using proprietary technology in a high technology field or in specific industry fields, or in businesses that are developing a proprietary product, process, or service in specific industry fields, receive a 25 percent refundable tax credit (subject to annual maximums of \$125,000 per person or \$250,000 if married filing jointly) for their equity investments in qualified businesses. The granting of these credits supports the success of Minnesota's entrepreneurs, the growth of emerging businesses, and future job creation in Minnesota.

For businesses to qualify to participate in the program, they must meet the following requirements:

- Headquartered in Minnesota
- Minimum 51% of employees and payroll in Minnesota
- Fewer than 25 employees
- Minimum of 51% of the value of service contracts performed in Minnesota
- Pay employees wages of at least 175 percent of poverty level for a family of four on an annualized basis (the equivalent of \$23.35/hr in 2022); interns must be paid at least 175 percent of the federal minimum wage (the equivalent of \$12.69/hr)
- Not in operation for more than 10 years (20 years if engaged in the medical device or pharmaceutical fields that require FDA product approval)
- Not have securities that trade on a public exchange
- Not have received previous private equity investments of more than \$4 million
- Not have received private equity investments of more than \$4 million that have qualified for the credit
- Primary business activity of using or researching a proprietary technology in a high technology field or in agriculture, tourism, forestry, mining, manufacturing, or transportation
- Not be an excluded business type

For investors to qualify to participate in the program, they must meet the following requirements:

- A natural person (not a pass-through or corporate entity)
- An accredited investor or one who will only invest in exempt filings or one who is investing through the MNvest program
- Make a qualifying investment of at least \$10,000, or of at least \$7,500 if the business is veteran-owned, minority-owned, women-owned or located in Greater Minnesota
- And to be eligible for the credit, the investor may not be:
  - An officer or principal of the business being invested in
  - A 20% or more owner of the business being invested in (family interests combined)
  - A family member of either of the above

For investment funds to participate in the program, they must meet the following requirements:

- Minimum of three investors
- At least three investors of the fund must be natural persons
- Organized as a pass-through entity
- Make a qualifying investment of at least \$30,000
- Fund members are ineligible for the credit if an officer, principal, 20% or more owner (or a family member of any of these) of the business being invested in

The process by which businesses, investors and funds receive credits is as follows:

1. All those who wish to participate in the Angel Tax Credit Program—businesses, investors, and funds—must apply to DEED for certification. This certification process ensures that they meet the eligibility requirements of the program.
2. Before a qualifying investment is made, the transaction participants must apply for a tax credit allocation. This process ensures that the parties do not exceed their annual or program life limitations for the tax credit and that sufficient tax credits are available for the planned investment.
3. Once the investment is made, the transaction participants must submit evidence of the investment; this evidence provides proof that the investment actually took place and that the investor is entitled to the tax credit.
4. Finally, those who make or receive investments pursuant to the program must file annual reports. These reports ensure compliance with the requirement that the investor hold the investment for three years and with the requirement that the business continue to maintain over 51% of its payroll and employees in Minnesota. Failure to meet these requirements results in recapture of the credit.

## Businesses in the Program

Businesses must be certified by DEED to participate in the program before investors may make investments in the businesses that qualify for the tax credit. Of the 79 businesses that were certified in 2022, 48 received investments. Since the program’s inception in 2010, 554 businesses have benefited from the program.

Businesses filing annual reports (those who have received investments through the program within the last 5 years) indicated that, in 2022, they received a total of \$82,411,948 in investment outside the program. Details on the business investments made pursuant to the program since 2017 is displayed in Table 1; this information since the program’s inception is in Appendix F.

**Table 1 – Number of Businesses Certified and Invested In, Investment, and Credits Issued in the Angel Tax Credit Program, 2017-2022**

	2017	2018	2019	2020	2021	2022
<b>Number of businesses certified:</b>	163	No program	124	No program	146	79
<b>Number of businesses in which investments were made:</b>	101	No program	72	No program	83	48
<b>Investment made in businesses qualifying for credit:</b>	\$44,474,766	No program	\$39,875,431	No program	\$39,583,329	\$20,957,796
<b>Credit issued for these investments:</b>	\$10,723,963	No program	\$9,774,038	No program	\$9,890,026	\$5,238,455

For a list of 2022 certified businesses, see Appendix A.

For a list of 2022 certified businesses that received investments, see Appendix B.

### ***Industry Types***

In order to be certified to participate in the Angel Tax Credit Program, a business must be using proprietary technology to add value to a product, process or service in a qualified high-technology field; researching or developing a proprietary product, process or service in a qualified high-technology field; researching, developing or producing a new proprietary technology for use in the fields of agriculture, tourism, forestry, mining, manufacturing or transportation; or researching or developing a proprietary product, process or service for use in the fields of agriculture, tourism, forestry, mining, manufacturing or transportation.

The industries represented by certified businesses and by those businesses which received investment are displayed in Table 2 and Table 3; these tables use the industry types adopted by the Angel Tax Credit investment community.

**Table 2 - Industries Represented by Businesses Participating in Angel Tax Credit Program, 2022\***

Industry Type	Received Investments	Certified Only (No Investment)	Total
Medical Devices & Equipment	15	8	23
Software	14	6	20
Food/Drink	1	3	4
Biotechnology	7	2	9
Business Products & Services	0	2	2
Clean Technology	2	2	4
Consumer Products & Services	0	1	1
Education	2	1	3
Gaming	0	0	0
Healthcare Services	5	1	6
Other	1	3	4
Computers and Peripherals	0	1	1
IT Services	0	0	0
Internet/Web Services	0	0	0
Marketing/Advertising	0	0	0
Media/Entertainment	0	0	0
Electronics/Instrumentation	0	1	1
Sports	0	0	0
Financial Services	1	0	1
<b>TOTAL</b>	<b>48</b>	<b>31</b>	<b>79</b>

\* Standardized categories used by the Angel Tax Credit investment community; not necessarily reflective of business' primary activity for certification purposes

The top two types of businesses receiving investment in 2022—medical device and software—were the same two types as in 2013-2017, 2019, and 2021 (there was no program in 2018 and 2020).

**Table 3 – Investment in Industries Represented by Businesses Participating in Angel Tax Credit Program, 2022\***

Type of Industry	Total Investment	Total Credits
Medical Devices and Equipment	\$7,481,323	\$1,870,303
Food/Drink	\$1,825,000	\$456,250
Biotechnology	\$2,385,988	\$596,497
Other	\$695,000	\$173,750
Software	\$3,571,355	\$892,614
Clean Technology	\$1,800,000	\$450,000

Business Products & Services	-	-
Education	\$358,240	\$89,547
Media/Entertainment	-	-
Consumer Products & Services	-	-
Gaming	-	-
Electronics/Instrumentation	-	-
Healthcare Services	\$2,370,536	\$591,883
Sports	-	-
Internet/Web Services	-	-
Computers and Peripherals	-	-
IT Services	-	-
Marketing/Advertising	-	-
Financial Services	\$470,354	\$117,611
<b>TOTAL</b>	<b>\$20,957,796</b>	<b>\$5,238,455</b>

\*Standardized categories used by Angel Tax Credit investment community; not necessarily reflective of business' primary activity for certification purposes

### ***Business Locations and Demographics***

Pursuant to a 2014 statutory modification to the program, 50% (\$2.5 million) of angel tax credits are reserved for investments made in certified businesses located in Greater Minnesota, as well as for investments made in women and minority owned and managed businesses. Of the 48 certified businesses that received investment through the program in 2022, four were headquartered in Greater Minnesota (see the *Business Demographics* section below for information about women and minority businesses). Table 4 and table 5 give additional detail, Appendix C provides a map of business headquarters distribution, and Appendix F provides data since 2010 and 2012 respectively.

**Table 4 – Headquarters Location & Investment in Businesses Receiving Qualifying Investment Pursuant to the Angel Tax Credit Program, 2017-2022**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
<b>Number of Twin Cities Businesses</b>	91	No program	65	No program	77	44
<b>Number of Greater Minnesota Businesses</b>	10	No program	7	No program	6	4
<b>Total Businesses</b>	101	No program	72	No program	83	48
<b>Investment in Twin Cities Businesses</b>	\$34,601,494	No program	\$37,427,198	No program	\$38,289,789	\$18,176,811
<b>Investment in Greater Minnesota Businesses</b>	\$9,873,272	No program	\$2,448,233	No program	\$1,293,540	\$2,780,985
<b>Total Investment</b>	\$44,474,766	No program	\$39,875,431	No program	\$39,583,329	\$20,957,796

**Table 5 - Women and Minority Owned Businesses Receiving Qualifying Investment Pursuant to the Angel Tax Credit Program, 2017-2022**

Demographic Type	Number of Businesses Receiving Qualifying Investment						Investment Amount
	2017	2018	2019	2020	2021	2022	
Women owned & managed	11	No program	11	No program	16	13	\$4,788,566
Minority owned & managed	5	No program	7	No program	7	12	\$3,156,881
<b>Total</b>	<b>16</b>		<b>18</b>		<b>23</b>	<b>25</b>	<b>\$7,945,447</b>

***Business Insolvencies***

Businesses that have received investment (554 from 2010 through 2022) pursuant to the program also report when they cease operations and/or become insolvent, should this occur within five years of the last Angel Tax Credit Program investment. Table 6 lists the number of businesses that reported they no longer had operations and Appendix F provides data since the program’s inception.

**Table 6 – Number of Businesses that have Ceased Operations which participated in the Angel Tax Credit Program, 2017-2022**

	2017	2018	2019	2020	2021	2022
<b>Number of businesses no longer operating</b>	7	12	2	3	2	2

***Job Creation***

Businesses provide employment figures at the time of certification and in their year-end annual reports; only those businesses that received investments pursuant to the program file annual reports. Businesses have a five year annual reporting requirement and as a result, those businesses which—through the angel program—received investment only in 2010 through 2017, the first seven years of the program, no longer file annual reports and thus no longer report job creation numbers. Businesses that filed their annual report by February 27, 2023 reported that in 2022, net job creation for the year was 232 direct positions:

- 275 positions were newly created by 53 businesses
- 43 positions were eliminated by 21 businesses

Note that many businesses neither created nor eliminated any jobs in 2022. Since the program’s inception, participating businesses have created 2,494 direct jobs from the period 2010-2022.



Prior to 2013, businesses reported only on jobs they directly created, meaning only employees that they had on their payroll who received W-2s. Because legislators and other interested parties sought additional job creation information, beginning with 2013 business annual reports, DEED has asked businesses to report on the number of contract workers, consultants, agency staffers and others they have indirectly hired. These numbers, although not necessarily precise, provide a more complete indication of the total number of jobs created by these businesses and reflect the reality that start-up businesses frequently contract for workers before adding employees to their permanent payrolls.

Businesses that filed their annual report by February 27, 2023 reported that in 2022, they employed 627 contract workers (“indirect hires”). Table 7 provides employment information related to businesses that received investments pursuant to the program.

**Table 7 – Job Creation by Businesses Receiving Qualifying Investment Pursuant to the Angel Tax Credit Program, 2010-2022**

	<b>Direct Jobs Created</b>	<b>Number of Indirect Hires</b>	<b>Total Jobs Created</b>
<b>Job Creation in 2022</b>	232	627	859
<b>Total Direct Job Creation 2010-2022</b>	2,494		
<b>Estimated annual gross wages of 2,494 direct jobs*</b>	\$121,128,592		

\*at 2022 program wage minimum

### Number and Value of Credits Issued

Angel tax credits are issued directly to investors, whether they invest in qualified businesses individually or through an investment fund. In 2023, 408 credit certificates, valued at over \$5.2 million, were issued for 2022 investment; these certificates were issued to 196 individual investors and 212 investors in certified funds. In accordance with the Angel Tax Credit Program statute, any unused credit allocations are rolled forward to the following year’s program as displayed in Table 8 and Appendix F.

**Table 8 – Angel Tax Credits Appropriated, Available, and Issued, 2021-2022**

<b>Angel Tax Credits Appropriated, Available, and Issued</b>		
	<b>2021</b>	<b>2022</b>
Prior year rollover	\$225,969	\$316,881
Credit appropriation	\$10,000,000	\$5,000,000
Credits available	\$10,225,969	\$5,316,881
Credits used	\$9,890,026	\$5,238,455
Credits unused and rolled over to subsequent program year	\$316,881	\$78,426

An allocation of a tax credit means that an applied for amount of credits are reserved for a proposed investment transaction. These proposed transactions must occur within 60 days or by December 31, or

the credit allocation is cancelled; once the program has allocated all the year’s tax credits, any allocated but unused credits were rolled over into the next year.

Starting in 2015, the program has had two separate credit accounts. In 2022, \$2.5 million in credits were reserved for investments in minority- and women-owned and managed businesses and in businesses located in Greater Minnesota. The other half of the credits, \$2.5 million, were available for investments in any certified business. The reserved credits, as designated by statute, remain reserved until September 30, at which time they become available for investment in all businesses. In 2022, credits available for investment in all business were fully allocated on May 10, 2022. Reserved credits were fully allocated on May 31, 2022 and the program ceased accepting allocation applications.

## Recipients of Credits

Investors can participate in the program as individual certified investors, as investors in certified investment funds, or both. Investors must be certified before they make an investment in a certified business for that investment to qualify for the Angel Tax Credit. In 2022, 235 investors were certified, of which 196 actually made an investment in a qualified business. 11 funds were certified in 2022, 10 of which (representing 212 investors) made investments in a qualified business. See Table 9 for a complete breakdown and Appendix F for data since the program’s inception.

**Table 9 – Investors and Funds Participating in the Angel Tax Credit Program, 2017-2022**

<b>Investor Participation</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of individual investors certified	572	No Program	401	No Program	501	235
Number of individual investors who made investments	500	No Program	342	No Program	432	196

<b>Fund Participation</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of investment funds certified	29	No Program	20	No Program	22	11
Number of investment funds that made investments	28	No Program	18	No Program	16	10
Number of investors in funds that made investments	265	No Program	227	No Program	179	212

Minnesota’s Angel Tax Credit is a refundable credit, meaning that if an investor has limited or no Minnesota state tax liability, the difference or the whole credit amount is refunded to the investor. This feature of the program, which only a few of the approximately 24 states having angel programs, provides the opportunity for non-Minnesotans to make equity investments in Minnesota businesses and

be eligible for the credit. The average investment per investor in 2022 was \$51,360, including those investors who invested through a fund as displayed in Table 10.

**Table 10 – Average Investment and Credit Amounts  
Angel Tax Credit Program, 2017-2022**

	2017	2018	2019	2020	2021	2022
Average investment per investor	\$88,950	No Program	\$79,080	No Program	\$64,748	\$51,360
Average credit amount per investor	\$21,448	No Program	\$17,178	No Program	\$16,187	\$12,839

Minnesota’s Angel Tax Credit Program spurs substantial investment in Minnesota businesses by non-Minnesotans. In 2022, non-Minnesotan investors accounted for 31 percent of overall investment, this was a decrease of seven percentage points from 2021 and 2019. See Table 11 for additional information.

**Table 11 – Location of Investors Making Qualifying Investment  
in Qualified Businesses in the Angel Tax Credit Program, 2022**

	Minnesotans				Non-Minnesotans	
	Metro		Greater MN			
Number of Investors <sup>1</sup>	257	63%	25	6%	126	31%
Amount of Investment <sup>2*</sup>	\$10,940,485	55%	\$1,770,454	5%	\$8,243,846	40%

<sup>1</sup>Includes individual investors and fund investors, de-duplicated

<sup>2</sup>Includes individual investments and fund investments

For a list of 2022 certified investors, see Appendix D.

For a list of 2022 certified funds, see Appendix E.

### Number and Value of Credits Revoked

Investors and businesses may have their Angel Tax Credits revoked and recaptured if they do not meet post-investment program requirements. For 2022, \$536,569 credits have been revoked and \$2,378,196 credits are subject to possible revocation and/or repayment due to investors and businesses not meeting program requirements. Since the inception of the program in 2010, \$3,982,670 credits have been revoked of over \$126.3 million issued.

On April 1, 2022, \$245,250 in credits were revoked due to businesses, investors and funds failing to file their 2021 annual report. Six Businesses were subject to a penalty of the amount or portion of credits issued for investments made in that business because they failed to maintain at least 51% of their employees and/or payroll in Minnesota. The penalty total was \$275,631. The penalty amount for this

failure begins at 100% of the credits issued and declines 20% for each year for five years, after which the penalty ends. One investor failed to hold their investment for three years and had \$15,688 credits revoked.

For 2022, \$0 in credits are subject to revocation due to investors or funds failing to hold their investment for three years.

For 2022, \$135,000 in credits were exempted from the three-year investment holding requirement for meeting one of the five allowed exemptions. These exemptions are:

- The investment became worthless (3 investments, \$122,500 in credits)
- 80% of the business assets were sold (0 investments, \$0 in credits)
- The business was sold (1 investments, \$12,500 in credits)
- The business’ common stock began trading on a public exchange (0 investment, \$0 in credits)
- Death of the investor (0 Investment, \$0 in credits)

Seven businesses may be subject to a penalty of the amount or portion of credits issued for investments made in that business because they failed to maintain at least 51% of their employees and/or payroll in Minnesota. The penalty total is potentially \$261,155. The penalty amount for this failure begins at 100% of the credits issued and declines 20% for each year for five years, after which the penalty ends.

Nine businesses may be subject to repayment of the amount of credits issued for investments made in their business because they failed to file and pay their 2022 business annual report. The repayment total is potentially \$822,769. The repayment total amount for this failure begins at 100% of the credits issued and declines 20% for each year for five years, after which the repayment ends.

Ninety-three individual investor’s credits may be revoked because they failed to file and pay their 2022 investor annual report. The revocation total is potentially \$1,294,272.

## **Program Financing and Costs**

The Angel Tax Credit Program’s operations are funded by program fees. Fees are collected at the time of certification application and upon submission of annual reports. Fee income in 2022 was derived from the sources identified in Table 12.

**Table 12 – Fee Income  
Angel Tax Credit Program, 2022**

Investor certification fees (\$350):	\$86,100
Fund certification fees (\$1,000):	\$12,000
Business certification fees (\$150):	\$13,950
Annual Reports (\$100):	\$96,100
<b>Total</b>	<b>\$208,150</b>

Total program administration costs in 2022 were over \$233,605, as reported in Table 13. When revenue is in excess of expenses, it is carried forward each year to cover program future expenses and planned IT

enhancements to improve customer service. The 2022 costs reflects staffing needs, revisions to and maintenance of the program’s operations tracking database, and miscellaneous expenses. The program used approximately 2.0 FTE staff for most of 2022.

**Table 13 – Expenses  
Angel Tax Credit Program, 2022**

Staff Salaries	\$173,199.09
Information Technology Development	\$17,768.97
Indirect Costs, Agency & State	\$29,987.65
Other (space rental, utilities, etc.)	\$12,648.96
Total	\$233,604.67

### Program Changes

From its inception, the program has worked closely with stakeholders in the angel community to maximize emerging business growth in Minnesota. The community recommended minor adjustments to the program in 2011, and the department proposed and helped pass these changes:

- a lower, separate wage minimum for interns
- modified the membership requirements for funds, allowing funds to have non-natural person members
- increased the maximum equity qualification limitation for businesses from \$2 million to \$4 million
- In 2013, the department proposed, with community support, and the legislature passed four additional changes:
- increasing the years in operation maximum for medical device and pharmaceutical business requiring lengthy FDA approval from 20 years, up from 10 years for other businesses
- disqualifying business whose securities are publicly traded
- disqualifying investments that take place within 180 days of a liquidation event
- permitting the department to make public basic contact and descriptive information about businesses certified to participate in the program

In 2014, the department proposed increased funding of tax credits for the program. The legislature passed these changes:

- Increased tax credit funding from \$12 million to \$15 million per year
- Changed the program’s sunset from 2014 to 2016
- Added death of the investor as an additional exemption to the three year investment holding requirement
- Required the department to develop a plan to increase awareness of the program by businesses located in Greater Minnesota and women-owned and minority-owned businesses

In addition, the 2014 legislature passed changes that affected the program in 2015:

- \$7.5 million in tax credits were reserved for investments in targeted businesses (those located in Greater Minnesota and women-owned and minority-owned businesses) until September 30
- Expanded the types of businesses became eligible to participate in program, including those researching or developing a proprietary product, process, or service in the fields of agriculture,

tourism, forestry, mining, manufacturing, or transportation; this new type has no technology requirement, as do the other allowed types

- Officers, principals, and 20% or more owners, and their families, were made ineligible for the tax credit for investments in their business

The 2016 legislature made these changes to the program:

- Required for businesses to be certified that at least 51% of the value of their service contracts be performed in Minnesota
- Expanded investor certification eligibility to include investing through MNvest
- Reduced tax credit funding from \$15 million to \$10 million for 2017

The 2019 legislature made these changes to the program:

- Reduced the minimum investment from \$10,000 to \$7,500 for individual investors investing in businesses that are veteran-owned, minority-owned, women-owned or located in Greater Minnesota
- Reduced the annual report late filing penalty from \$500 to \$100 for annual report not filed by February 1 and authorized the revocation of credits granted to those who fail to an annual report by April 1

The 2021 legislature made these changes to the program:

- Provided tax credit funding of \$5 million for one year, 2022

## Partnerships

The department has developed strong partnerships with a number of organizations that promote angel investing and business development within Minnesota. The department actively works with the Launch Minnesota program, Minnesota Technology Association, Medical Alley, the Minnesota Cup, Gopher Angels, the University of Minnesota Venture Center, University Enterprise Laboratories (UEL), the Economic Development Association of Minnesota (EDAM) and other state and regional organizations seeking to facilitate the growth of the angel investment community in Minnesota.

## Closing

If you have any questions or comments regarding this report, please contact Stephen Wolff, Manager of Business Tax Benefits and Angel Tax Credit Program, at 651.259.7415 or [stephen.wolff@state.mn.us](mailto:stephen.wolff@state.mn.us), or Jeff Nelson, Executive Director of the Office of Business Finance, at 651.259.7523 or [jeff.m.nelson@state.mn.us](mailto:jeff.m.nelson@state.mn.us).

## Appendix A

### List of 2022 Qualified Businesses

The following businesses have been certified as Qualified Businesses under Minnesota Statute 116J.8737. This certification solely means that Minnesota Department of Employment and Economic Development (DEED) has found that each business meets the qualifications specified in Subdivision 3 of the statute and that each business is therefore eligible to participate in DEED’s Angel Tax Credit Program.

<b>Legal Name</b>	<b>County</b>	<b>Industry Type</b>
Activarium, LLC	Hennepin	Healthcare Services
Agitated Solutions, Inc.	Washington	Medical Devices and Equipment
Agitated Solutions, LLC	Washington	Medical Devices and Equipment
Anarus, Inc.	Scott	Software
APS Tax, LLC	Hennepin	Software
Aurora Concussion Therapy Systems, Inc.	Ramsey	Medical Devices and Equipment
Azuro Bio, Inc.	Hennepin	Medical Devices and Equipment
Beatrice Health LLC	Ramsey	Software
BenchK12 Inc.	Hennepin	Software
BetterTime Co	Ramsey	Software
Binary Bridge, SBC	Hennepin	Software
BioMagnetic Sciences	Hennepin	Medical Devices and Equipment
Bloom Standard, Inc	Ramsey	Medical Devices and Equipment
Blue Water Farms	Goodhue	Food/Drink
Brevity Inc.	Hennepin	Software
Call Light Health Inc.	Hennepin	Software
Civic Eagle	Ramsey	Business Products and Services
Clark Technology, LLC	Hennepin	Clean Technology
Crotega, LLC	Hennepin	Other
D'Avocado, Inc	Hennepin	Food/Drink
D2S Tech Ventures Inc	Hennepin	Internet/Web Services
Darcy Solutions, Inc.	Hennepin	Clean Technology
Davenport SAF-T Systems, LLC	Hennepin	Consumer Products and Services
Delve Health, Inc	Hennepin	Healthcare Services
DXD Ag Insights LLC	Olmsted	Software
Edwards RideCare Inc.	Dakota	Other
Ekwe.app LLC	Hennepin	Software
EmpowerU, Inc.	Hennepin	Education
Encore Medical, Inc.	Dakota	Medical Devices and Equipment
F2F, Inc.	Rice	Food/Drink
Forever Ware Inc.	Hennepin	Other

FreeNav, Inc	Ramsey	Electronics/Instrumentation
Gee Bioscience	Hennepin	Medical Devices and Equipment
GenEQTY	Hennepin	Software
Geneticure, Inc	Olmsted	Biotechnology
Glimpse Diagnostics LLC	Ramsey	Medical Devices and Equipment
GRIP Molecular Technologies, Inc.	Ramsey	Medical Devices and Equipment
Guardian School Security System SBC	Hennepin	Other
i-Lumen Scientific, Inc	Hennepin	Medical Devices and Equipment
inFormed Consent LLC	Hennepin	Healthcare Services
Innomedex, LLC	Hennepin	Medical Devices and Equipment
Juniper Health	Hennepin	Healthcare Services
LCP Medical Technologies LLC	Hennepin	Medical Devices and Equipment
LeagueOS Inc.	Hennepin	Software
LearnYour WorkLife Inc.	Hennepin	Business Products and Services
LifEngine Animal Health Laboratories Incorporated	Olmsted	Biotechnology
Lite Run Inc	Ramsey	Medical Devices and Equipment
Luminary Therapeutics Inc	Hennepin	Biotechnology
Melodi Health, Inc.	Hennepin	Medical Devices and Equipment
MORIA MINING COMPANY LLC	Washington	Internet/Web Services
My Logistics Solutions, Inc.	Hennepin	Software
MyFormulary, LLC	Hennepin	Software
Nanodropper Inc	Olmsted	Medical Devices and Equipment
Netzro SBC	Hennepin	Food/Drink
Neuraworx Medical Technologies, Inc.	Hennepin	Medical Devices and Equipment
NightWare	Hennepin	Medical Devices and Equipment
OfferingTree SBC	Ramsey	Software
Oncodea Corporation	Ramsey	Biotechnology
Pneumeric Inc.	Olmsted	Biotechnology
R7 Technologies Inc	Pope	Business Products and Services
Radwave Technologies Inc.	Ramsey	Medical Devices and Equipment
Respiratory Sciences Inc	Hennepin	Medical Devices and Equipment
Sanos Nutrition LLC	Polk	Biotechnology
Sarcio, Inc.	Dakota	Biotechnology
Sasya Inc	Ramsey	Biotechnology
SCOTT BROWN CONSULTING INC	Hennepin	Software
See A Star Labs, Inc	Hennepin	Software
Sentence Data Refinery Inc	Hennepin	Software
SHYLD Inc	Hennepin	Software
SoleSafe Inc	Dakota	Financial Services
Stratix Labs Corporation	Ramsey	Biotechnology
Subiomed, Inc.	Hennepin	Medical Devices and Equipment
Trio Effect, LLC	Carver	Healthcare Services
TypeDuo LLC	Ramsey	Computers and Peripherals



UPIR LLC	St. Louis	Clean Technology
UR TURN, SBC	Hennepin	Education
UzObi, Inc	Scott	Healthcare Services
VirusTech Systems, Inc.	Hennepin	Medical Devices and Equipment
Visana Health, Inc.	Hennepin	Software
Visionx LLC	Hennepin	Medical Devices and Equipment
Visyn, Inc.	Hennepin	Education
We Sparkle Co.	Hennepin	Software
WTS LLC	Ramsey	Clean Technology
xDot Medical Inc	Hennepin	Medical Devices and Equipment
Yourpath Inc	Ramsey	Software

## Appendix B

### List of 2022 Credits Issued

The following businesses have received investments in 2022 that qualified for the Minnesota Angel Tax Credit pursuant to Minn. Stat. 116J.8737. Issuance of these credits solely means that Department of Employment and Economic Development (DEED) has found that the investment meets the requirements specified in the statute and that the qualified investor or qualified fund's investors are being awarded tax credit certificates under DEED's Angel Tax Credit Program. Minn. Stat. 116J.8737, Subd. 8, paragraph (a) designates this as public data.

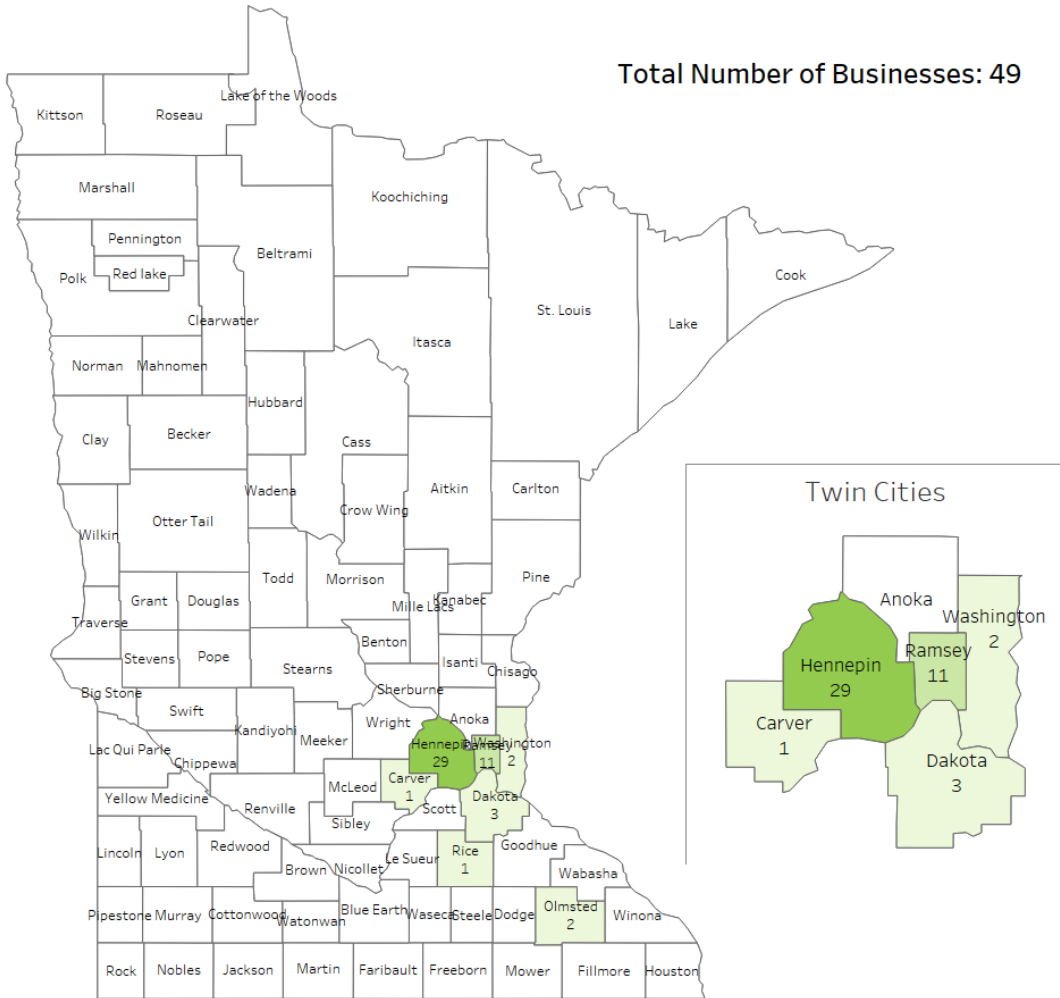
<b>Business Name</b>	<b>Investment Amount</b>	<b>Tax Credit Amount</b>
Activarium, LLC	\$400,000	\$100,000
Agitated Solutions, Inc.	\$2,163,595	\$540,883
Agitated Solutions, LLC	\$700,000	\$175,000
APS Tax, LLC	\$60,000	\$15,000
Azuro Bio, Inc.	\$240,000	\$60,000
Beatrice Health LLC	\$225,000	\$56,250
Bloom Standard, Inc	\$215,740	\$53,922
Brevity Inc.	\$145,000	\$36,250
Call Light Health Inc.	\$125,000	\$31,250
Darcy Solutions, Inc.	\$1,700,000	\$425,000
Delve Health, Inc	\$440,536	\$109,383
Ekwe.app LLC	\$250,000	\$62,500
EmpowerU, Inc.	\$158,240	\$39,547
Encore Medical, Inc.	\$830,000	\$207,500
F2F, Inc.	\$1,825,000	\$456,250
Gee Bioscience	\$600,000	\$150,000
GenEQTY	\$100,000	\$25,001
Geneticure, Inc	\$735,000	\$183,750
GRIP Molecular Technologies, Inc.	\$725,000	\$181,250
Guardian School Security System SBC	\$695,000	\$173,750
i-Lumen Scientific, Inc	\$250,000	\$62,500
inFormed Consent LLC	\$50,000	\$12,500
Innomedex, LLC	\$200,000	\$50,000
Juniper Health	\$1,335,000	\$333,750
LeagueOS Inc.	\$421,207	\$105,077
LifEngine Animal Health Laboratories Incorporated	\$50,000	\$12,500
Luminary Therapeutics Inc	\$220,000	\$55,001
Melodi Health, Inc.	\$200,000	\$50,000

My Logistics Solutions, Inc.	\$1,225,000	\$306,250
OfferingTree SBC	\$574,000	\$143,500
Oncodea Corporation	\$220,988	\$55,246
Radwave Technologies Inc.	\$45,000	\$11,250
Respiratory Sciences Inc	\$49,500	\$12,375
Sarcio, Inc.	\$285,000	\$71,250
Sasya Inc	\$150,000	\$37,500
See A Star Labs, Inc	\$31,960	\$7,990
Sentence Data Refinery Inc	\$93,200	\$23,300
SHYLD Inc	\$50,000	\$12,500
SoleSafe Inc	\$470,354	\$117,611
Stratix Labs Corporation	\$725,000	\$181,250
Subiomed, Inc.	\$180,000	\$45,000
Trio Effect, LLC	\$145,000	\$36,250
UR TURN, SBC	\$200,000	\$50,000
Visionx LLC	\$957,488	\$239,373
We Sparkle Co.	\$100,003	\$25,002
WTS LLC	\$100,000	\$25,000
xDot Medical Inc	\$125,000	\$31,250
Yourpath Inc	\$170,985	\$42,744

# Appendix C

## Maps of Business Headquarters Distribution

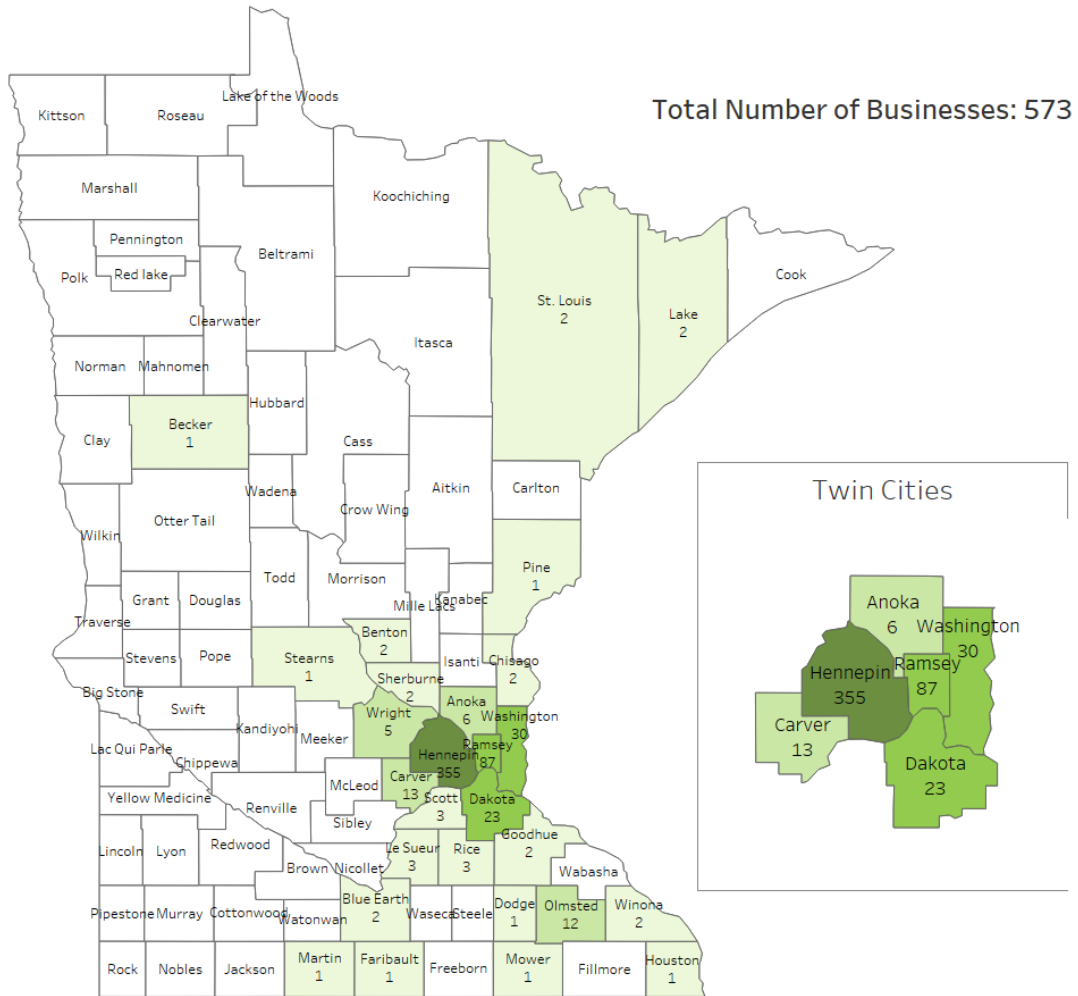
Business Receiving Tax Credits (2022)



Created by Jocelyn Rousey  
March 2023



## Business Receiving Tax Credits (2010-2022)



Created by Jocelyn Rousey  
March 2023



## Appendix D List of 2022 Qualified Investors

The following investors have been certified as Qualified Investors under Minnesota Statute 116J.8737. This certification solely means that Minnesota Department of Employment and Economic Development (DEED) has found that each investor meets the qualifications specified in Subdivision 3 of the statute and that each investor is therefore eligible to participate in DEED's Angel Tax Credit Program.

Nick Abel	Ryan Benson	Linnea Castro
Thomas Ademite	Mark Berens	Paul Cifelli
Ryan Agnew	Laurence Betterley	William Clark
Aaron Ahlquist	Greg Blasko	Kelly Connolly
Daniel Ahlquist	Aric Blom	Kristopher Corts
Susan Ahlquist	Bruno Bornsztein	Daren Cotter
Christopher Akerley	Tamara Bratland	Jacob Creydt
Rick Albin	Rebecca Brindle	Kim Culp
John Ambrose	Doug Brown	Tressa Daily
Jamie Anderson	Brett Bullock	Phillip DeBruzzi
Udaysekhar Anumalachetty	Scott Bullock	Jesse Demmers
Gregory Aplin	Timothy Bullock	Carl Dickerson
Michael Arneson	Benjamin Burgum	Michael Dickson
Katherine Baarsch	Ryan Burke	Sarah DiFrancesco
Mary Jo Baarsch	Frederick Burks	David Dikken
Vinayak Bapat	Barry Butzow	James Dixon
Conrad Barski	David Cameron	Lisa Drake
Jared Bartels	Elizabeth Canis	Richard Duffy
Jason Bauer	Brian Castro	Thomas Dungan
	John Castro	Scott Dylla

Joan Exley-Zimmerman	Ryan Hess	Jean Kummer
Theodore Ferrara	Patrick Hietpas	Andre L'Heureux
Stewart Flink	Curtis Hill	Lynn Langit
Daniel Flood	Matthew Hoffman	Gregory Langmo
John Folkestad	Craig Holden	Jeffrey Larson
Michael Gallagher	Ann Holder	Jeff Lendino
Jacqueline Gamblin	Amy Holley	Kent LoPrete
Morgan Geary	Phillip Holmer	David Loseke
William Geimer	Patricia Hoyt	Bryan Loving
Hendrik George	Pedram Illbeigi	Donald Lowery
Bahair Ghazi	Ronald Jackson	James Lubratt
Nagdeep Giri	Nicholas Jacoby	Edward Ludwig
James Givan II	Kenneth Jarvis	Elwin Mack
Franck Gougeon	Thomas Jasper	Justin Mack
John Grant	Samuel Jimenez	Brett MacKinnon
Heather Greene	Paul Johnson	Roderick Maddox
Donald Griffin	Todd Johnson	Rahul Mahajan
Jeff Grobstein	Walter Jones	Daniel Mahlik
Patricia Gulbrandsen	Richard Jorgensen	Kyle Mansfield
Matthew Gulbransen	Aaron Kardell	Marshall Masko
Ryan Gutzmer	Ryan Kasprzak	Gerald Mattys
Laura Hacker Dorsch	Carson Kipfer	Richard McCormick
George Hadjiyanis	Steven Klongerbo	John McIntosh
Paul Hartman	Susheel Kodali	Phillip Minerich
Elizabeth Hawn	Chester Kozak	Thomas Mingo
Thomas Hedge	Mark Kranz	Delores Mordorski
Warren Herreid II	Paul Kroes	Meka Morris

Craig Mossberg	Edwardo Rikprashad	Terrence Shaughnessy
Rocco Musumeche	David Riviere	Gillian Sherer
Wendy Nelson	William Riviere Jr	Tony Shortridge
Lisa Neumann	Daniel Roach	Stephen Sigmond
Jason Nordlund	Todd Robinson	Gregory Simon
Nicholas Novak	Wade Rosen	Michael Simon
David Nygren	Patrick Rosenstiel	Neil Smithson
Todd O'Bert	Jenell Ross	Jerome Smyth
John O'Connor	Alan Roth	Riley Smyth
Mark OBrien	David Rubenzer	Scott Solem
Paul Olin	Justin Rubenzer	Jeffery Sornsin
James Olson	Derek Rucker	Jason Spanheimer
Layton Olson	Christopher Rust	Michael Spanheimer
Paul Olson	Julie Sachs	Nathan Spanheimer
Gary Ostrand	Michael Salmen	Ryan Spanheimer
Constance Owens	David Sandberg	Joe Sriver
John Owens	Kerry Sarnoski	Andrew Steiner
Carla Pavone	Rachael Scherer	Bruce Steiner
Earl Pederson	Arlin Schieve	Cassidy Steiner
Neal Pederson	Perry Schmidt	Frederick Steiner
Julie Pierce	Rachael Schmillen	Mclvor Steiner
John Pollock	Alissa Schneider	Richard Stephen
Bobby Portis	Ron Schutz	George Stewart
Kelly Prchal	Keith Schweiger	William Stewart
Lantz Price	Joel Seleskie	Amy Stielow
James Rappe	Naveed Shaik	Karl Struble
Thomas Rassieur	Thomas Sharpe	Jayne Suiter



Shawn Sullivan  
Samantha Sweeney  
Jeffrey Textor  
Richard Tucci  
Keith Tufte  
John Van Sickle  
Frederick Ventura  
Hugh Voigt  
Shelly Wall  
Craig Wallace  
Doyle Walls  
Lola Walters  
Chia Wang  
Jeff Webb  
James Wehmann  
Jeffrey Weness  
Thomas Wenman  
Seth Werner  
Ashley Wiesner  
Brian Wilcox  
Justin Williams  
Martin Wolf  
Audrey Ziebol  
Robert Ziebol  
Richard Zimmerman

## **Appendix E**

### **List of 2022 Qualified Funds**

Department of Employment and Economic Development (DEED) has found that each fund meets the qualifications specified in Subdivision 4 of the statute and that each fund is therefore eligible to participate in DEED's Angel Tax Credit Program.

CLE Luminary Investors LLC

VAXA LLC

GROOVE CAPITAL FUND I LP

LVCM Partners Fund I LP

Lema Investment Holdings, LLC

Norstar LLC

Traction Capital Focus Fund 1 LLC

Ettrick Woods Capital, LLC.

701 Fund 2, LP

Callanish Capital Partners LP

Southeast Minnesota Capital Fund II LLC

## Appendix F Supplemental Data Tables

The following tables supplement the data tables provided throughout this report. If available, these tables present data since the program's inception or the earliest date the data was collected.

**Table 1 – Number of Businesses Certified and Invested In, Investment, and Credits Issued in the Angel Tax Credit Program, 2010-2022**

	2010	2011	2012	2013	2014	2015	2016
Number of businesses certified:	112	176	190	193	183	182	187
Number of businesses in which investments were made:	67	113	117	128	110	114	105
Investment made in businesses qualifying for credit:	\$28,023,232	\$63,148,784	\$46,150,674	\$50,657,447	\$59,783,632	\$70,411,833	\$58,894,095
Credit issued for these investments:	\$7,005,808	\$15,787,156	\$11,415,751	\$12,365,229	\$13,841,673	\$15,542,608	\$14,723,711

	2017	2018	2019	2020	2021	2022
Number of businesses certified:	163	No program	124	No program	146	79
Number of businesses in which investments were made:	101	No program	72	No program	83	48
Investment made in businesses qualifying for credit:	\$44,474,766	No program	\$39,875,431	No program	\$39,583,329	\$20,957,796
Credit issued for these investments:	\$10,723,963	No program	\$9,774,038	No program	\$9,890,026	\$5,238,455

**Table 4 – Headquarters Location & Investment in Businesses Receiving Qualifying Investment Pursuant to the Angel Tax Credit Program, 2010-2022**

	2010	2011	2012	2013	2014	2015
<b>Number of Twin Cities Businesses</b>	62	100	109	122	102	101
<b>Number of Greater Minnesota Businesses</b>	5	13	8	6	8	13
<b>Total Businesses</b>	67	113	117	128	110	114
<b>Investment in Twin Cities Businesses</b>	\$26,248,232	\$50,260,689	\$43,892,174	\$49,339,446	\$51,655,622	\$64,46,333
<b>Investment in Greater Minnesota Businesses</b>	\$1,775,000	\$12,888,095	\$ 2,258,500	\$1,318,001	\$8,128,010	\$5,955,500
<b>Total Investment</b>	\$28,023,232	\$63,148,784	\$46,150,674	\$50,657,447	\$59,783,632	\$70,411,833

	2016	2017	2018	2019	2020	2021
<b>Number of Twin Cities Businesses</b>	95	91	No program	65	No program	77
<b>Number of Greater Minnesota Businesses</b>	10	10	No program	7	No program	6
<b>Total Businesses</b>	105	101	No program	72	No program	83
<b>Investment in Twin Cities Businesses</b>	\$53,180,010	\$34,601,494	No program	\$37,427,198	No program	\$38,289,789
<b>Investment in Greater Minnesota Businesses</b>	\$5,714,085	\$9,873,272	No program	\$2,448,233	No program	\$1,293,540
<b>Total Investment</b>	\$58,894,095	\$44,474,766	No program	\$39,875,431	No program	\$39,583,329

	2022
<b>Number of Twin Cities Businesses</b>	44
<b>Number of Greater Minnesota Businesses</b>	4
<b>Total Businesses</b>	48
<b>Investment in Twin Cities Businesses</b>	\$18,176,811
<b>Investment in Greater Minnesota Businesses</b>	\$2,780,985
<b>Total Investment</b>	\$20,957,796

**Table 5 - Women and Minority Owned Businesses Receiving Qualifying Investment Pursuant to the Angel Tax Credit Program, 2012-2022**

Demographic Type	Number of Businesses Receiving Qualifying Investment							
	2012	2013	2014	2015	2016	2017	2018	2019
Women owned & managed	6	14	15	10	12	11	No program	11
Minority owned & managed	4	8	8	13	7	5	No program	7
<b>Total</b>	<b>10</b>	<b>22</b>	<b>23</b>	<b>23</b>	<b>19</b>	<b>16</b>		<b>18</b>

Demographic Type	Number of Businesses Receiving Qualifying Investment								Investment Amount
	2020	2021	2022						2022
Women owned & managed	No program	16	13						\$4,788,566
Minority owned & managed	No program	7	12						\$3,156,881
<b>Total</b>		<b>23</b>	<b>25</b>						<b>\$7,945,447</b>

**Table 6 – Number of Businesses that have Ceased Operations which participated in the Angel Tax Credit Program, 2010-2022**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
Number of businesses no longer operating:	1	4	11	12	10	4	7	12	2	3	2	2	70

**Table 8 – Angel Tax Credits Appropriated, Available, and Issued, 2010-2021**

2010 credit appropriation:	\$11,000,000
2010 credits issued:	\$7,005,808
*2010 credits unused and rolled over to 2011 program:	\$3,994,192
2011 credit appropriation:	\$12,000,000
2011 credits available:	\$15,994,192
2011 credits issued:	\$15,787,196
2011 credits unused and rolled over to 2012 program:	\$206,996

2012 credit appropriation:	\$12,000,000
2012 credits available:	\$12,206,996
2012 credits issued:	\$11,415,751
2012 credits unused and rolled over to 2013 program:	\$791,245
2013 credit appropriation:	\$11,900,000
2013 credits available:	\$12,691,245
2013 credits issued:	\$12,365,229
2013 credits unused and rolled over to 2014 program:	\$356,016
2014 credit appropriation:	\$12,000,000
2014 additional credit appropriation:	\$3,000,000
2014 credits available:	\$15,356,016
2014 credits issued:	\$13,841,673
2014 credits unused and rolled over to 2015 program:	\$992,586**
2015 credit appropriation:	\$15,000,000
2015 credits available:	\$15,992,586
2015 credits issued:	\$15,542,608
2015 credits unused and rolled over to 2016 program:	\$449,978
2016 credit appropriation:	\$15,000,000
2016 credits available:	\$15,449,978
2016 credits used:	\$14,723,711
2016 credits unused and rolled over to 2017 program:	\$726,267
2017 credit appropriation:	\$10,000,000
2017 credits available:	\$10,726,267
2017 credits used:	\$10,723,963
2017 credits unused and redistributed:	\$2,304
2018: No program	
2019 credit appropriation:	\$10,000,000
2019 credits available:	\$10,000,000
2019 credits used:	\$9,774,038
2019 credits unused and rolled over to 2021 program:	\$225,962
2020: No Program	
2021 credit appropriation:	\$10,000,000
2021 credits available:	\$10,225,969
2021 credits used:	\$9,890,026
2021 credits unused and rolled over to 2022 program:	\$316,881

2022 credit appropriation:	\$5,000,000
2022 credits available:	\$5,316,881
2022 credits used:	\$5,238,455
2022 credits unused and rolled over to 2022 program:	\$78,426

\* Because the 2010 program was in operation for only six months, there was a significant carryover of credits from 2010 to 2011.

\*\*Adjusted to account for past years post –closing under and overages

**Table 9 – Investors and Funds Participating in the Angel Tax Credit Program, 2010-2022**

<b>Investor Participation:</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of individual investors certified	275	623	511	484	572	619	655	572	No Program	401	No Program	501	235
Number of individual investors who made investments	258	563	465	452	485	538	555	500	No Program	342	No Program	432	196

<b>Fund Participation:</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Number of investment funds certified	5	21	19	21	29	27	26	29	No Program	20	No Program	22	11
Number of investment funds that made investments	4	21	17	20	27	23	19	28	No Program	18	No Program	16	10
Number of investors in funds that made investments	32	195	191	199	327	279	251	265	No Program	227	No Program	179	212

**Table 10 – Average Investment and Credit Amounts  
Angel Tax Credit Program, 2010-2022**

	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Average investment per investor:	\$96,300	\$83,310	\$73,723	\$80,665	\$50,028	\$86,183
Average credit amount per investor:	\$24,075	\$20,827	\$18,236	\$19,690	\$11,587	\$19,024

	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Average investment per investor:	\$73,160	\$88,950	No Program	\$79,080	No Program	\$64,748
Average credit amount per investor:	\$18,290	\$21,448	No Program	\$17,178	No Program	\$16,187

	<b>2022</b>
Average investment per investor:	\$51,359
Average credit amount per investor:	\$12,839