

LDFA REPORT 2022 — 2023

ANN ARBOR/YPSILANTI SMARTZONE

ANNUAL REPORT

231 COMPANIES
SERVED

101 JOBS
CREATED

44 COMPANIES
CREATED

\$128 M FUNDS
RAISED
INVESTMENTS & GRANTS

\$1.56 M

DIRECT SUPPORT

Photo Credit: Oxford Companies



Ann Arbor SPARK will advance the economy of the Ann Arbor region by establishing it as a desired place for innovation, business location and growth, and for talented people to live and work. The Ann Arbor region will be recognized for its academic, business, and community resources, and its collaborative culture. For more information visit: www.annarborusa.org

Ann Arbor-Ypsilanti Smart Zone


Local Development Finance Authority (LDFA)

Ann Arbor SPARK Annual Report: July 1, 2022 – June 30, 2023

Contract Period July 1, 2022 through June 30, 2023

(3.3) The Contractor shall provide a written Final Program Progress Report to the LDFA no later than sixty (60) days after the end of the Project Service Term. The Final Program Progress Report shall disclose: 1) a census of the annual and cumulative number of jobs created within the Service Area (as defined in Attachment A) as of June 30, 2022 (with 'jobs created' defined as the incremental increase in the number of Full Time Equivalent employees (FTEs) beginning with the date a Business Accelerator proposal is signed, or a loan is provided, or when a SPARK Central and/or SPARK East Incubator agreement is first executed, or when participation in a Boot Camp session occurs); 2) a census of the annual and cumulative number of jobs the previous five years related to Business Accelerator, SPARK Central Incubator, and Boot Camp attendees that have left the Service Area because of relocation, merger, acquisition, or business failure as of June 30, 2022; 3) a census of the number and identity of current and past clients the Contractor deems no longer eligible for LDFA funded services as of June 30, 2022; and 4) a census of the number and identity of clients for which information regarding job creation is no longer being collected as of June 30, 2022. The Contractor shall track companies for a period of five years through an annual survey and make efforts to achieve as high a participation rate as possible. The survey will not only include questions that update standard economic development data but also ask companies who leave the area why.

The information below has been reviewed and SPARK certifies that to the best of our knowledge and ability the information below is accurate. However, given the dynamic nature of the metrics being collected this value should be considered a best effort approximation and not an absolute result.



Bill Mayer
Ann Arbor SPARK
SVP, Entrepreneur Services

Annual Metrics

This year SPARK served 231 companies with a deliberate, customized combination of accelerator services, incubation, scholarship to the Boot Camp course, or involved in the Digital Engagement Clinic (DEC). These companies reported the net addition of 101.3 (with a gross addition of 113) full-time equivalent employees (FTEs) from the onset of their engagements to the end of contract year. Currently, these companies employ 1,046 FTEs (see appendix F:1).

This year, SPARK supported the creation of 44 companies through assistance in business model development, management coaching, legal advice, and other critical startup services. SPARK has created strong companies that have the resources and viability to foster our future economy and sustain job growth.

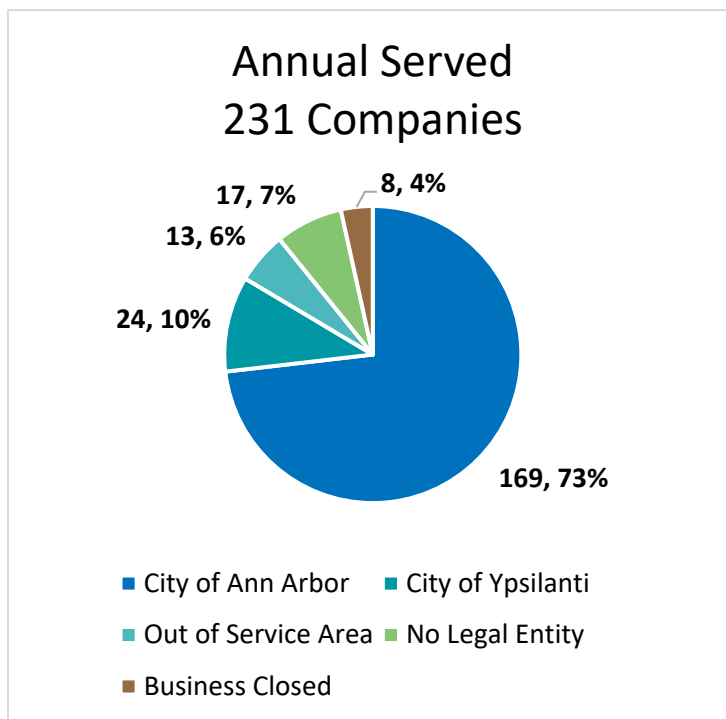
Companies Remaining in the Service Area

- One hundred ninety-three companies that worked with SPARK this year are still operating within the City of Ann Arbor or City of Ypsilanti.
- These companies reported an addition of 96.5 FTEs from the onset of their engagements to the end of the contract year.
- Ann Arbor and Ypsilanti companies SPARK has worked with over the fiscal year have gained, on average, .50 full-time equivalent employees.

Outside Service Area

Out of the 231 companies that have received LDFA-funded services this year, 13 companies representing 120.5 FTEs are currently located outside the service area.

- One company, with 1 FTE, is a Boot Camp team that is initially from outside the City of Ann Arbor or City of Ypsilanti.
- One company, with .5 FTE's, is moving to the service area.
- Three of the companies, representing 48 FTE's, are operating inside the service area but have registered addresses outside the city limits.
- Five companies, with 36 FTEs, are incubator clients or BootCamp teams that have stated intentions to move to the service area.
- The remaining 3 companies, with 35 FTE's, are incubator clients who are registered outside of the service area.

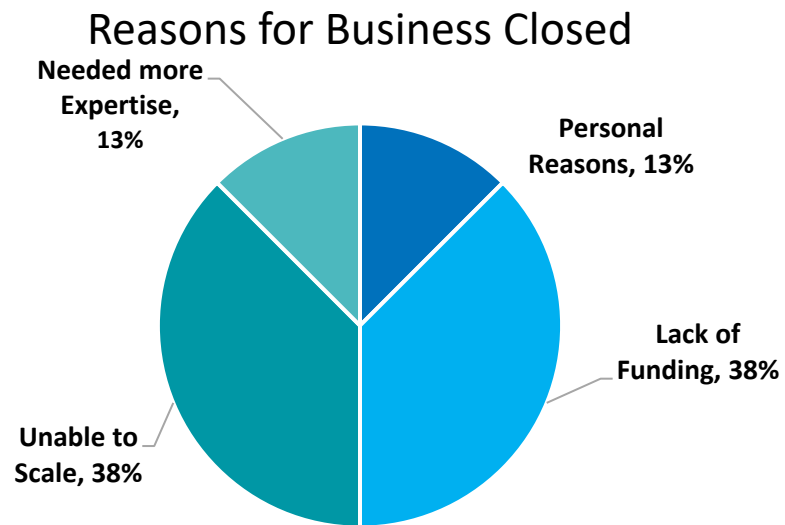


No Legal Entity

Seventeen of the companies served this year have not attained legal formation or Michigan registration by the end of the contract year. Entrepreneurial teams at this stage are either focused on validating their business model, e.g. a Boot Camp team, or they are incubator clients that haven't registered their out-of-service area or out-of-state companies in Michigan.

Closed Businesses

Out of the 231 companies served this year, 8 have ceased operations, giving the 22-23 Fiscal Year a 97% survival rate. The termination of these companies represented a decrease of 11.7 FTEs, which has already been deducted from the previously stated annual net addition of 101.3 FTEs.



Cumulative Metrics

Cumulatively, in the last five years, SPARK provided services to 477 unique companies (see appendix F:2). The subset of these companies who either responded to our survey, or remained in contact with SPARK, reported a net increase of 716 (with a gross addition of 848.5) full-time equivalent employees from the onset of their engagements to the end of this contract year. Currently, these companies employ 2,064 FTEs.

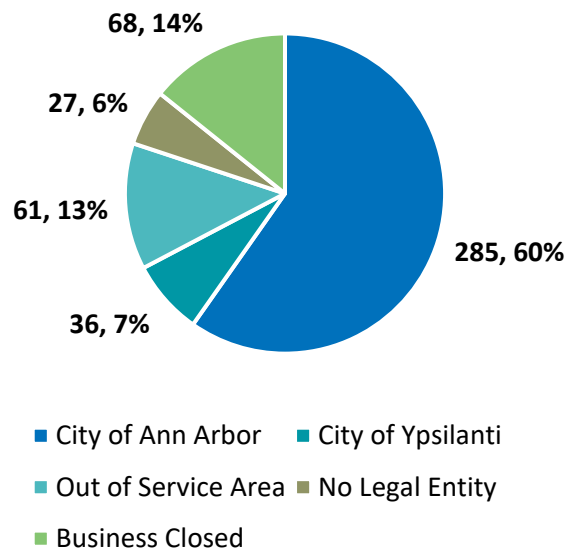
This report of jobs created is the net of reported gains and reductions in staffing for companies that received LDFA-funded services within the time period discussed below.

For the purposes of this report, ‘cumulative’ is defined as a five-year period including this fiscal year (2018-2023). The quality of our data diminishes sharply for companies served before this threshold due to the above-mentioned trend in survey responses; we lack sufficient data to accurately account for the success of our former clients as measured by employment.

Companies Remaining in the Service Area

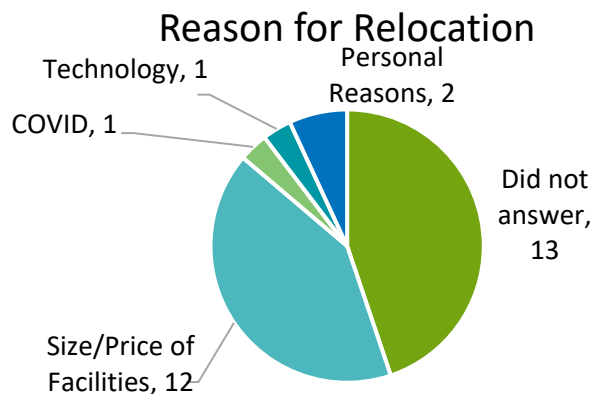
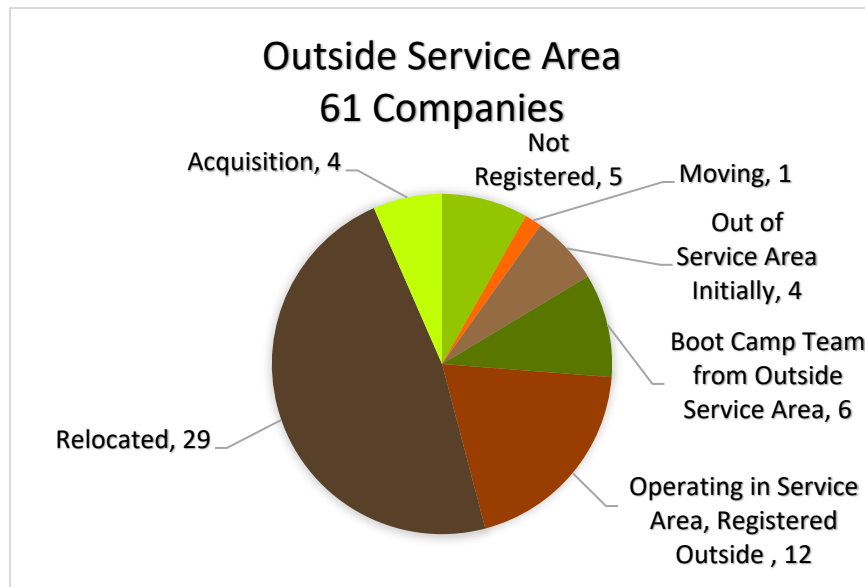
- Three hundred and twenty-one companies that worked with SPARK over the past five years are still operating within the City of Ann Arbor or City of Ypsilanti.
- Currently these companies employ 1,506.5 FTEs.
- These companies reported a net addition of 671.5 FTEs from the onset of their engagements to the end of contract year.

Cumulative Served 477 Companies



Outside Service Area

- 61 out of the 477 companies representing 513.5 FTEs that have received LDFA-funded services over the past five years are not currently registered within the service area.
 - Of the 61 companies, 90% of the companies (55 total) are still located within the state of Michigan, with 30% (18 total companies) still located within Washtenaw County.
- Four companies have been acquired by companies outside the service area.
- One company is in the process of moving to the service area.
- Four are incubator clients or BootCamp teams that have stated intentions to move to the service area.
- Six of the 72 companies are Boot Camp teams that are initially from outside the City of Ann Arbor or City of Ypsilanti.
- Twelve of the 72 companies are operating inside the service area but have registered addresses outside the city limits.
- Five of the 72 companies are incubator clients that are registered outside the city limits.
- The remaining 29 companies have moved from the service area, 12 stated a reason on our annual survey.
 - Of the 29 companies, 93% of the companies (27 total) are still located within the state of Michigan, with 45% (13 total companies) still located within Washtenaw County.



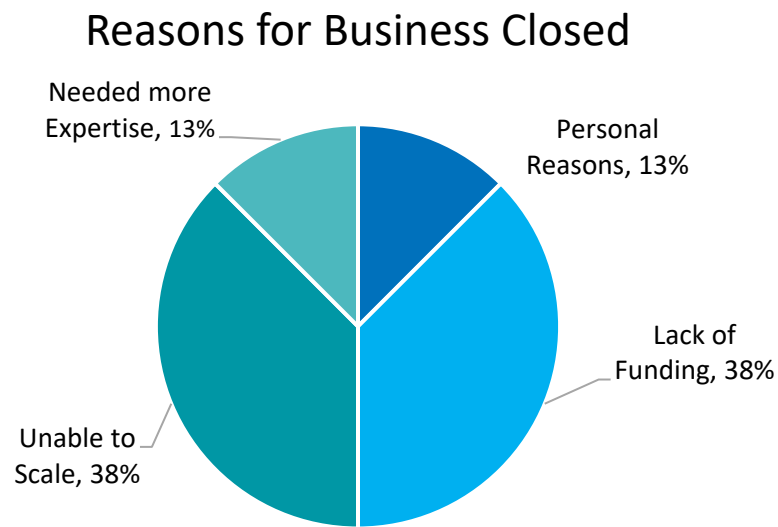
Note: Chart data set is composed of companies that answered a specific question on this year's survey.

No Legal Entity

Seventeen of the companies served have not attained legal formation or Michigan registration by the time the contract year ended. Entrepreneurial teams at this stage are either focused on validating their business model, e.g. a Boot Camp team, or they are incubator clients that haven't registered their out-of-service area or out-of-state companies in Michigan.

Business Closed

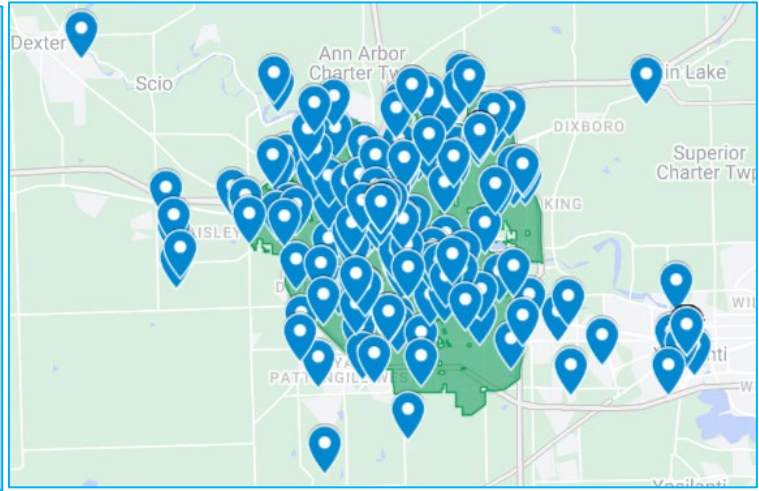
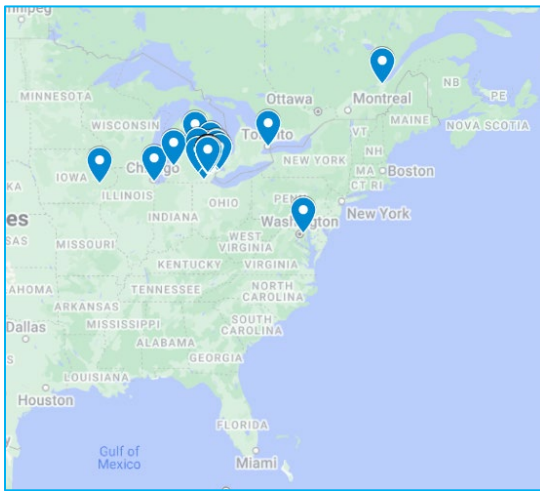
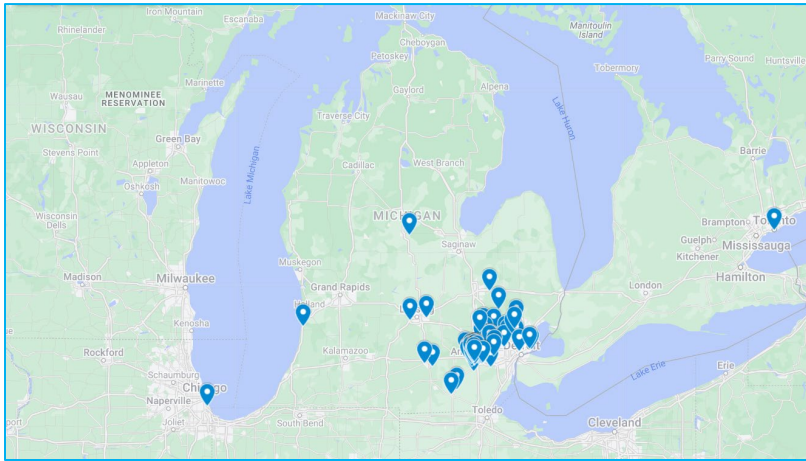
Sixty-eight of the companies that received LDFA-funded services in the last five years have reported ceasing operations, for an 86% survival rate. It is challenging to accurately report the FTE count of these companies because they do not report their employment figures when they close. However, at the start of their last SPARK service, they accounted for 133 FTEs in total.



Note: Chart data set is composed of companies that answered a specific question on this year's survey.

Geographical Distribution of Served Companies

These maps show the distribution of the 409 companies served in the last five years that are still in business.



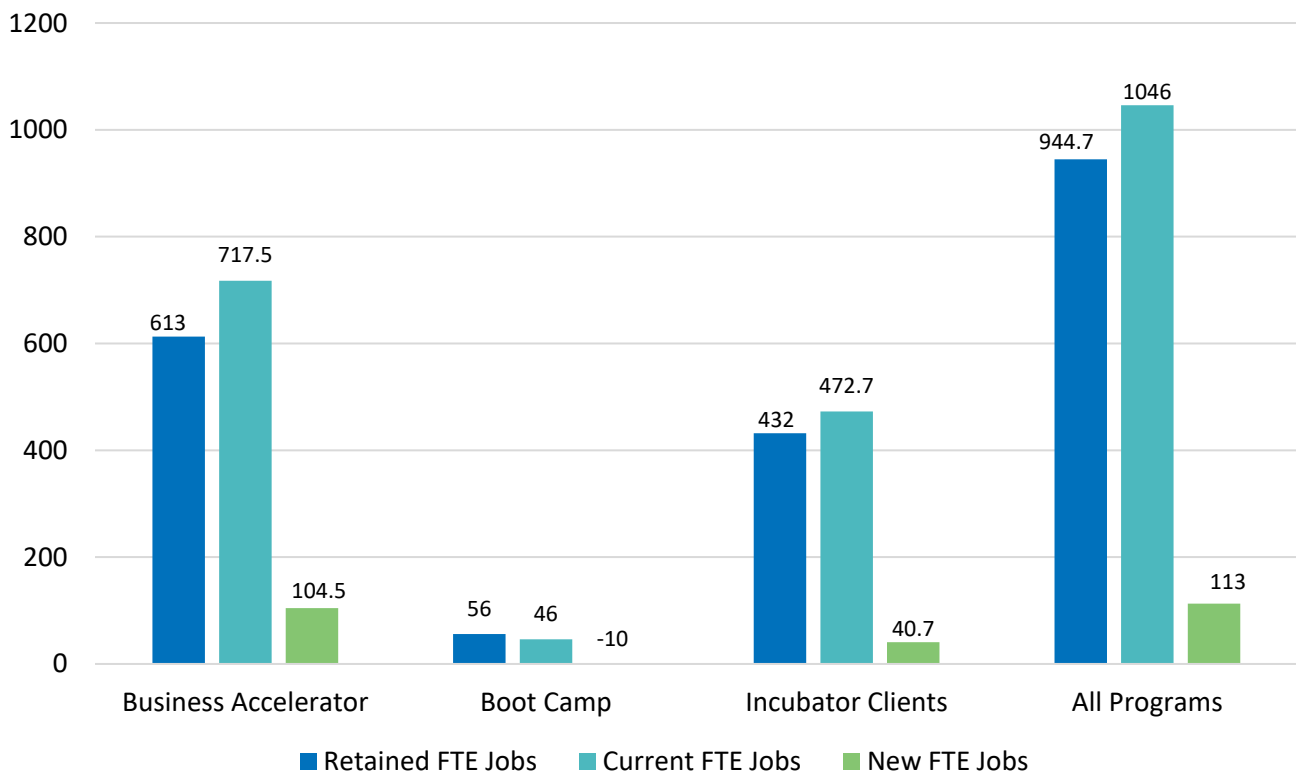
Jobs Created by LDFA Program

The tables in the appendices serve as a breakdown of services provided during the fiscal year, and the associated job creation reported by the individual clients of each program. Please note the following:

1. There is a substantial overlap of programs serving any given company. Many companies receive a variety of services from SPARK as they grow, and therefore they will appear on more than one table. Likewise, their FTE figures will cause the total FTE counts on the below graph to be less than the sum of each program.
2. The 'new' FTEs listed in the below table do not represent the net total of jobs lost due to closed companies. As a result, the total below is 11.7 more than the 101.3 jobs created stated on page two.

We also asked companies about the number of independent contractors with whom they engage. Although this figure is not required to be reported by SPARK, we believe it reflects a more accurate economic impact by startup businesses. The 1099 contractors are not represented on the below graph, but they are listed on the tables in the appendices.

Jobs Created By Program



Business Accelerator

The table in Appendix A lists the 155 companies that received Business Accelerator services this year. The table comprises business accelerator grants along with the Executive-in-Residence and internship programs. Out of the companies that had Business Accelerator engagements this year, 61% responded to the annual survey.

2017-2023 Minority Owned Businesses Served by Ann Arbor SPARK

Ann Arbor	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
*Companies Served	175	165	191	230	229	231
Total Minority Owned Businesses	35	42	56	89	111	125
% Minority Owned Businesses	20.0%	25.5%	29.3%	38.7%	48.5%	54.1%
LDFA Support Provided (Thousands)	\$1,132	\$1,233	\$1,686	\$1,730	\$1,590	\$1,557
Minority Owned Support (Thousands)	\$380	\$522	\$629	\$701	\$799	\$901

Ann Arbor SPARK is dedicated to promoting the growth of minority-owned businesses through our programmatic offerings. The organization has made great strides in addressing the diverse entrepreneurial talent in the Ann Arbor and Ypsilanti areas. Since the 2017-2018 reporting period, SPARK has almost quadrupled the amount of minority businesses served through all programs.

Boot Camp

The table in Appendix B lists the 26 teams that attended Boot Camp this fiscal year. The 2022 Summer Boot Camp was held June 21st – August 16th, the winter Boot Camp session was held December 7th – February 15th, and the 2023 Summer Boot Camp was held June 14th -August 2nd. Eleven Boot Camp teams received Business Accelerator services by June 30. The summer Boot Camp was held one team was affiliated with the University of Michigan. In all, 23 teams received an LDFA-funded scholarship to attend Boot Camp. This year’s annual survey had 18 teams respond amongst all Boot Camp teams.



Sniffer Robotics, founded in late 2016, developed a patented, drone-based solution to detect methane leak sources at ground level. Sniffer was a participant in Ann Arbor SPARK’s 2016 Boot Camp program. This program enabled Sniffer to identify and address their product market and to establish a preliminary business plan. Since 2016, Sniffer has received a variety of other services from SPARK including our intern matching program and nearly \$20,000 in support from our Business Accelerator grant. Earlier this year, the company announced a substantial close of a \$2 million seed funding round, including investments from Michigan Rise and the Michigan Angel Fund.

Incubator Clients

The table in Appendix C lists the 108 companies that are or were incubator clients this year in the SPARK Central Innovation Center or SPARK East Innovation Center. Of this year’s clients, 41% responded to the annual survey.



Incubator Space

Ann Arbor SPARK’s coworking spaces offer physical office space, essential business services, and business development guidance in Ann Arbor and Ypsilanti — with affordable rates for startup companies. The SPARK Central Innovation Center in Ann Arbor and SPARK East Innovation Center in Ypsilanti offer professional, staffed business space, meeting and conference space, and full amenities for launching a technology-driven startup. These resources have provided invaluable support to startups in the area in need of office space customized to their needs.

“Thanks for all the help setting up at SPARK. From my first day experience, it is perfect for us. We are keen to take advantage of every opportunity SPARK has to offer. We also want to be part of the SPARK community.”

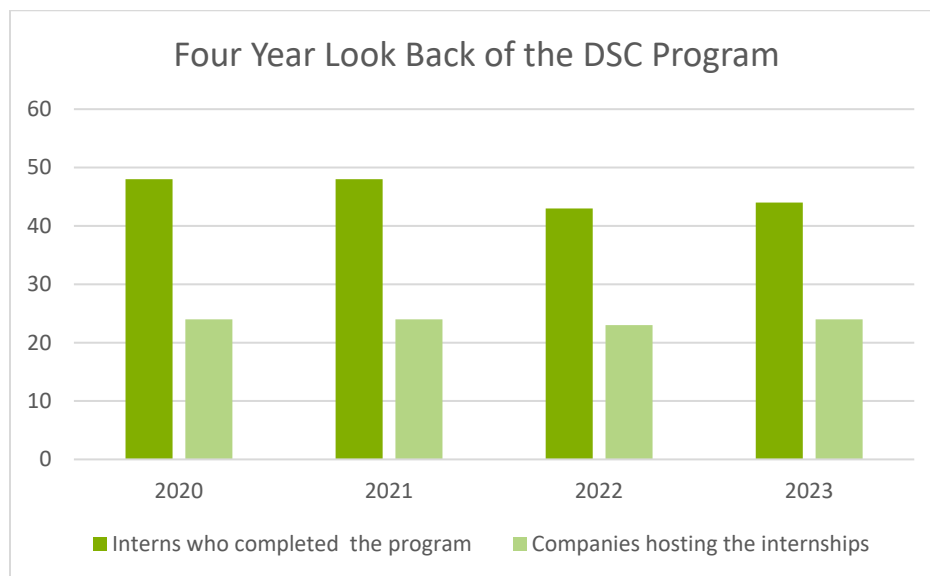
– Current client of the SPARK Central incubator

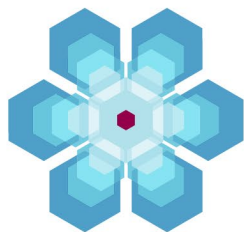
Digital Summer Clinic

Twenty-four local startups received a digital marketing boost through a collaborative program between Ann Arbor SPARK and Eastern Michigan University’s Center for Digital Engagement over the summer of 2023. The Digital Summer Clinic (DSC) matched 44 undergraduates and recent graduate interns with Ann Arbor SPARK clients to accelerate the startups’ digital marketing efforts. 44 students were accepted into the program with majors including UX, graphic design, digital media production, computer science, and data science. The startups received hands-on digital marketing, and clinic interns received valuable work experience that built their resumes. In 2023, two thirds of the interns were female.

Interns worked in teams of two for companies housed in Ann Arbor SPARK's high-tech incubators. Example projects include: social media content production, marketing, data analysis, SEO and project management. The internships were for 10 hours per week and ran from mid-June through mid-August culminating in a graduation ceremony where students were awarded a Digital Media Certificate. For the students to gain their CDE/SPARK Digital Media Certificate, they must complete the 90-hour internship with their assigned local startup, attend weekly panel discussions, and get certified in Google Analytics or AdWords.

One of the main reasons Ann Arbor SPARK and the Center for Digital Engagement continue to grow the summer clinic is to watch students gain insight and experience for jobs in the Ann Arbor area. Local employers find the interns’ newly acquired skills and demonstrated proficiency especially valuable as evidenced by the rate at which the interns are hired post-graduation.





BioMedware

Geospatial Research and Software

BioMedWare, a local startup that develops software for the visualization, analysis, and modeling of dynamic geospatial data for the health and environmental sciences, has been an enthusiastic supporter of the Digital Summer Clinic intern program for the last two years. Through SPARK's support of the program, BioMedware has received four interns that have provided invaluable digital marketing support for the company. Regarding the program, Biomedware's founder says, "our Digital Summer Clinic interns have far exceeded our expectations." The interns have been "reliable, intelligent, dedicated, creative, motivated, and highly qualified, our interns are among the most valuable additions to our team."

Mobility

Mobility is a driving industry in the Ann Arbor region, with 250 mobility companies of varying sizes located in Washtenaw County. In this last fiscal year, Ann Arbor awarded Business Accelerator services totaling \$73,028 to 26 mobility companies that employ 71 FTEs in Michigan. Mobility companies in the region raised a total of \$24,520,000 in capital.¹

Company Successes

- Capital Raised: Some examples include Invisible AI Inc. raised \$15MM in Oct 2022. Sniffer Robotics, LLC raised \$2MM in May 2023. Another mobility company (12098) raised \$5.5MM in Sep 2022 and a fourth mobility company (12886) raised \$1.6MM in Oct 2022.
- Three mobility companies (16841, 17035, 16662) chose to establish their U.S. headquarters in Ann Arbor.
- EAVX expansion announced in Nov 2022 is expected to generate a total capital investment of \$3.79MM and create 75 high-wage jobs in Ypsilanti Township.
- May Mobility expansion announced in Apr 2023 is expected to generate a total capital investment of \$18MM and create 300 high-wage jobs over the next three years in Ann Arbor.
- RXO expansion announced in Jun 2023 is expected to generate a total capital investment of \$2.35MM and create 140 jobs in Ann Arbor.
- Toyota North America “Driving Possibilities” STEM investment announced in Jun 2023 is expected to generate a total capital investment of up to \$47.7MM in York Township.

Additional Projects and Collaborations

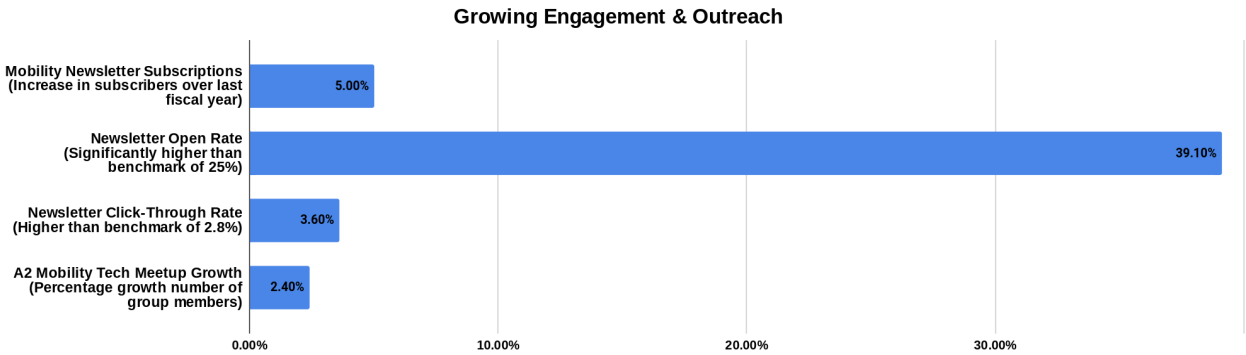
The Mobility Team’s continuous efforts to strengthen cooperation and coordination with partner organizations for projects and help startups better leverage existing resources.

- Provided three Letters of Support for proposals submitted by partner organizations to further mobility efforts within the Ann Arbor region.
- Participating in the Michigan Cities Working Group organized by the Office of Future Mobility and Electrification brings together leaders from Ann Arbor, Detroit, and Grand Rapids.
- Participating in the AZZERO Collaborators Working Group and attended the AZZERO Collaborators Workshop.
- Participating in the Shared Use Mobility Coalition and attended the Shared Mobility Summit.
- Working with MEDC’s OFME as a Michigan Mobility Funding Platform grant reviewer.

Growing Engagement & Outreach

Over the course of 2022-2023, the mobility team saw consistent growth in engagement and outreach through its monthly newsletter and bimonthly mobility meetup that features local startups.

¹ Source: PitchBook and internal communications with companies



A2Tech360

Three mobility events were organized as part of a2Tech360 2022:

- **Mobility Summit:** The in-person event engaged 30 speakers from around the country and had 148 registered attendees.
- **In person Mobility Row & Tech Trek:** This year we had a combined street fair for Mobility Row and Tech Trek companies on Liberty Street. 64 companies participated, out of which 29 were mobility companies, with 1,127 total registrants.
- **Invest360:** Five mobility companies went head-to-head under the Invest360 Mobility Category. M-Vision was the winner of the pitch showcase.

National Annual Events

- **South by Southwest (SXSW):** Ann Arbor SPARK co-sponsored Michigan Day at Midwest House to showcase the innovation and R&D ecosystem of the Ann Arbor region to a national and international audience, highlighting our region’s strengths in areas such as mobility, life sciences, and technology. SPARK was able to pitch Ann Arbor as a place to locate a business and take advantage of a deep well of talent in front of a globally diverse audience.
- **North American International Auto Show (NAIAS):** SPARK hosted 13 mobility companies representing regional electric, autonomous, and connected vehicle innovation as part of AutoMobili-D, presented by the Michigan Economic Development Corporation (MEDC) and the Michigan Office of Future Mobility and Electrification. SPARK also presented the panel Shifting Paradigms: The Evolution of Use Cases and Scale Horizons in the Age of Autonomous Vehicles featuring John Davis, director of vehicle and production engineering at Ford Motor Company, and Mitchell Rohde, CEO and co-founder of Quantum Signal AI.
- **Consumer Electronics Show (CES):** SPARK’s Senior Vice President of Entrepreneurial Services, Bill Mayer, attended CES and commented that mobility was undeniably the star of the show. Michigan Economic Development Corporation hosted a matchmaking event and reception that allowed Ann Arbor and other Michigan-based startups to participate. It was a fun evening that enabled great conversations between engineers, investors, potential customers, and collaborators.

U.S. Energy Foundation Grant

In Nov 2022 SPARK was awarded a \$20k grant from the U.S. Energy Foundation to assist them in their mission to build a strong, clean energy economy. Funds from this grant were used to showcase how Ann Arbor mobility tech companies are contributing to innovative energy solutions, educate local businesses about sustainability implementations to help achieve Ann Arbor’s A2ZERO plan, and to sponsor a beloved community event, Bike to Work Day.

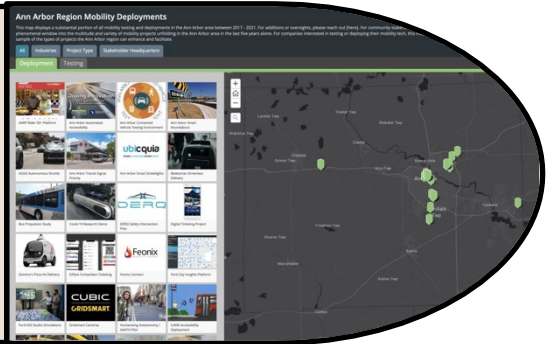
A2GO Update



May Mobility continues to operate its autonomous shuttle service in downtown Ann Arbor. The service now incorporates a fully accessible shuttle van providing room for a wheelchair rider and an additional guest. May Mobility continues to operate this service free of charge. SPARK was fundamental in bringing this service to Ann Arbor starting in 2021.

Ann Arbor Living Lab: Interactive Project Map

A new tool was created that displays over 50 publicly announced multi-stakeholder projects and grant-funded mobility testing taking place in the Ann Arbor region between 2017 and 2021. This robust activity is a testament to the innovative spirit of the companies located here and the level of acceptance and enthusiasm the Ann Arbor community and the public sector has for innovation. [See more information.](#)



Strategic Marketing and Communication Services

The newest addition to the SPARK services, which started in August 2019 for our clients, is strategic marketing and communication services. This is an in-house marketing strategy and service for our clients through the LDFA, dedicated to helping clients effectively reach their target audience. The services offered through this expansion are marketing needs assessment, marketing referral, marketing resources and educational materials, strategic marketing session, internal account collaboration, content review and edits, and content development. This year there was a total of 272 sessions amongst 64 companies expressed through the data in Appendix D.

A2Tech360

Ann Arbor SPARK recently announced its popular annual **a2Tech360** programming will be delivered in-person this year, September 14 - 22, 2023. An Ann Arbor SPARK initiative, supported by LDFA, a2Tech360 promotes the Ann Arbor region as an area of innovation. Offering a week of tech-related events, a2Tech360 creates connections between entrepreneurs, researchers, investors, businesses, educational institutions, nonprofits, job seekers, and the general public to generate discussion, ideas, and new opportunities.

a2Tech360 originated in 2018 as an extension of its Ann Arbor SPARK's Tech Trek event, as a way to deliver broader programming to spotlight the region's innovative people and businesses. This year's a2Tech360 is comprised of 17 events throughout the Ann Arbor area. Below is a list of the most popular events.



Celebrate Innovation – Thursday, September 14

Celebrate Invention is an annual event that honors University of Michigan inventors and the growing impact of U-M innovations. Event highlights include demonstrations of research discoveries and products from U-M startups as well as networking opportunities.

Invest360 Investor Showcase – Friday, September 15

Invest360 showcases a curated group of companies to Michigan's investor community. The companies compete for \$50,000 in one of three categories: information technology, mobility, and healthcare. The three winning companies will then pitch in-person, the morning of *Friday, September 15* for a chance to receive the People's Choice award an additional \$50,000.

FastTrack Awards - Friday, September 15

The annual FastTrack Awards honors fast-growing 'gazelle' companies headquartered in Washtenaw and Livingston counties. Celebrate their success with us! "Gazelles" are defined as high-growth companies with

20 percent increased average revenue for three years, starting from a revenue base of at least \$100,000. Awardees can range from small companies to large enterprises since gazelle companies are characterized by their rapid growth, rather than their absolute size.

MI Angel Summit - Monday, September 18

The fifth annual Michigan Angel Summit is a great opportunity for individual investors to meet others interested in learning more about this exciting asset class called Angel investing. Whether you are considering becoming an angel investor or have been making angel investments for years, you will meet likeminded people from around the state and learn about the latest trends and opportunities available.

Women in Tech - Monday, September 18

Our speakers will discuss their experiences navigating the tech industry and propelling their careers as leaders in the field. They will also share how to build up career experience, maneuver a room of doubters, and discover your personal success story. This program positions established or climbing women in the tech field to create effective and warranted disruption to their industry by addressing gender bias, pay inequality, and overcoming adversity.

Mobility Summit - Tuesday, September 19

At the sixth annual Ann Arbor Mobility Summit, visionaries and leaders from the public, private, academic, and nonprofit sectors converge to share insights, foster collaboration, and ignite inspiration to advance mobility in Michigan and across the globe.

Tech Talk - Tuesday, September 19

Immerse yourself in the captivating world of technology and innovation at Tech Talk, one of the highlights of a2Tech360! Prepare to be captivated as we bring you a lineup of brilliant minds who will share their origin stories and provide exclusive insights into the groundbreaking technologies emerging from the Ann Arbor region.

Tech Trek - Friday, September 22





Ann Arbor's largest, public, and tech-inspired event returns! A2 Tech Trek and Mobility Row is a free community street fair and company open house where regional technology companies showcase their innovations and culture. From robotics and game developers to self-driving shuttles and medical marvels, attendees will gain insight and inspiration on the technological advancements that will define and change the years ahead.

Marketing



Marketing Performance Metrics | 22 - 23

Using an integrated marketing strategy to increase LDFA brand awareness

Marketing Communications Tool	Description	LDFA FY 22 – 23	Compared to Last Year
Website Visits 	Visits to our website will raise awareness and provide valuable tools and resources.	364,502	+27%
Video Views 	Video views on multiple platforms to reach wider audiences.	465,359	-8%
Social Media Impressions 	General visibility on a variety of popular social media platforms.	7,173,402	-27%
Social Media Interactions 	Direct, positive interactions with people from all over the world.	463,018	-29%

Software

8.3 Licensed Software. Contractor may obtain licensed software products or services that allows for improved data collection or metric reporting, and/or offer clients improved productivity tools. Contractor shall submit invoices for actual cost to the LDFA on a monthly basis with the annual expense not to exceed a gross amount of \$70,500. Contractor shall report the program or service acquired in the next following quarterly report including the type and purpose. A summary of usage shall be included in the Final Program Progress Report consistent with Article 3.3 of the agreement.

Usage

The software line in our budget was used to support ongoing operations with improvements to data collection and storage infrastructure as detailed below.

1. **SurveyMonkey:** Online survey creation and distribution apparatus that automatically inputs responses into our CRM. We use this instrument to conduct the annual survey. (\$7,410.00)
2. **DocuSign:** Document and signature management software to expedite operations. (\$3,600.01)
3. **eBook Subscription:** Designed for organizations trying to learn more about entrepreneurship, sales, marketing, product launch, competitive analysis, and other topics. (\$1,500.00)
4. **Robin:** Workplace experience software platform. (\$10,155.00)
5. **Salesforce:** Customer relationship management system used to record and track client relationships. (\$4,575.81)
6. **TrueJob:** The backend to our job portal. (\$5,550.00)
7. **Zendesk:** Customer experience tool to help manage the incubators. (\$4,500.00)
8. **Pitchbook:** Online database of venture capital and private equity information, used to provide and confirm capital raised metrics. (\$27,000)

Total: (\$64,290.82)

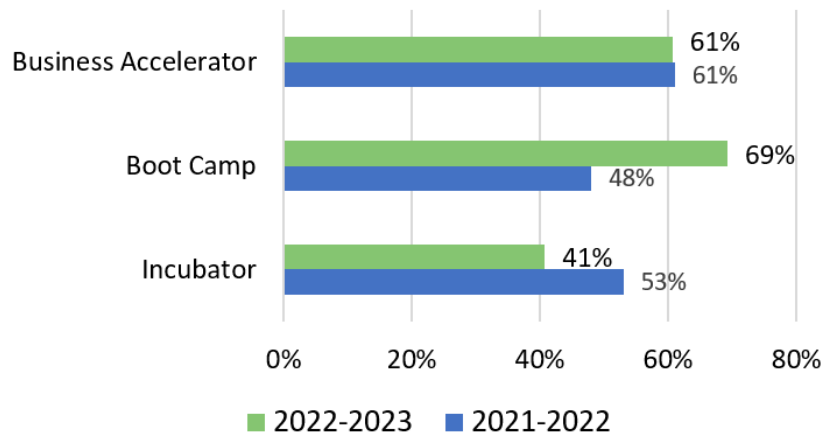
Annual Census

The online survey functions as a way of demonstrating programmatic efficacy. The survey produces evidence of job creation and retention, business activity status, as well as company location by capturing employment data through FTE counts, and updates on basic profile information. In addition, the survey retrieves insightful explanations and comments regarding these topics.

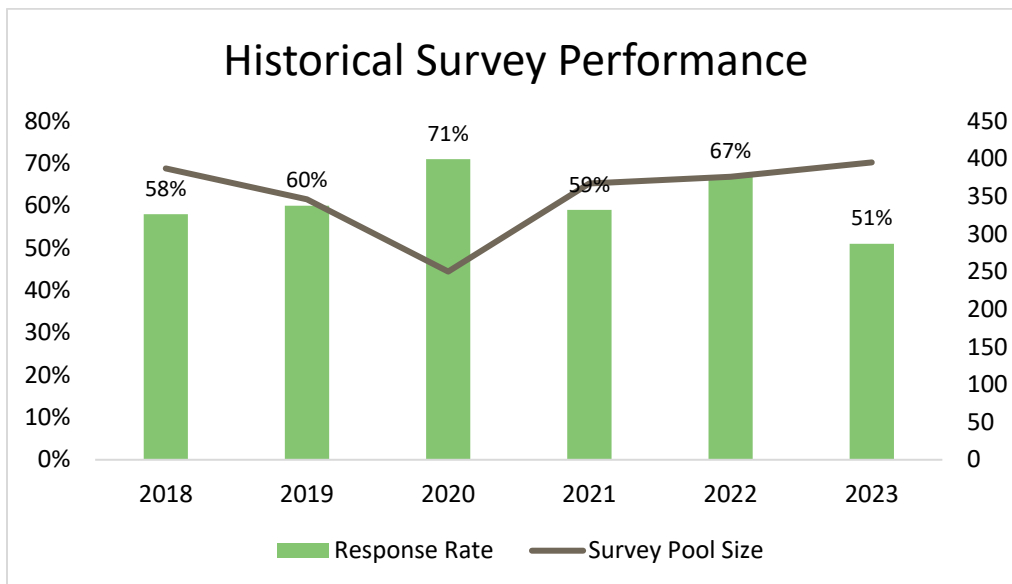
This year, we achieved an overall response rate of 51%. In 2023, the survey pool increased by 19 companies and the number of responses decreased by 50.

Companies served this year responded at a rate between 41% and 69%. The companies served over the past five years who accessed LDFA funds or services were targeted for the survey pool. The survey pool has decreased over the years due to inactive records being cleaned up and companies that do not fall within the five-year criteria anymore being excluded. A full description of the methodology utilized in conducting the census is included in the next section of this report.

Annual Survey Response Rate by Program



Historical Survey Performance



Census Methodology

Ann Arbor SPARK collects and reports data from its clients over and above what is required by the contract. Salesforce.com is employed as our customer relationship management system to record company data. Information about all companies is gathered through several methods as described below. Ann Arbor SPARK continues to refine procedures to capture, store, and report data more efficiently, accurately, and timely.

Initial Data Entry

A procedure was implemented in late 2008 requiring all entrepreneurs requesting assistance of Ann Arbor SPARK for Business Acceleration services, incubator space, or Boot Camp to fill out an online form that could be accessed through the SPARK website. Basic information including name, address, phone, email, and brief description of company are required. This information is automatically fed into Salesforce. An effort is made to connect with all inquiries within 48 hours. In an initial communication, additional data gathered by SPARK personnel determines if the entrepreneur meets minimum criteria to warrant further discussion and assistance. At that time, a better description of the applicant's needs is captured and input.

Retained FTEs

We capture the number of FTEs that a company had at the start of an engagement of any kind. This number becomes our retained jobs number and is not altered. However, for reporting purposes it is possible the retained jobs number can change for a company if that company takes advantage of multiple services, and their FTE count changes between those services. For example, when a team attends Boot Camp there may be only one FTE — the entrepreneur. When that team returns for Business Accelerator services there may be additional FTEs — co-founders or initial hires. When reports are generated on Boot Camp attendees, the team's retained FTE number would be one. When reporting on Business Accelerator clients, the retained FTEs would be more than one.

Current FTEs

Throughout the year 'current jobs' is collected from entrepreneurs through three methods. When SPARK staff meets with entrepreneurs, FTE updates are gathered and recorded in the CRM system. Additionally, written documentation is obtained from every company at the start of each engagement. This document is attached to their file to corroborate the FTE count listed as start of engagement. These values are accurate to the best of Sparks knowledge. However, given the dynamic nature of the metrics being collected this value should be considered a best effort approximation and not an absolute result.

Annual Survey

All current and former clients are surveyed annually using SurveyMonkey, an online survey tool that synchronizes with Salesforce. Our survey asks for data including current employment and other vital company information. The response rates for each of the four programs are listed in each section. If an entrepreneur sends SPARK data via the survey that does not pass a visual inspection, they are contacted and asked to verify the data. If an adjustment is made to the CRM data, written documentation from the entrepreneur is attached to the file.

Appendix A: Business Accelerator Companies Served

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
11701M	Mobile application for autonomous vehicles and pedestrians to help avoid collisions.	5.5	5.5	0	1
14736	A low-code cloud software platform which software products can be rapidly built and iterated.	3	1	-2	3
4519	Platform giving independent app publishers technology for customized native ads and access to advertisers.	76	67	-9	2
12031MU	Multi-dimensional electromagnetic energy convertor (EMEC) that increases the power density of conventional solar modules.	0.5	2	1.5	0
11893M	Developing a level 4 autonomous bus platform for vehicle manufacturers and organizers who plan to operate an autonomous fleet.	4	5	1	0
6828	Software for the analysis of genetic data.	7	7	0	1
8255Y	Communications software for business-to-business or business-to-consumer.	5	4	-1	10
16846	Small molecule drugs to treat a wide range of diseases leveraging a diverse portfolio of RXR agonists with license options.	5	2.5	-2.5	0
15264	A creator financing and NFT marketplace.	5	5	0	2
12128U	An artificial intelligence software platform that uses real-time in the catheterization lab to process conventional angiograms and automate a quantitative clinical assessment of coronary artery disease (CAD) patients.	4	5	1	1
11320	Data analysis functionality for technology products and other digital artifacts.	2	3	1	2
14782U	Wastewater treatment process that is more energy efficient and a smaller footprint.	2	2	0	0
15340M	A type of Li-ion battery capable of high energy density and extreme fast charging.	2	3	1	0
7876U	Wearable graphene nanoelectronic alcohol sensor for real-time alcohol monitoring.	4	5	1	5
16886U	Cryo-electron microscopy (cryo-EM) solves 3D structures of biomolecules in their natural states.	1	1	0	0
16989U	A web-based, interactive platform to deliver the training.	1	1	0	0
16562U	ASKO Holdings is the parent company with ASKO Therapeutics and ASKO Pharma as two entities under it.	3	3	0	0
16547	Develops novel and more effective therapeutics in the areas of cardiovascular, metabolic, and infectious diseases.	3	3	0	0
16563U	Aims to develop novel and more effective therapeutics in the areas of cardiovascular, metabolic and infectious diseases.	3	3	0	0
2752	Entry-level neurophysiology (brain signal recording) kits for students to learn about the brain.	11	7	-4	3
16482	An online network of interviewed and expert online coaches.	1	2	1	10
11350M	Autonomous last mile delivery trailer.	3	5	2	1
16407Y	An all-in-one marketplace and digital platform for end-of-life and after-loss planning.	1	1	0	0
11979	A personalized chat bot that helps moms cultivate resilience through pregnancy and postpartum depression.	1	3	2	0
16833	Making real, fun, engaging games that also end up having therapeutic qualities and educate our players about their mental health.	2	2	0	0
585	Software development with biostatistics and spatial epidemiology.	4	3.5	-0.5	1

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
11801U	A machine-learning algorithm based on parcel data, historical records, and other data sources to predict service line materials.	20	22	2	5
8832	Security breach detection tool with actionable information for IT teams to detect and respond to cyber security events.	40	40	0	0
16786	A developer of smartwatch-based software solutions designed to elevate engagement and outcomes in health and wellness.	2.5	2.5	0	2
12134U	A personal air purification device to solve the problem of people being unable to live active lives in places with unhealthy air quality.	1	1	0	0
11120U	Cross-MBA trips for students from several universities before their MBA program begins.	3	3	0	1
12840MU	An online peer-to-peer marketplace for parking aimed at solving parking availability and affordability problem on college campuses by using empty driveway space.	3	3	0	0
8769	Automated legal document generation software.	1	1	0	2
16414	A free-to-use website and mobile platform that uses A.I. to provide personalized gift recommendations.	3	2	-1	0
16864U	Develop new synthetic materials composed entirely of plant-derived precursors	2	2	0	0
15408Y	A portable document and photo scanner.	1	1	0	1
11954	A platform using progressive web app technology to help pain sufferers navigate a variety of options to better manage pain through self-management and related resources.	6	5	-1	4
16599	Allow users to set up a legally binding contract that only allows funds to be pushed after both sides are 100% confident that the corresponding section of the contract has been fulfilled.	2	1	-1	2
16625	A digital platform enabling communication and clinical collaboration across the care continuum with patients/families, providers, and network affiliates.	1	1	0	0
16528	A community-based platform that enables instant communication between experienced handymen and self-reliant homeowners to resolve house repair/improvement problems.	2	1	-1	1
11859	Helps companies make employee decisions connecting and analyzing disparate sets of data, particularly from employee surveys and human resources information technology systems.	2	4	2	3
15159	Helps healthcare companies know what germs are growing in their clinical environments.	1	1.5	0.5	3
15282Y	A digital identity and vital information storage and exchange platform.	3	2	-1	2
16745U	An automated CPT coding algorithm that can accurately predict prior authorization and charge reconciliation in the perioperative space.	3	3	0	2
16538	A virtual wellness coaching and support group platform guiding members toward optimal health to support pregnancy.	1	1	0	6
15351	An innovative Operating Room Efficiency Platform that enables the healthcare system to reduce stress in the OR, total cost of treatment, and increase patient wellbeing while achieving optimal quality of care.	0	2	2	0
10188	Software that integrates patient genetic information into electronic health records.	0	3	3	0
16566	A proprietary online platform that will utilize blockchain technology to offer micro-denominated bond securities to non-accredited investors.	1.5	1	-0.5	0
15386M	Safe battery collection, transport, and storage for highly combustible batteries.	2	2	0	0

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
16266	An end-to-end project management tool that consolidates all trip planning processes into one place.	2	2	0	0
15181U	Artificial intelligence-assisted software for real time colonoscopy video analysis that delivers an endoscopic Mayo score that is reliable and reproducible saving time and money to help deliver drugs to market, quicker.	3	1	-2	3
16984	A product for remotely monitoring a person's respiration rate and ECG.	2	3	1	3
13686U	Medical artificial intelligence to predict the need to go to ER and conditions like COVID-19 with accuracy that is precise to the individual.	1	2	1	3
16498U	A novel medical device enabling rapid, reliable, and accessible point of care allergy testing.	2	2	0	0
17052M	Retrofitting kits that give consumers the opportunity to upgrade their gasoline dirt bikes to electric.	2	1	-1	0
16710	The only compliant crowdfunding site for NCAA athletes.	2	0	-2	1
15410M	An "optimized fleet-as-a-service" to commercial fleet managers for multiple, specific purposes/uses.	2	2	0	2
14747	A video game advertising agency that helps businesses and brands promote their products.	3	1	-2	12
8393	Business-to-business marketplace where businesses can easily find quality information technology professionals.	5	5	0	1
7117U	Data processing algorithms and curated genetic database software as a service.	58	125	67	3
11252YM	Two wheeled 'series hybrid' for developing markets.	1	1	0	0
15335U	A frontline psychoeducation program for pregnancy and early parenting.	2	3	1	2
15272	A prophylactic Pseudomonas aeruginosa (Pa) vaccine created from a proprietary vaccine development platform.	5	5	0	0
16682U	A transmission electron microscope (TEM) specimen holder that enables stable, ultra-low temperature imaging of specimens.	2	2	0	1
11838	Helps to protect the athlete through a neuromuscular training methodology that immediately provides a player and coach the ability to identify and correct incorrect form at the point of contact.	1	1	0	4
12120	A population health infrastructure and registry tool that aggregates data from external sources to calculate physician and network performance against sets of clinical guidelines and facilitates.	5.5	5.5	0	3
12775	A SaaS solution providing tracking of follow-up care to ensure no patient falls through the cracks. Along with patient engagement to give patients timely information helping them to stay on plan.	0	4.5	4.5	1
16643	A resale marketplace app. Users can connect with local buyers and sellers and meet in person to reduce shipping cost and carbon emissions.	2	2	0	1
11540MU	Manufacture and sell steel fiber for ultrahigh performance concrete (UHPC).	2	4	2	4
16483	A software platform to enable a nationwide real estate portfolio.	2.5	3.5	1	6
16196U	A room-sized augmented reality (AR) system for inclusive play and exercise.	0.5	1	0.5	1
15196	A children's app aimed at fostering social and emotional intelligence for three- to seven-year-olds in the U.S.	0	1	1	0
8366Y	Physiological performance data analytics company.	2.5	1	-1.5	0
11918Y	Health management platform connecting patients, providers, and caregivers to effectively manage patients with chronic conditions.	2	3	1	5

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
16985U	An online platform for conversation processing, to provide assistance with the growing number of virtual conversations.	2	3	1	0
15241	A platform that utilizes biosignals acquired through a third-party wearable device to detect (and eventually anticipate) anxiety and stress in real-time.	4	2	-2	5
16251M	Modular hardware platforms robotics and autonomous vehicle companies to run delivery services.	2	2	0	1
12842M	Last mile robot delivery solutions.	5.5	6	0.5	2
15107	An application for peer-to-peer tool and equipment rentals.	2	2	0	0
7282	A Think-Work-Together platform.	2	2.5	0.5	2
8658	Builds and hosts complete, professionally designed, mobile-responsive websites.	8	7	-1	1
15288	An app aiming to create a life free from sexually transmitted infections.	1	1	0	3
15134U	An artificial intelligence tools that allow users to search videos.	0	1	1	0
12036U	An automated leasing and marketing for any property management firm to book more tours.	1	1	0	3
17049	A smart, screenless learning system that teaches young children how to read while they play, and gives parents peace of mind that they have support watching for the signs of autism and dyslexia.	1	1	0	0
16642Y	An app and platform geared towards interactive solutions for GenZ relating to career, housing, fintech, etc.	1	1	0	0
11900M	Meteorological technology intelligence that produces connected vehicle sensor data for improved road safety, improved weather forecasting, and for monetization of data for owners.	2.5	2.5	0	0
11212Y	A personal loan assistant that simplifies terms and guides students through lowering their aid package and automatically paying interest while in school.	6	5	-1	2
12902Y	A drug formulation to help chronic kidney disease patients.	2	2	0	4
15418	A new style continuous positive airway pressure (CPAP)/bilevel positive airway pressure (BIPAP) mask/liner.	3	1	-2	4
12260YU	To reduce medical supply surplus by providing end-to-end supply tracking and management solutions.	3	2	-1	0
16999	A platform that leverages the most centralized network of incoming college students across North America to form connections and build community before anyone steps on campus.	3	3	0	0
12030	English Sign Language (ESL) educational technology platform that includes business culture training.	20	20	0	1
16236YM	A technology company that provides mobility-as-a-service to individual, retail, and commercial customers in need of last mile delivery.	2	2	0	2
11735U	Live cell imaging using multiple independently controlled modules allowing multiple users at once.	1	1	0	0
17057Y	An AI-powered teaching assistant that helps students learn more effectively and efficiently.	0	1	1	0
15378M	A company that provides a robotics platform for autonomous mobility solutions in a variety of industries.	0.5	2	1.5	0
8132Y	DNA and bioinformatics analysis and collaboration platform.	2	2	0	1
16813	An early-stage drug discovery SaaS that manages drug discovery project data for academic and corporate entities.	1	2	1	0
289M	Creating an automotive and security technology portfolio.	2.5	2	-0.5	0

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
17051	A unique apparel business that combines the passion for dogs and outdoor adventure by offering high-quality, durable, and stylish apparel and accessories for both dog owners and their pets.	1	1	0	0
12098M	Indoor positioning technology to provide traffic control and logistics support for hospitals and healthcare systems.	13	13	0	2
11367	Software for school exit loan counseling guidance process.	7	7	0	5
13622	Creation of gaming software and merchandise for female audiences.	3	3	0	0
11791U	Addresses disruptive CO2 emissions convert into hydrocarbon fuels.	1	4	3	2
8229U	Neuroprotection for retinal diseases.	3	3	0	0
16613	Enables customers to plan amazing trips in a fraction of the time by providing them with hyper-personal recommendations in their upcoming destination.	2	2	0	3
8806	Turnkey passive home entry module.	8	8	0	2
16739U	Use of artificial Intelligence in the processing of endoscopy videos.	1	2	1	0
11988	Scalable smart camera system that captures all objects in any sports scene, including players and officials, from multiple points of view including 3-D motion.	1	2	1	4
16672U	A plasma-based water treatment system that can decompose a range of contaminants.	3.5	3.5	0	1
15339	A disruptive process which will revolutionize and cause standardization of Traumatic Brain Injury (TBI) diagnosis and treatment.	1	1	0	1
16184	A means of improving oral care compliance in mechanically ventilated patients in order to reduce the real-world rates of ventilator associated pneumonia.	1.5	3	1.5	0
12937	A self-sanitizing door handle by ultraviolet (UV) light.	2	2	0	0
12190	Makes control data easy and accessible to build predictive economic models.	4	4	0	0
16419	A regenerative therapy device for teeth that promotes the repair of the pulp-dentin complex.	1.5	1.5	0	0
16964U	A lifestyle group-based normative message that can be attached to any communications medium by the utility companies such as bills, periodic materials, social media, and online portals, to reduce residential energy consumption without incurring any additional cost.	2	2	0	0
15090	Digital health and education company with a proven program to reduce weight and thus improve non-alcoholic fatty liver disease (NAFLD) for its members.	6	6	0	6
16171	Virtual cybersecurity officer services to small and medium-size organizations.	0.5	6	5.5	3
16705	In-person eSignatures.	5	6	1	1
16657Y	Automating the Pacemaker and Implantable Cardiac Defibrillator (ICD) remote monitoring workflow.	1	1	0	0
10191U	Wireless link that offers fiber-like speeds for the back haul and last-mile connection in the network.	2	2	0	1
16722	A search engine for "alternative TLDs" that use gTLDs or Web3 TLDs (such as Handshake).	2.5	4	1.5	2
8189M	Unmanned aerial vehicles (UAVs) to detect methane at solid waste landfills.	16	17.5	1.5	0
15179	Hum enables internet service providers to earn more revenue, automate service, and sell more bulk and resident choice deals in multi-dwelling units.	4	7	3	3

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
11541M	SaaS platform which allows authenticated revenue generating subscriptions to smart road services.	2	2	0	10
16459	Offers neuroscience equipment sales, consulting, and commercialization services to support the growth of the neuroscience research community.	5.5	4.5	-1	0
15389	A pay-it-forward system to purchase gifts of cheer for their friends and family.	2	1	-1	1
16826	An accredited online elearning business program that specifically targets the public service sector and non-traditional students.	0	0	0	-
16577	An outpatient mental health center.	13	21	8	3
16534	Software as a service to provide ongoing recommended supply chain "plays" that reduce costs and maximize impact.	1	1	0	3
16861	A Print-On-Demand platform offering Art on fabric in 8 giant sizes (up to 9' x 12') that can be installed in seconds.	0	1	1	0
16509	A friending app that shows users within a fixed radius based on a compatibility algorithm using shared interests and interest compatibility.	3	3	0	1
11399	Non-thermal plasma devices that prevent airborne transmission of infectious diseases to and from livestock.	2	2	0	2
16420	A multi-tiered building-integrated thermometric home energy management system (HEMS) applied at the interior, surface-level of the building envelope.	0	1	1	1
14685	A self-writing clinical note for doctors based on patient appointments and interactions for insurance purposes.	2	3	1	2
12929YM	A platform for car enthusiasts and auto businesses to experience activities like tours, workshops, events, or adventures around individuals or auto businesses to share their cars, passion, auto skills, or expertise with guests.	1	1	0	5
14794U	A dynamic standing desk aimed at combating sedentariness and promoting physical activity in the office space.	1.5	3.5	2	2
16653Y	A mobile phone application that will serve as the first common platform for parents and families of individuals with cognitive and developmental disabilities.	1	3	2	4
11708U	Software innovations for advanced manufacturing automation with our current product being vibration compensation software.	2.5	4.5	2	0
16658	An options dashboard that will provide useful insights to retail investors at a competitive price.	5	4	-1	2
16775Y	A marketplace for discovering, planning, and booking small corporate events and team experiences in a variety of unique spaces.	1	1	0	0
7131	An education and evaluation application to reduce high diagnostic error rates.	2	1.5	-0.5	0
16183	Linking NFTs to physical objects.	2	2	0	0
16561U	An educational technology (edtech) solution that powers engaged learning through multi-player educational role-playing simulations.	1	1	0	0
16308	Educational mobile app that generates interactive captions for college lectures.	1	1	0	0
11862U	A mobile application delivering cognitive behavioral therapy to the hands of the people who need it most.	5	4	-1	1
16274	An augmented reality multimedia hardware and software package designed and patented for patient safety.	2	6	4	4
16371	Create satellites that can process large SAR collections on orbit to reduce downlink data volume.	3	2	-1	0
13621	An augmented reality solution for the treatment of phobias and other anxiety disorders to provide clinicians with a broad spectrum	0	0	0	0

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
	of stimuli to perform exposure therapy regardless of location and physical resources.				
15266	A unified multi-facing ecosystem that handles the entirety of an individual's life.	3	6	3	0
11960	Background check for customers who use online services.	2	2	0	0
11634M	Higher energy density battery that is non-flammable and cost less.	5	5	0	2
11606Y	An exploration application that allows users to collect locations and attractions visited and be presented in the style of a fun game that lets user earn points, level up in eight different categories, and achieve milestones.	2	2	0	1
11986	A cloud-based video studio that allows users to stream live self-produced video content to all the major social media platforms.	2	2	0	2
155 Companies Total (19 Ypsilanti, 22 Mobility, 37 University)		613	717.5	104.5	245

Appendix B: Entrepreneur Boot Camp Companies Served

Uniq ID	Account Description	Retained FTE's	Current FTEs	New FTEs	1099s
16786	A developer of smartwatch-based software solutions designed to elevate engagement and outcomes in health and wellness.	2.5	2.5	0	2
17058	An app and API service for 1099 contract workers, self employed, and corporate sales workers to automate and estimate their annual withholding.	0	0	0	0
17033U	An online platform that helps teachers find and connect with change-makers in their community	1	1	0	0
17049	A smart, screenless learning system that teaches young children how to read while they play, and gives parents peace of mind that they have support watching for the signs of autism and dyslexia.	1	1	0	0
16928	A cutting-edge all-in-one hydrogen station with AI/ML energy management system designed to make hydrogen refueling easy, smart, and convenient.	2	1	-1	0
17032U	Solving inefficiency in the drug discovery pipeline.	1	1	0	0
16860	A novel automated natural cold process soap machine.	1	1	0	2
14814	A smart technology application linking health conditions with exercise, rehabilitation, and fitness.	4.5	4.5	0	0
16414	A free-to-use website and mobile platform that uses A.I. to provide personalized gift recommendations.	3	2	-1	0
16864U	Develop new synthetic materials composed entirely of plant-derived precursors	2	2	0	0
16872	A unified data-ready platform for massive organizations such as cities to help them bring together a wide variety of previously siloed data and connect the dots between human activities and greenhouse emissions.	1	1	0	0
16625	A digital platform enabling communication and clinical collaboration across the care continuum with patients/families, providers, and network affiliates.	1	1	0	0

Uniq ID	Account Description	Retained FTE's	Current FTEs	New FTEs	1099s
16528	A community-based platform that enables instant communication between experienced handymen and self-reliant homeowners to resolve house repair/improvement problems.	3	1	-2	1
16538	A virtual wellness coaching and support group platform guiding members toward optimal health to support pregnancy.	1	1	0	6
16566	A proprietary online platform that will utilize blockchain technology to offer micro-denominated bond securities to non-accredited investors.	2	1	-1	0
16733M	A Hub-to-Hub middle-mile highway driving - eliminates the need to hire more truck drivers while reducing operations' costs.	1	1	0	0
16477	Transforming agriculture waste into Nanocellulose compositions while reducing environmental damages and generating significant economic benefits.	8	2	-6	0
12190	Makes control data easy and accessible to build predictive economic models.	4	4	0	0
16863	A college sports collectible company that creates digital collectibles and metaverse experiences for college sports fans.	5	5	0	0
16861	A Print-On-Demand platform offering Art on fabric in 8 giant sizes (up to 9' x 12') that can be installed in seconds.	1	1	0	0
16420	A multi-tiered building-integrated thermometric home energy management system (HEMS) applied at the interior, surface-level of the building envelope.	1.5	1	-0.5	0.5
16462	Allows content creators to raise funds and monetize their work by selling Web3 Tokens that give their audience perks and participation rights.	3	3	0	0
14794	A dynamic standing desk aimed at combating sedentariness and promoting physical activity in the office space.	2	3.5	1.5	2
16799MU	Enhances current AV capabilities by providing improved safety and route guidance through high resolution maps, precise GPS positioning, and better object tracking for vehicles operating in high risk areas by shifting the sensing and computational load away from AVs.	1.5	1.5	0	0
16456U	Helps everyday voters by making candidate information easily accessible, having quizzes to understand the democratic process better, and generating new ways to donate and support candidates for small donors in America.	1	1	0	0
16351MU	Retrofitting kits that give consumers the opportunity to upgrade their gasoline dirt bikes to electric.	2	2	0	0
26 Companies Total (3 Mobility, 6 University)		56	46	-10	13.5

Appendix C: Incubator Companies Served

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
11701M	Mobile application for autonomous vehicles and pedestrians to help avoid collisions.	6	5.5	-0.5	1
16154U	A urinary catheter extension for early UTI detection.	2	2	0	4
4803U	An intuitive integrated display that retrieves medical data.	6	6	0	1
7374	Augmented reality application for immersive digital experiences based on children's books.	6	6	0	3
16411	A home-based, over-the counter diagnostic wearable that detects early-stage SARS-CoV-2 and influenza related antigens, ESCoT™.	1	1	0	2

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
15264	A creator financing and NFT marketplace.	4	5	1	2
12128U	An artificial intelligence software platform that uses real-time in the catheterization lab to process conventional angiograms and automate a quantitative clinical assessment of coronary artery disease (CAD) patients.	3	5	2	1
16869	A retail technology startup that uses RFID to enable autonomous checkout, inventory management, and loss prevention in brick-and-mortar stores.	2	2	0	2
16989U	A web-based, interactive platform to deliver the training.	1	1	0	0
16562U	ASKO Holdings is the parent company with ASKO Therapeutics and ASKO Pharma as two entities under it.	3	3	0	0
16547	Develops novel and more effective therapeutics in the areas of cardiovascular, metabolic, and infectious diseases.	3	3	0	0
16563U	Aims to develop novel and more effective therapeutics in the areas of cardiovascular, metabolic and infectious diseases.	3	3	0	0
14252M	High-definition maps for simulation.	25	25	0	0
8636Y	Guided meditation and respiratory biofeedback application.	2	2	0	10
11661YM	Industry 4.0, smart inspection for manufacturing.	3	3	0	1
16648M	Frictionless Intersection Plan.	4	4	0	0
16407Y	An all-in-one marketplace and digital platform for end-of-life and after-loss planning.	1	1	0	0
16365M	The next generation of eco-friendly, energy-saving ice management systems.	7	7	0	1
16271Y	Dedicated to translating the business potential of breakthrough bioscience technologies in targeted geographies.	1	2	1	0
14698	A music streaming service designed to compensate artists better and deliver fans a uniquely intimate listening experience.	3	3	0	
15113M	Electric bike manufacturer.	1	1	0	0
16786	A developer of smartwatch-based software solutions designed to elevate engagement and outcomes in health and wellness.	2	2.5	0.5	2
8912Y	Digital offering that seamlessly transitions Instagram users (who express interest in an item), from a viewer position to a shopping position.	2	2	0	3
16662M	Develops and manufactures camera-based Advanced Driver Assistance Systems (ADAS) solutions to make the roads safer today.	45	45	0	0
11807U	A medical device to treat atherosclerotic calcified plaque (CP) indicated for peripheral artery disease (PAD).	2	3	1	15
16841M	AI tools to automate the creation of photorealistic, lightweight, intelligent and accurate 3D models for all residential areas of the world, for gaming, simulations, interactive media, digital twinning and metaverse.	0	0	0	0
11560	A subscription platform giving entertainers and bands with large fan bases an outlet to share original content with paying subscribers.	2	2	0	3
16295U	A computer program (cellular automata model, or CA model) to predict the microstructure and properties of the printed metal parts based on the material chemical compositions and additive manufacturing processing parameters.	0	0	0	0
16599	Allow users to set up a legally binding contract that only allows funds to be pushed after both sides are 100% confident that the corresponding section of the contract has been fulfilled.	2	1	-1	2

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
16625	A digital platform enabling communication and clinical collaboration across the care continuum with patients/families, providers, and network affiliates.	1	1	0	0
17030Y	A collection of electronic games that, as part of the play experience, require the user to perform speech challenges to engage in speech therapy.	3	3	0	0
15351	An innovative Operating Room Efficiency Platform that enables the healthcare system to reduce stress in the OR, total cost of treatment, and increase patient wellbeing while achieving optimal quality of care.	1	2	1	0
7617	U-M Startup accelerator.	2	2	0	0
16566	A proprietary online platform that will utilize blockchain technology to offer micro-denominated bond securities to non-accredited investors.	1.5	1	-0.5	0
13635	A SaaS company that targets the use of wearable sensors and related data analyses to identify COVID-19 infection early before symptoms are apparent.	1	1	0	3
15386M	Safe battery collection, transport, and storage for highly combustible batteries.	2	2	0	0
16624U	A new, highly disruptive electric propulsion (EP) technology for maneuvering satellites in space.	2	2	0	0
13680	A centralized portal for individuals to action their rights and view the locations in which personal data has been provided to companies.	3	6	3	3
15281Y	Automated small to medium business loan approval process to accelerate loan approval.	2.5	4.5	2	0
15410M	An "optimized fleet-as-a-service" to commercial fleet managers for multiple, specific purposes/uses.	1	2	1	2
0701	On-line media management	8	8	0	0
16733M	A Hub-to-Hub middle-mile highway driving - eliminates the need to hire more truck drivers while reducing operations' costs.	1	1	0	0
8419M	Next-generation freight marketplace focused on better user experience, lower freight costs, and regulatory compliance.	5	6	1	1
8050	Employee engagement SaaS app.	8	6	-2	0
8457Y	A music technology company that provides 24/7 self-service music rehearsal and electronic production rooms studio space.	3	3	0	2
16436	A software that is intended to deliver programming and track progress of athletes for strength coaches in their gym.	0.5	0.5	0	1
14691	A material innovation company supplying industrial hemp to the automotive plastics market.	2	5	3	2
11540MU	Manufacture and sell steel fiber for ultrahigh performance concrete (UHPC).	2	4	2	4
17007Y	To provide software services, business consulting services, and import parts and trade.	0	0	0	0
8366Y	Physiological performance data analytics company.	3	1	-2	0
11918	Health management platform connecting patients, providers, and caregivers to effectively manage patients with chronic conditions.	3	3	0	5
16247Y	A comprehensive B2B-e commerce and inventory management platform - focusing on helping grocery stores and restaurants with access to the best wholesale suppliers at the best prices.	5	4	-1	0
12842M	Last mile robot delivery solutions.	4	6	2	2
11324M	Human behavior prediction using artificial intelligence.	3.5	3.5	0	0

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
11880Y	In-application music discovery competitions that reward listeners for competing and discovering new music.	0.5	0.5	0	0.5
15107Y	An application for peer-to-peer tool and equipment rentals.	2	2	0	0
1782YM	Laser imaging systems integrator, for combustion diagnostics, materials, and spectroscopic analysis.	7	7	0	3
16642Y	An app and platform geared towards interactive solutions for GenZ relating to career, housing, fintech, etc.	1	1	0	0
11635	A one-stop shop where customers can purchase all their nightlife products in one place.	15	22	7	15
11900M	Meteorological technology intelligence that produces connected vehicle sensor data for improved road safety, improved weather forecasting, and for monetization of data for owners.	3	2.5	-0.5	0
12902Y	A drug formulation to help chronic kidney disease patients.	2	2	0	4
14829	Training tool for medical purposes.	1	0.2	-0.8	1
16236YM	A technology company that provides mobility-as-a-service to individual, retail, and commercial customers in need of last mile delivery.	1	2	1	2
16813	An early-stage drug discovery SaaS that manages drug discovery project data for academic and corporate entities.	1	2	1	0
0289M	Creating an automotive and security technology portfolio.	3	2	-1	0
16143	A company that holds the exclusive license to commercialize a novel compound preventing brain cell destruction from Beta Amyloid Protein (BAP).	7	3	-4	0
12098M	Indoor positioning technology to provide traffic control and logistics support for hospitals and healthcare systems.	13	13	0	2
8476	Coach startups, help perfect their investor pitches and connect entrepreneurs with investors.	0	0	0	0
16785	Helps organizations identify and answer illusive entanglements of problems presented by the quickly-churning global information economy.	1	1	0	0
12884Y	Eco-friendly prescription medication bottle manufacturing.	2.5	2	-0.5	8
11483	End-to-end e-commerce platform empowering social influencers to take their brand to the next level by creating, marketing, and selling exclusively designed products to enable conversion of their loyal and engaged followers and monetize them into customers.	2	1	-1	2
14242U	A cloud-based computational teaching and learning platform.	2	1	-1	0
16656	Game development studio focused on creating a next generation, free-to-play, live service, social shooter.	3	1	-2	10
16739U	Use of artificial Intelligence in the processing of endoscopy videos.	2	2	0	0
11105	Do-it-yourself financial planning in a digital platform.	4	10	6	10
8122	Platform for pharmacies and physician offices to source prescription drugs.	2	2	0	1
12937	A self-sanitizing door handle by ultraviolet (UV) light.	3	2	-1	0
11966	Accurately putt using this golf putting aide technology.	2	2	0	0
8609	Quotation lifecycle management (QLM) applications focused on managing the interaction between our customer companies and their customers and suppliers.	4	5	1	5
8384	Application and cloud service to connect dietitians and their clients for efficient, timely interaction.	3	3	0	1
12903	A holistic financial platform tailored to couples for better expense sharing and payments.	0	2	2	2

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
8797	Off-the-shelf machine learning applications.	50	50	0	5
7754U	Sensors and measurement devices for electromagnetic radiation enabling essential technologies.	9	9	0	3
16464M	A unique electric vehicle thermal management system.	2	2	0	0
11865	Advertising technology platform that makes local advertising faster, less expensive, and more accountable.	3	3	0	3
11985YM	Self-contained, pre-engineered, and pre-configured, mobile solar nano grids with a variety of solutions inside the nano grid.	5	22	17	5
2203	Online furniture inventory management that allows targeted retailer interaction.	9	10	1	0
16657Y	Automating the Pacemaker and Implantable Cardiac Defibrillator (ICD) remote monitoring workflow.	1	1	0	0
16722	A search engine for "alternative TLDs" that use gTLDs or Web3 TLDs (such as Handshake).	2.5	4	1.5	2
8189M	Unmanned aerial vehicles (UAVs) to detect methane at solid waste landfills.	16	17.5	1.5	0
11541M	SaaS platform which allows authenticated revenue generating subscriptions to smart road services.	2	2	0	10
16459	Offers neuroscience equipment sales, consulting, and commercialization services to support the growth of the neuroscience research community.	5.5	4.5	-1	0
15389	A pay-it-forward system to purchase gifts of cheer for their friends and family.	1	1	0	1
12090	A sensor, cloud-based data management and analytics system application component for athlete's interaction and communication.	0.5	0.5	0	1
12911	Works with organization's cross-functional leadership teams to translate existing (or enhanced) data, insights, and institutional knowledge into a readily actionable experience design strategy that unleashes new sources of revenue in both the near- and longer-term.	1	1	0	0
17008	Utilizing electronic leak detection devices and existing building materials to can give building owners the opportunity to extend the life cycle of their roof.	1	1	0	0
16348	An aphrodisiac chocolate edible experience made for two.	2	2	0	6
8591	Compliance training SaaS platform, primarily focused on safety and security issues, in particular, workplace violence prevention (WPV) and active shooter preparedness.	2	2	0	1
15352	A venture capital firm.	1	1	0	0
16653Y	A mobile phone application that will serve as the first common platform for parents and families of individuals with cognitive and developmental disabilities.	1	3	2	4
16658	An options dashboard that will provide useful insights to retail investors at a competitive price.	5	4	-1	2
16775Y	A marketplace for discovering, planning, and booking small corporate events and team experiences in a variety of unique spaces.	1	1	0	1
7131	An education and evaluation application to reduce high diagnostic error rates.	1	1.5	0.5	0
16371	Create satellites that can process large SAR collections on orbit to reduce downlink data volume.	2	2	0	0

Uniq ID	Account Description	Retained FTEs	Current FTEs	New FTEs	1099s
16928	A cutting-edge all-in-one hydrogen station with AI/ML energy management system designed to make hydrogen refueling easy, smart, and convenient.	2	1	-1	0
15266	A unified multi-facing ecosystem that handles the entirety of an individual's life.	3.5	6	2.5	0
11960	Background check for customers who use online services.	2.5	2	-0.5	0
11606Y	An exploration application that allows users to collect locations and attractions visited and be presented in the style of a fun game that lets user earn points, level up in eight different categories, and achieve milestones.	3.5	2	-1.5	1
108 Companies Total (23 Ypsilanti, 24 Mobility, 14 University)		432	472.7	40.7	189.5

Appendix D: Strategic Marketing and Communication Services

Uniq ID	Marketing Strategy Type	Sessions	New Company
12031MU	Marketing needs assessment, strategic marketing session	2	1
8255Y	Strategic marketing session	1	
16952Y	Marketing needs assessment	2	1
8636Y	Strategic marketing session	1	
16482	Content development, marketing resources and educational materials, strategic marketing session	6	
16407Y	Content development, content review and edits, strategic marketing session	24	
0585	Content development, content review and edits, marketing referral, strategic marketing session	40	
16271	Strategic marketing session	2	1
16414	Strategic marketing session	2	
16864U	Strategic marketing session	1	
16879Y	Marketing needs assessment	1	1
15408Y	Content development, strategic marketing session, content review and edits	9	
16982	Strategic marketing session	3	
15388Y	Content development, content review and edits, strategic marketing session, technical assistance	10	
15282Y	Strategic marketing session	2	
15421Y	Strategic marketing session	2	
15351	Strategic marketing session	3	
16895Y	Marketing needs assessment	1	1
15386	Strategic marketing session	1	
16266	Content development, content review and edits, strategic marketing session	21	
16438	Strategic marketing session, content review and edits	4	
15281Y	Content development, strategic marketing session	1	
15410	Content development, content review and edits, strategic marketing session	21	
16855	Marketing needs assessment, strategic marketing session	3	1
11252Y	Marketing resources and educational materials, strategic marketing session	4	
15335U	Strategic marketing session	1	

Uniq ID	Marketing Strategy Type	Sessions	New Company
11838	Content development, marketing needs assessment, strategic marketing session, marketing resources and educational materials	8	1
16643	Strategic marketing session	2	
11110U	Marketing needs assessment, strategic marketing session	7	1
12072	Strategic marketing session	1	
16251	Content development, content review and edits, marketing referral, strategic marketing session	3	
16815	Marketing needs assessment, strategic marketing session	2	1
16871	Marketing needs assessment, strategic marketing session	2	1
7282	Content development, strategic marketing session	4	
15288	Strategic marketing session	3	
16843	Marketing needs assessment	1	1
16834	Marketing needs assessment	1	1
16642	Strategic marketing session	1	
0486	Content review and edits, strategic marketing session	6	
16236Y	Strategic marketing session	3	
16718U	Strategic marketing session	1	
16837	Marketing needs assessment, marketing referral	2	1
17057Y	Marketing needs assessment	1	1
6977Y	Content development, content review and edits, strategic marketing session	15	
16883Y	Marketing needs assessment, strategic marketing session	2	1
0289	Strategic marketing session	3	
16878	Marketing needs assessment, other	2	1
16613	Strategic marketing session, marketing needs assessment	3	1
16842Y	Marketing needs assessment	1	1
16659	Content review and edits, strategic marketing session	6	
17070	Marketing needs assessment	1	1
15090	Strategic marketing session	1	
13678	Marketing needs assessment	1	1
17008	Marketing needs assessment	1	1
16577	Marketing needs assessment	1	1
16509	Strategic marketing session	2	
16839Y	Marketing needs assessment	1	1
16856	Marketing needs assessment	1	1
17006Y	Marketing needs assessment	1	1
16775Y	Strategic marketing session, other	3	
16930	Marketing needs assessment, technical assistance, other	3	1
16351	Content development, marketing referral, strategic marketing session		
16829Y	Marketing needs assessment	1	1
11606Y	Content review and edits	2	
64 Companies Total (1 Mobility, 22 Ypsilanti, 7 University)		272	27

Appendix E: Microloan Program

The table below lists all companies that received a Microloan from the start of the program through June 30, 2023. The Microloan program was discontinued as of June 30, 2017, and we are only monitoring portfolio returns this year.

Number of loans currently outstanding:	4
Current total loan amount outstanding	\$213,837.74
Loan amounts repaid this fiscal year	\$0
Loans written off this fiscal year	\$81,210.54
Cumulative Jobs retained	113.5
Cumulative net Jobs created	88
Payment made back to LDFA this fiscal year	\$0
Current balance of the microloan account	\$10,003.41

Appendix F: Tables

F:1 Annual Served Metrics

FY 2022-2023	Companies Served	Retained FTE	Current FTE	New FTE	Average
City of Ann Arbor	169	755	850.5	95.5	0.57
City of Ypsilanti	24	48	49	1	
Out of Service Area	13	107	120.5	13.5	
No Legal Entity	17	23	26	3	
Business Closed	8	11.7			In Business
Total	231	944.7	1046.0	113.0	223
			Net	101.3	97%

F:2 Cumulative Served Metrics

FY 2018-2023	Companies Served	Retained FTE	Current FTE	New FTE	In Business
City of Ann Arbor	285	771.0	1433.0	662	409
City of Ypsilanti	36	64	73.5	9.5	86%
Out of Service Area	61	339.5	513.5	174	
No Legal Entity	27	41	44	3	
Business Closed	68	133			
Total	477	1348.5	2064.0	848.5	
			Net	716	

Glossary

In an effort to reduce unnecessary complication, SPARK and the LDFA keep definitions of terms consistent with MEDC. Included for reference are applicable definitions provided by the MEDC:

Companies Served

The number of tech companies that contractor provided services to, including accelerator grants, incubator space, mentoring, consulting, training, etc.

Full-Time Equivalent

All W-2 employees and full-time workers compensated in equity. All part-time employees count as 0.5 FTE. Interns and independent contractors (1099) are not included in this definition.

Jobs Created

New FTEs or “Jobs Created” are calculated by subtracting the retained jobs for the particular service we provided from the current job count, which gives us the added jobs since that particular engagement started. Quarterly report values are representative of job growth for all time served companies, as pulled by data given within the quarter. Annual report values are representative of job growth for companies served with the fiscal year, as pulled by data given within the year and the annual survey.

Jobs Retained

Number of jobs retained by the companies that contractor served or are incubator clients. Does not include contract positions. Basically, includes the number of positions or employees at the companies that have been retained because of the funding from the incubator or because of the services that the incubator provided.

Minority Owned Business

A business owned by a person with one or more of the following minority identities: Disabled, veteran, woman, ethnic-minority, LGBTQIA+.

New Companies Created

Number of new companies created as a result of contractor’s involvement. Companies can be defined as sole proprietorship, LLC, Corp, etc. Involvement can mean: 1) contractor provided services or funding to the company, 2) the company is located in contractor’s incubator, 3) the company is a university spin-out, 4) contractor spoke with the newly formed company and provided them help with the next steps in building his/her company for example other resources, training classes, etc., or 5) contractor spoke with the CEO/CTO prior to the company formation. A company is only counted as ‘new’ if it is incorporated within the subsequent 12 months of the service provided.

Tech Company

A business in which research and development brings forth an innovative product or process. The innovation typically involves intellectual property that contributes to a strong competitive advantage in the marketplace and serves as a foundation for a high rate of growth.