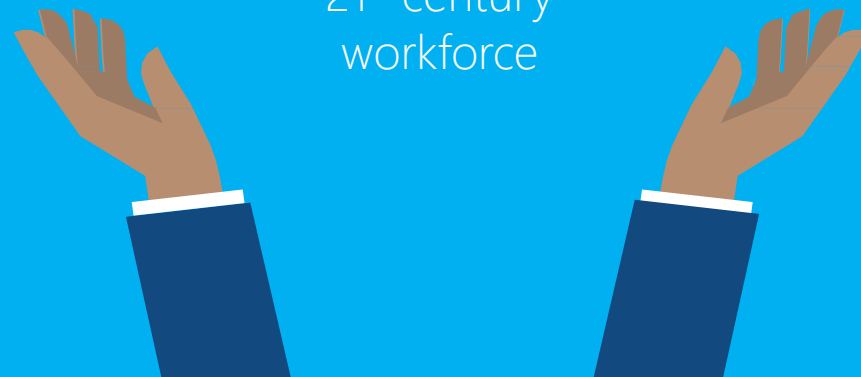Tech Jobs Academy

A playbook
for building a
21st century
workforce

"Tech Jobs Academy was the most transformative experience I've ever had in my life."

— Abel Chajet, Graduate

Welcome

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Chapter 1: Overview

What is Tech Jobs Academy?

An innovative approach to the skills gap.

Too many businesses can't find the right talent and too many capable people don't have the skills that are in demand today. Tech Jobs Academy helps talented adults acquire in-demand IT skills, enabling them to gain employment with local businesses – including the hundreds of thousands of Microsoft partner companies worldwide – in need of precisely these 21st century skills.

Every community's greatest asset is its people. Tech Jobs Academy was created for those who have everything but opportunity. The program expands access to in-demand technical training to unemployed or underemployed adults who are passionate about launching careers in technology. With a hybrid learning model that blends hard skills and soft skills, Tech Jobs Academy combines a focus on real-world projects with labs, lecture, and certification exams. Through roughly 1,000 hours of intensive skills development, graduates earn in-demand skills and a path toward a rewarding career in tech.

Billions of taxpayer dollars are spent each year on workforce development, but, too often, the skills taught are out-of-date or not actually desired by employers. Tech Jobs Academy solves the disconnect between those public sector investments and the needs of industry, producing an outstanding return on investment for society.

4 month
full-time program

1,000
hours of training

IT skills
e.g. cloud &
server administration

"The future is already here – it's just not very evenly distributed."

— William Gibson

Why Tech Skills?
They're in demand by employers.

According to data from the U.S. Bureau of Labor Statistics, there are currently more than five million open jobs in the United States of America, including 500,000 tech jobs – a number expected to surpass one million by 2020 due to increasing demand for technical skills in various sectors of the economy.

Half of employers report difficulty finding job candidates with the right skills. Meanwhile, nearly one-third of Americans live at or below 200% of the poverty line – including a disproportionate amount of women and people of color. Tech skills provide opportunity because, beyond the sheer number of available tech jobs, these so-called middle-skill careers tend to pay more than non-technical ones at similar levels. In real terms, median wages in the U.S. have been stagnant over the last 15 years. However, average wages for IT jobs rose nearly 8% in 2015 alone. Additionally, in 2015, one-third of American families had no savings at all – a critical barrier to access, since the cost of a coding bootcamp or similar middle-skill training program exceeds $10,000 on average. For the many millions of Americans with no savings or who live below the poverty line, these barriers are often insurmountable – making scalable, publicly funded programs like Tech Jobs Academy critical to addressing the opportunity divide.

The private sector possesses unique resources and expertise and – especially when working collaboratively with the public sector – can help distribute tech skills and opportunity for all.

Is it a Smart Investment?
Better payback than a Harvard degree.

According to a 2015 study from Georgetown University, more than $100 billion is spent each year by state and federal agencies on workforce training in the form of apprenticeships, community college, certification programs, and more. Many taxpayers believe those dollars can and should be spent more effectively and efficiently.

Tech Jobs Academy is designed to match the expenditure of public funds with in-demand skills training, allowing communities to maximize the impact of those public investments. Data from the first year shows the program delivers measurable benefit to taxpayers, with a projected 5-year return on investment (ROI) of 7.3x, even under conservative assumptions. For comparison's sake, the average Harvard undergraduate realizes a 1.4x ROI over the first five years of his or her career.

Tech Jobs Academy provides value to an entire city by helping capable members of that community transition from receiving public assistance to paying income taxes back into the system, all in a matter of months. The value of that salary can be lifechanging, not only for the Tech Jobs Academy graduate, but also for his or her family by setting the next generation on a path of opportunity.

A job is more than just a paycheck – skilled, educated, and empowered people strengthen a community.

7.3x
Tech Jobs Academy's
projected return on investment
over five years

1.4x
Harvard College's
return on investment
over five years

3 months
median time-to-employment

94.3%
employment rate

5.2x
income multiplier

Pilot Year Outcomes
New York City

Tech Jobs Academy launched in New York City in 2016. Two pilot cohorts of the program were delivered through a cross-sector partnership with the City of New York's Tech Talent Pipeline initiative, the New York City College of Technology, and employability coaches from Jobplex. After completing Tech Jobs Academy in a matter of months, 94% of those searching for jobs were hired and average salaries surged over 5x.

Based on feedback from hundreds of local employers, Microsoft identified Cloud and Server Administration as the skillset in highest demand (other areas of focus could include Cybersecurity, Database Administration, or DevOps). After the program was publicly announced in coordination with dozens of community groups, more than 500 people applied, undergoing a rigorous selection process that admitted 50 people into the new program. Each cohort of 25 trainees attended classes full-time over the course of four months. Of those who began the program, 94% graduated. For context, only 59% of matriculating U.S. college students ultimately finish. Tech Jobs Academy graduates' new job titles include Cloud Engineer, System Administrator, and IT Specialist; they work at Xerox, the Anti-Defamation League, and the City of New York, among others.

For many, Tech Jobs Academy has been a lifechanging experience, lifting them from below the poverty line into middle-class careers.

Race & Ethnicity

Other 6%

Asian or Pacific Islander 30%

Black 34%

Latino 23%

Non-Latino 77%

White 30%

Tech Jobs Academy is diverse and inclusive, with 85% of its graduates coming from groups underrepresented in technology.

Average Salaries

Earnings jump over 5x, lifting people out of poverty and into the middle class in a matter of months, not years.

$47k

$9k

50

40

30

20

10

0

Pre-Program

Post-Program

Employment Success

Unemployed 6%

94% of Tech Jobs Academy graduates who actively search for jobs find them. Most were unemployed prior to the program.

Employed 94%

John's Story

Growing up in the Bronx, John's mom would take him out to sell books on the street. At one point, his dad worked three jobs to support the family. Together, they taught him to always be on the hunt for new opportunities. Today, John has four daughters of his own to support, and he is committed to his children, just like his parents and grandparents were to him. After being underemployed for two years, John realized he needed to gain new skills to set himself apart in the job hunt and to improve his family's prospects. Upon graduating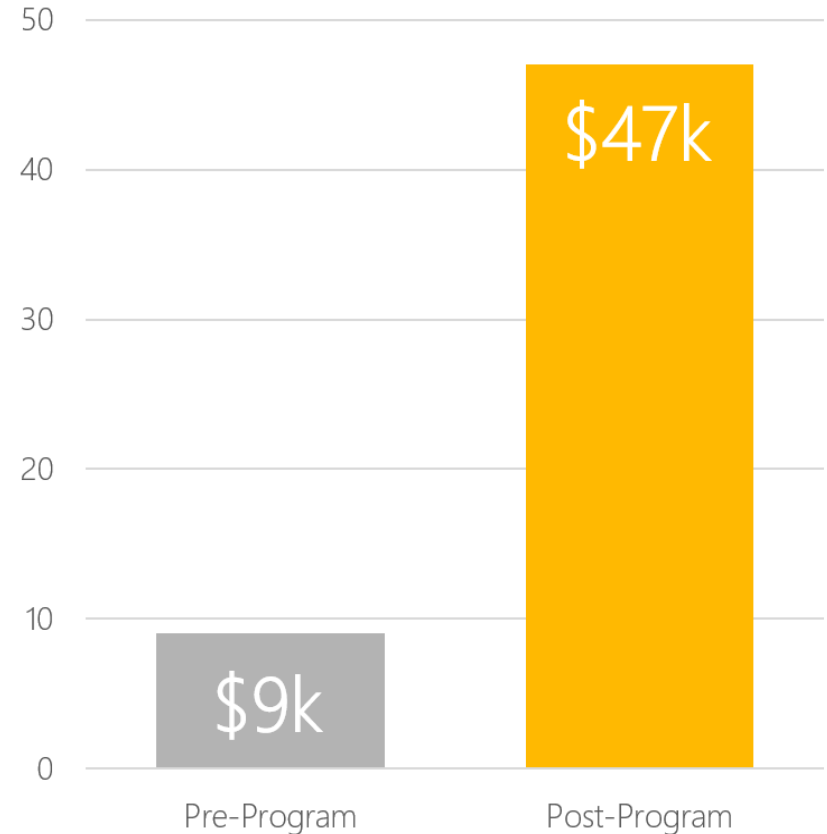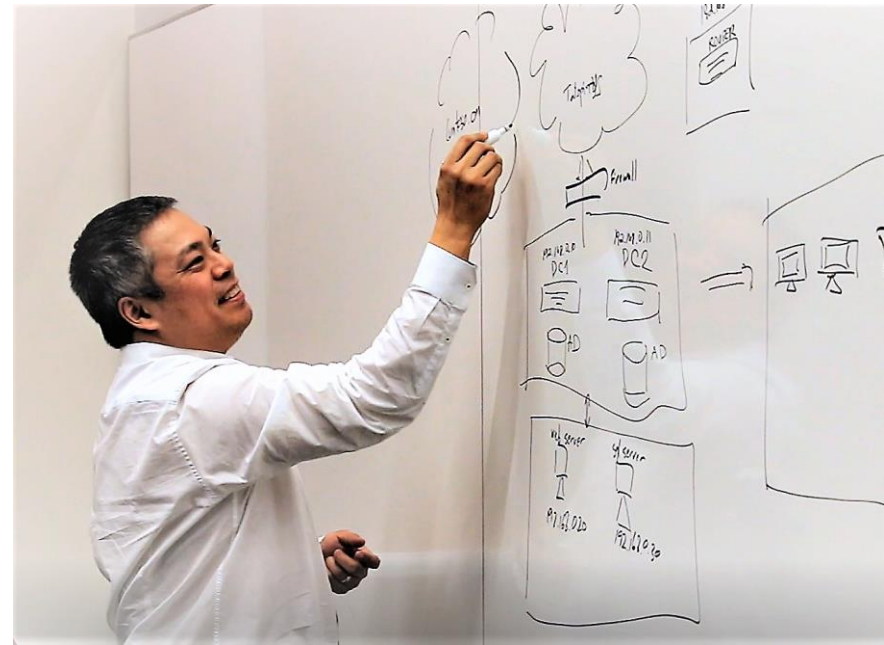 from Tech Jobs Academy, he was hired by Xerox, where he is using both his newfound technical know-how and his winning personality. John's youngest daughter even spoke at his Tech Jobs Academy graduation. "She said that I inspire her," John recalled, "and that meant all the world to me, because that's what I'm here to do. I want to be an inspiration."

Lum's Story

Lum is a war refugee. Seeking safety and a chance at a better life, his family arrived in New York City when he was just four years old. Growing up in a working-class, immigrant neighborhood in the Borough of Queens, everyone in Lum's family worked blue-collar jobs, like carpentry and plumbing. Lum started college but was forced to drop out during his third year because he could not afford to stay enrolled. He says that "programs like [Tech Jobs Academy] are a godsend" for people in his situation, where finances are a barrier to gaining the skills needed to jumpstart a new career. After meeting a Microsoft Partner Company at the career fair held the day of his Tech Jobs Academy graduation, Lum was quickly hired. He is now a network engineer with not just a job, but a career path. "It's not just work anymore," said Lum, "It's who I am."

April's Story

April had been in an abusive relationship for a number of years, when she made a difficult choice – enough was enough. It was time to leave. With her three kids, April's search for a better life began in the unlikeliest of places: a shelter for battered and abused women. There, she fought to take care of her children as a single parent while being homeless, working a job, and going to school. As April put it, "I didn't let my circumstance become who I was."

Having always loved technology, April decided that a career in IT offered the best path forward, both for herself and for her children. However, it was nearly impossible to find a program she could afford that provided sufficient skills for someone without a college degree to break into the tech industry. When April heard about Tech Jobs Academy, she jumped at the opportunity.

In class one day, April had an *aha* moment, when, as she said, "It all finally clicked...That was the crowning moment when everything I knew came together. And I finally became a geek." She believes that the skillset from Tech Jobs Academy is what put her over the top, and she quickly received a job offer after graduating from the program. April and her children now live in their own apartment, where they have safety and stability – and even access to healthcare and benefits. Having received a hand up from Tech Jobs Academy, April now pays it forward to the community through the work she does in her job: installing free public Wi-Fi into the largest public housing project in North America.

April's story was shared by New York City Mayor Bill de Blasio in his 2017 State of the City Address. With tears in her eyes, April stood and received a round of applause.

Chapter 2: Introduction to the Playbook

Chapter 2: Introduction

Technology is changing the world and tech skills are in demand now more than ever. However, there is a disconnect between the abilities in the labor force and the demands of employers, which is known as the skills gap.

Cities across the United States and around the world are eager to address their own local skills gaps. Governments have been found to be open to spending existing workforce training dollars in innovative ways *if* they can deliver new models for upskilling or reskilling their people in order to benefit from the increasingly tech-oriented 21st century economy.

Recently, Microsoft pioneered an accelerated skills training framework called Tech Jobs Academy. This playbook is a step-by-step guide to successfully implementing an instance of Tech Jobs Academy locally.

While the intensive in-class portion of Tech Jobs Academy lasts only 18 weeks, significant amounts of work must be done before and after to ensure success for the program, its trainees, employers, and the community. The playbook delineates Tech Jobs Academy into three distinct phases: Planning, Program, and Placement.
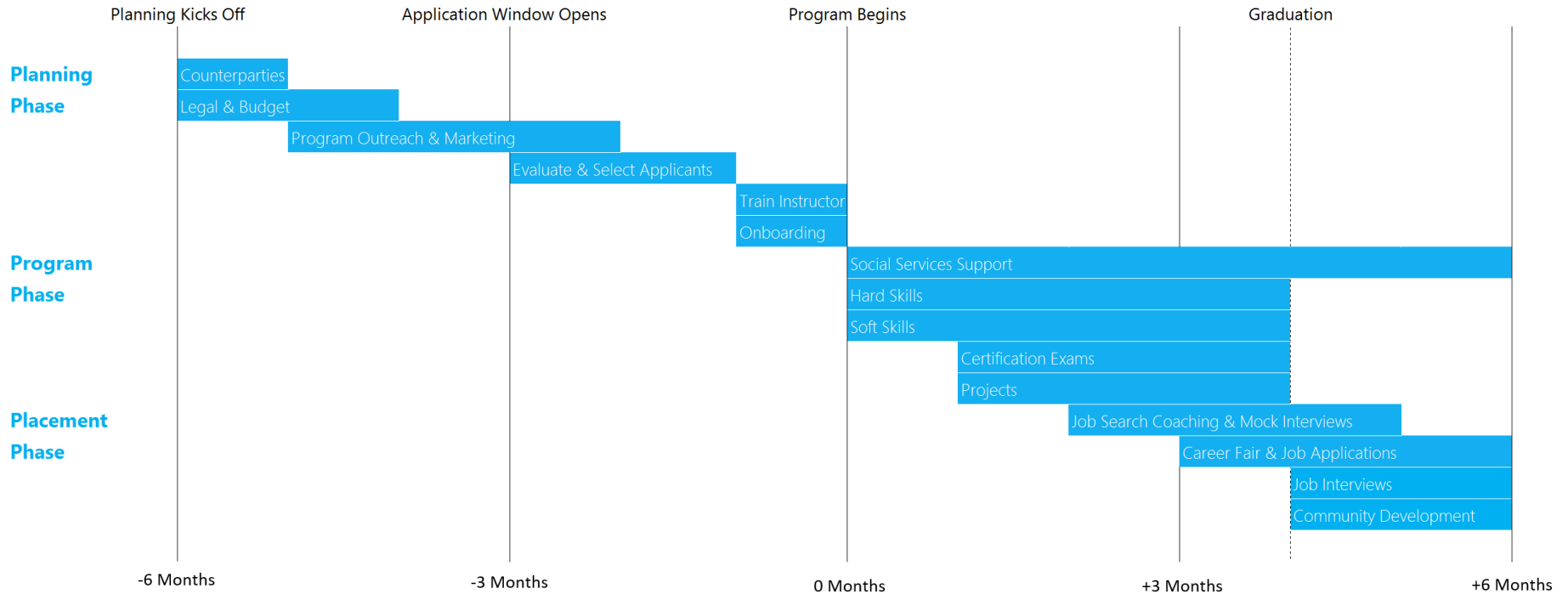
Planning
Phase

Program
Phase

Placement
Phase

The following terms and acronyms are used often throughout Tech Jobs Academy and in this Playbook.

- **Skills Gap:** A mismatch between employer needs and labor force capabilities.

- **Workforce Development:** Efforts to invest in and train people for jobs in the present-day economy, including equipping workers with the skills they need to thrive in a particular industry.

- **Coding Bootcamp:** A high-intensity technical training program that teaches web development or computer programming.

- **IT:** Information Technology.

- **Cloud:** A network of remote servers on the Internet that store, manage, and process data.

- **Server Administration:** Management of on-premises server hardware or remote servers.

- **Microsoft Partner Company:** One of the hundreds of thousands of businesses in the Microsoft ecosystem that incorporates Microsoft technology, resells Microsoft technology, or teaches others how they can benefit from Microsoft technology.

- **Microsoft Learning Partner:** A Microsoft-affiliated education company that delivers the Tech Jobs Academy curriculum day-to-day.

- **Counterparty:** An organization working with Microsoft to deliver an instance of Tech Jobs Academy. E.g. city government, a community college, or a Microsoft Learning Partner.

- **Trainee:** An accepted and enrolled Tech Jobs Academy participant.

- **Cohort:** A group of Trainees within the same graduating class.

- **Module:** A specific topic area with a learning objective that collectively – combined with other modules – comprises a Course.

- **Course:** A collection of related learning Modules that culminates in a Microsoft Certification Exam. E.g. 70-410: Windows Server.

- **Learning Path:** A collection of Courses that can lead to Microsoft certification, as developed by Microsoft Learning. E.g. Cloud and Server Administration.

- **Voucher:** An access code used to sign up for a Microsoft Certification Exam.

- **Microsoft Certification Exam:** A time-bound examination developed by Microsoft to test the knowledge of a person in one of a variety of Information Technology subject areas.

- **Certification:** The proof of knowledge received by a person who successfully passes a Microsoft Certification Exam.

- **MCT:** Microsoft Certified Trainer, a credential required to serve as an instructor teaching Microsoft technologies.

- **MCP:** Microsoft Certified Professional, the designation granted to a candidate who successfully passes a Microsoft Certification Exam.

- **MTA:** Microsoft Technology Assessment, the introductory certification exam used to assess aptitude for Tech Jobs Academy.

- **MCSA:** Microsoft Certified Solutions Associate, having earned three qualifying certifications.

- **MCSE:** Microsoft Certified Solutions Expert, having earned five qualifying certifications.

Planning Kicks Off   Application Window Opens   Program Begins   Graduation

Planning Phase

Counterparties

Legal & Budget

Program Outreach & Marketing

Evaluate & Select Applicants

Train Instructor

Onboarding

Program Phase

Social Services Support

Hard Skills

Soft Skills

Certification Exams

Projects

Placement Phase

Job Search Coaching & Mock Interviews

Career Fair & Job Applications

Job Interviews

Community Development

-6 Months   -3 Months   0 Months   +3 Months   +6 Months
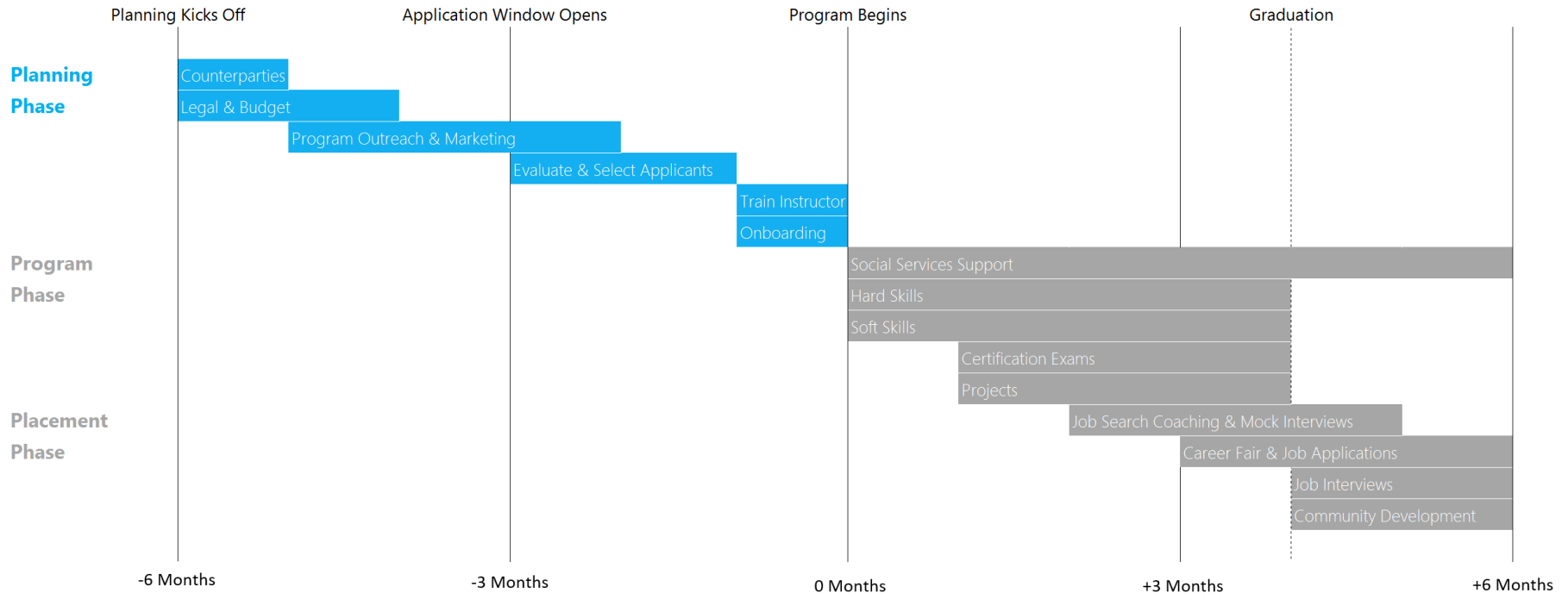
Chapter 3:
Planning Phase

It is critical to understand ahead of time the budget, roles, workload, financing structure, and legal requirements involved with running an instance of Tech Jobs Academy.

Below is a sample Planning Phase timeline, containing foundational issues that need to be addressed in order to prepare for successful Program and Placement Phases.

	Planning Kicks Off	Application Window Opens	Program Begins	Graduation

Planning Phase
- Counterparties
- Legal & Budget
- Program Outreach & Marketing
- Evaluate & Select Applicants
- Train Instructor
- Onboarding

Program Phase
- Social Services Support
- Hard Skills
- Soft Skills
- Certification Exams
- Projects

Placement Phase
- Job Search Coaching & Mock Interviews
- Career Fair & Job Applications
- Job Interviews
- Community Development

-6 Months	-3 Months	0 Months	+3 Months	+6 Months

Contrary to the so-called "train and pray" model of workforce development, Tech Jobs Academy assesses industry demand from the very start, in order to deliver the specific technical skills that local employers value most. *Before an instance of Tech Jobs Academy begins, a skills gap assessment is conducted, ensuring that what is taught is what is actually in demand. This approach leaves graduates better prepared to find full-time employment once the program concludes since they possess precisely the skills employers need most.*

Strategies:

Market research should yield a clear understanding of the tech needs of local businesses. This is a critical early step in planning for a Tech Jobs Academy instance, as the curriculum must be designed to meet this articulated industry need. Market research will also indicate which instructor skillsets will be required, and it is therefore key to complete it before committing to hire any particular Microsoft Learning Partner.

LinkedIn Workforce Report: Through monthly Workforce Reports, LinkedIn compiles up-to-date lists that outline the skills gaps in dozens of U.S. metropolitan areas. Understanding a local job market is essential to designing a curriculum that caters to local employer needs. LinkedIn Workforce Reports can be especially helpful in combination with other datasets, such as those released by the U.S. Census Bureau.

Employer Survey*: another simple-yet-useful tool is a survey. By questioning the large number of Microsoft Partner Companies in a metropolitan area, hypotheses from the LinkedIn Workforce Reports can be confirmed or called into question, leading to even higher confidence that Tech Jobs Academy delivers skills that are truly in demand by the local business community.

LinkedIn Workforce Reports can yield valuable insights, such as this ranked list of local tech skills gaps in major American cities.

Austin	Boston	Chicago
1. Software Developer	1. Software Developer	1. Software Developer
2. IT Support Specialist	2. IT Consultant	2. IT Consultant
3. IT Consultant	3. IT Support Specialist	3. IT Support Specialist
4. Technology Manager	4. Technology Manager	4. Technology Manager
5. IT System	5. Intern/Student	5. IT System
6. Intern/Student	6. IT System	6. Intern/Student
7. User Experience Designer	7. Data Analyst	7. Data Analyst
8. Data Analyst	8. User Experience Designer	8. User Experience Designer
9. Sales/Business Development/Account Management	9. Research Fellow	9. Database Developer
10. Database Developer	10. Database Developer	10. Network Engineer

New York	San Francisco	Los Angeles
1. Software Developer	1. Software Developer	1. Software Developer
2. IT Consultant	2. Technology Manager	2. IT Consultant
3. IT Support Specialist	3. IT Consultant	3. IT Support Specialist
4. Intern/Student	4. IT Support Specialist	4. IT System
5. Technology Manager	5. Intern/Student	5. Technology Manager
6. IT System Administrator	6. User Experience Designer	6. Intern/Student
7. User Experience Designer	7. IT System Administrator	7. User Experience Designer
8. Data Analyst	8. Product Development Engineer	8. Data Analyst
9. Language and Localization Specialist	9. Data Analyst	9. Language and Localization Specialist
10. Research Fellow	10. Engineer	10. Database Developer

A problem as hard as the skills gap won't be solved by one organization alone, or even one sector alone. *That said, it is critical that a single organization step forward as the "end-to-end" partner that focuses not merely on one portion of Tech Jobs Academy, but on the success of the program and its graduates overall. This "buck-stops-here" role could theoretically be played by any involved Counterparty.*

In addition to Microsoft, which created the Tech Jobs Academy framework and provides curriculum, the three other Counterparties involved in delivering an instance of Tech Jobs Academy are:

1. Funding Counterparty
2. Training Counterparty
3. Employment Counterparty

Note: Legal agreements may be needed to establish the Counterparty relationships (see Chapter 3.5).

Funding Counterparty:

Deploys workforce training funds. *A popular source of funds might be the U.S. Department of Labor's Workforce Innovation & Opportunity Act (WIOA), with which U.S. states typically empower local Workforce Investment Boards to make programmatic decisions.*

Expectations/Deliverables:
- Deems Tech Jobs Academy a worthy expenditure of public funds
- Understands how to manage public funding appropriately
- Works with other Counterparties to complete documentation
- Transfers funds on time and in full, contingent on other Counterparties fulfilling their responsibilities

Training Counterparty:

Delivers curriculum to trainees day-to-day. *Organizes instruction, assigns and assesses progress, and administers Microsoft Certification Exams. Microsoft Learning Partners – companies that are experienced in delivering Microsoft content – can be especially well-suited for this role.*

Expectations/Deliverables:
- Receives payment from the Funding Counterparty
- Sets education standards and metrics for success, also known as Key Performance Indicators (KPIs)
- Assesses progress of trainees and intervenes appropriately to improve their knowledge acquisition
- Works with Microsoft Learning to purchase courseware
- Works with Microsoft Learning to purchase vouchers for Microsoft Certification Exams
- Coordinates with Employment Counterparty

Employment Counterparty:

Helps make job connections and provides industry knowledge to guide graduates through the job search and interview process. *Note: The same organization might serve as both Training and Employment Counterparties.*

Expectations/Deliverables:
- Receives payment from either the Funding Counterparty or the Training Counterparty
- Possesses a strong network of employers in the industry and a knowledge of specific companies' hiring practices
- Coaches trainees in preparation for and during the job search process, including mock interviews
- Assigns a job search coach to cultivate a personal relationship with each trainee

3.3: Roles & Responsibilities

Although Tech Jobs Academy is designed to operate with a lightweight personnel footprint, having competent and engaged staff is essential. Ultimately, the responsibilities drive the roles and the following pages illustrate how those responsibilities could be distributed across a small team.

Positions:
- Program Manager
- Program Coordinator
- Case Manager/Social Worker
- Technical Skills Instructor
- Backup Microsoft Skills Instructor
- Teaching Assistant/Lab Technician
- Curriculum Designer
- Math Instructor
- Career Development and Interpersonal Skills Instructor
- Job Placement Coaches

Program Manager:
Serves as the point-person for Tech Jobs Academy and oversees all program operations. This role requires vision, strong organizational and communication skills, as well as an eye for detail.

Job: Full-Time, 52 weeks
Phases: Planning, Program, Placement

Responsibilities:
- Manage all aspects of Tech Jobs Academy
- Coordinate planning, program, and placement work
- Recruit trainee candidates directly and through community organizations

- Serve as the public face of Tech Jobs Academy in the city
- Report to stakeholders

Tasks:
- Run meetings
- Confirm curriculum, equipment and other aspects of program
- Ensure Tech Jobs Academy is well represented to third parties
- Keep other program personnel on task, accountable and engaged
- Manage general finances
- Work with team, particularly the Technical Skills Instructor, to design a curriculum that maximizes trainees' development

Skills:
- Big-picture thinker
- Organized
- Detail oriented
- Strong communicator

Program Coordinator:
Assists the Program Manager in all aspects of running a successful Tech Jobs Academy cohort. This role requires organizational skills, reliability, and an eye for detail.

Job: Part-time, 32 weeks
Phases: Program, Placement

Responsibilities:
- Support Program Manager in every aspect of his or her role
- Ensure all documentation is properly processed
- Manage and report relevant data

Tasks:
- Create systems to maximize productivity
- Ensure staff is up-to-date on and utilizing learning management systems
- Prepare reports to facilitate meetings and inform stakeholder decision-making
- Ensure student files/records are updated
- Collect, analyze, and maintain data relevant to Tech Jobs Academy
- Report to the Program Manager

Skills/Experience:
- Organized
- Detail oriented
- Microsoft Office and basic data analysis
- Strong written communication skills

Case Manager/Social Worker:

Provides social services and support to trainees during the intensive Program Phase and into the Placement Phase.
This role is critical to ensuring in-need trainees can deal with obstacles in their everyday lives in order to complete the program and have a shot at success. Can be full-time or part-time.

Job: Part-Time, 32 weeks
Phases: Program, Placement

Responsibilities:
- Manage student experience throughout program
- Mitigate external factors hindering program performance and employment opportunities
- Develop one-on-one relationships with each member of the program

Tasks:
- Meet with trainees regularly to understand their needs
- Work with government agencies to ensure trainees get the assistance they need, so that they can focus on the program
- Pro-actively research potential financial and social assistance options and connect trainees to the relevant resources

Skills:
- Empathy
- Knowledge of the social service ecosystem
- Organizational skills

Technical Skills Instructor:

Teaches the Microsoft technical curriculum, as well as related technical content .

Job: Full-time, 18 weeks
Phase: Program

Responsibilities:
- Teach technical content
- Ensure trainees are on track with their learning
- Identify areas of improvement in the technical curriculum
- Keep the rest of the team informed on execution of the technical curriculum and student progress

Tasks:
- Create schedule for technical aspect of the program
- Install courseware/equipment on classroom computers
- Ensure any technical/hardware/software issues are resolved
- Lecture and demonstrate technical concepts
- Assign quizzes, projects, homework
- Grade assignments and enter into learning management system
- Manage the Teaching Assistant/Lab Technician
- Report to the Program Manager

Skills:
- Familiarity teaching in a classroom setting
- Microsoft Office and basic reporting tools
- Strong verbal and written communication skills
- Must be a Microsoft Certified Trainer (MCT)

Backup Technical Skills Instructor:
A Microsoft Certified Trainer familiar with the technical curriculum and prepared to fill the teaching role, should the Technical Skills Instructor not be able to attend class.

Job: TBD, 18 weeks
Phase: Program

Responsibilities:
- Be up-to-date with the program's status, specifically that of the technical curriculum
- Be ready to fill in for the instructor at a moment's notice, including lecturing, grading, and troubleshooting.

Tasks:
- Report to the Technical Skills Instructor

Skills:
- Familiarity teaching in a classroom setting
- Strong verbal communication skills
- Must be a Microsoft Certified Trainer (MCT)

Teaching Assistant/Lab Technician:
Assists the Technical Skills Instructor in delivering the Microsoft technical curriculum, as well as related technical content .

Job: Part-Time, 18 weeks
Phase: Program

Responsibilities:
- Support trainees in keeping pace with course material
- Be ready to help trainees and instructor troubleshoot any technical issues or teach Microsoft content

Tasks:
- Be present throughout all technical lessons
- Manage the lab on days/hours during non-instructional hours when lab is available for trainees to do work
- Assist Technical Skills Instructor on grading, data collection, and report generation on trainee progress
- Report to the Technical Skills Instructor

Skills:
- Knowledgeable about Microsoft technologies (ideally a Microsoft Certified Instructor)

Math Instructor:
Teach and manage the math curriculum.

Job: Part-Time, 12 weeks
Phase: Program

Responsibilities:
- Create schedule for math aspect of the program
- Assign quizzes, projects, homework
- Grade assignments
- Work with broader program team to make sure trainees get any additional instructional support they need

Tasks:
- Report to the Program Manager
- Work closely with the Technical Skills Instructor or Microsoft curriculum designer to ensure that the math and Microsoft curricula are complementary and well aligned

Skills:
- Strong verbal and written communication skills
- Previous teaching experience, including experience managing a classroom
- In-depth knowledge of mathematical topics covered

Career Development
& Interpersonal Skills Instructor:

Manages and delivers curriculum focused on
Preparing trainees with skills that will be helpful to them
during their job search and in their future roles.

Job: Part-time, 18 weeks
Phase: Program

Responsibilities:
- Prepare trainees for employment opportunities and the job application process by creating workshops
- Report back to broader program team on trainees' progress, including identifying those who might need extra time and attention
- Maintain records of trainees' progress, including grading or feedback given

Tasks:
- Review job application materials (e.g. resume and cover letter)
- Work with trainees in groups and one-on-one to review their material
- Deliver curriculum via lectures, workshops, and one-on-one meetings with trainees
- Work closely with Technical Skills Instructor to tie in technical content when applicable
- Assign quizzes and assignments
- Grade assignments and quizzes

- Manage technical blog writing
- Report to the Program Manager

Skills:
- Understand the technical landscape, specifically in IT and the types of roles for which graduates will be applying
- Strong verbal and written communication skills
- Strong editing skills

Job Search Coach:

Works with graduates and employers to increase
employment readiness and enhance job prospects.

Job: Part-time, TBD
Phase: Program, Placement

Responsibilities:
- Conduct outreach to potential employers and companies to make them aware of Tech Jobs Academy
- Assist graduates in locating job opportunities, connecting with employers, and preparing for different stages of the interview process
- Monitor trainee progress and encourage adherence to job search best practices

Tasks:
- Resume and cover letter reviews
- Mock interviews
- Working with trainees one-on-one to help them navigate the job application process
- Identifying potential employers who might be interested in hiring Tech Jobs Academy graduates

- Work with potential employers to recommend graduates for specific positions
- Work closely with Career Development and Interpersonal Skills Instructor
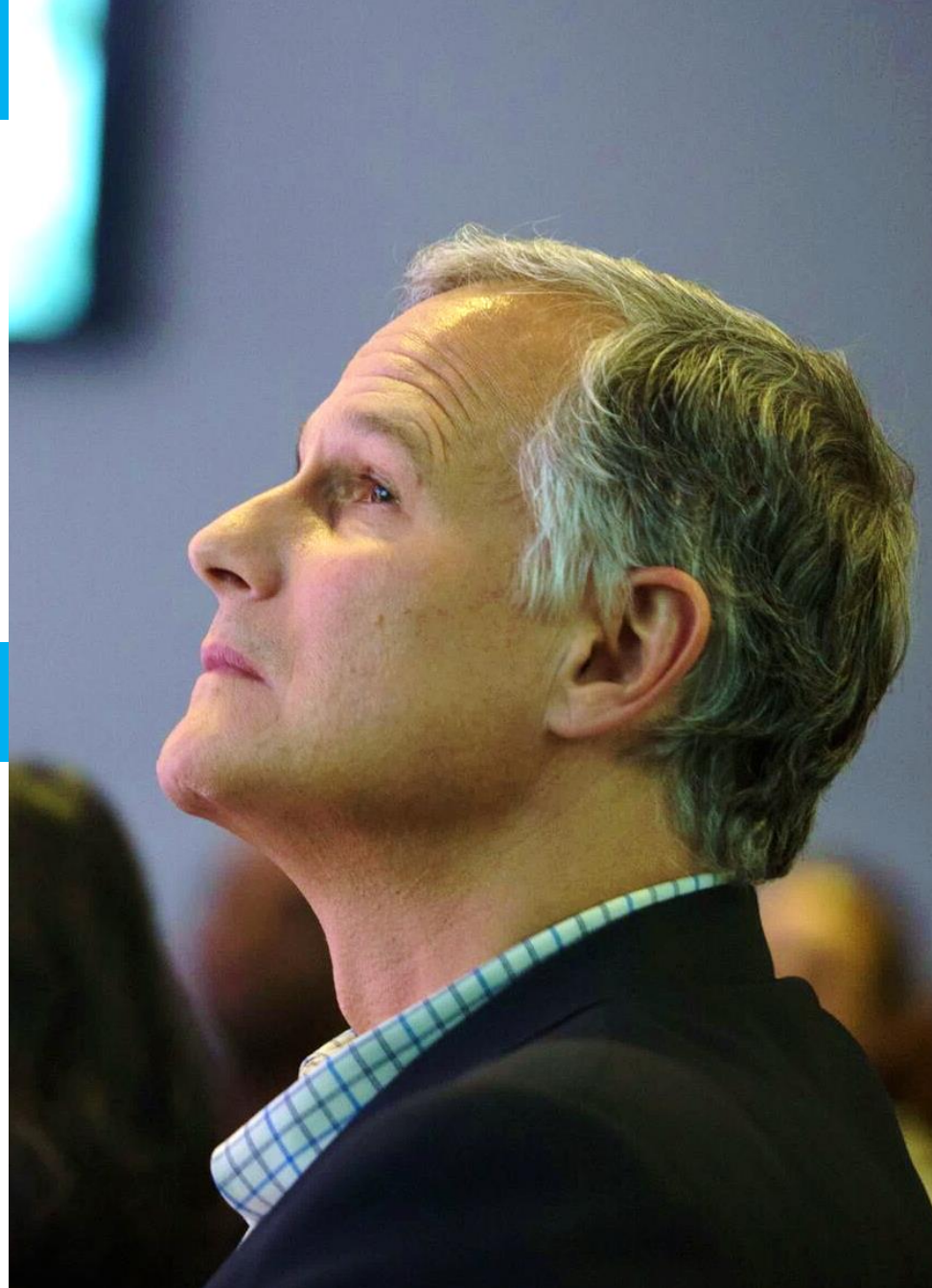- Report to the Program Manager

Skills:
- Solid understanding of technical hiring process
- Maintains established network of recruiters and companies with existing open positions for relevant roles

3.4: Budget
Planning Phase

Sample Budget:

The following pages outline financial needs for the program, including a sample budget. Actual needs are likely to vary, depending on local economics, pricing changes from vendors involved, and the specific details of a Tech Jobs Academy instance.

3.4: Budget
Planning Phase

Personnel & Services

	Full-Time / Part-Time	Salary & Benefits	Hourly Wage	Hours per Week	Weeks	Total for One Cohort	Total for Two Sequential Cohorts	Total for Two Concurrent Cohorts
Program Manager	Full-Time	$ 80,000		40	52	$ 80,000	$ 120,000	$ 80,000
Program Coordinator	Part-Time		$ 25	20	32	$ 16,000	$ 24,000	$ 24,000
Case Manager/Social Worker	Part-Time		$ 25	20	32	$ 16,000	$ 32,000	$ 16,000
Technical Skills Instructor	Full-Time		$ 150	40	18	$ 108,000	$ 194,400	$ 194,400
Technical Skills Instructor Office Hours & Overtime	As Needed		$ 150	5	20	$ 15,000	$ 27,000	$ 27,000
Backup Technical Skills Instructor	As Needed		$ 150	0	20	N/A	N/A	N/A
Teaching Assistant/Lab Technician	Part-Time		$ 25	20	18	$ 9,000	$ 18,000	$ 18,000
Math Instructor	Part-Time		$ 65	15	12	$ 11,700	$ 23,400	$ 23,400
Career Development & Interpersonal Skills Instructor	Part-Time		$ 65	15	18	$ 17,550	$ 35,100	$ 35,100
Total Personnel & Services Cost						$ 273,250	$ 473,900	$ 417,900
Per Trainee						$ 10,930	$ 9,478	$ 8,358

Job Placement

	Cost (per Unit)	Quantity (per Cohort)	Total for One Cohort	Total for Two Sequential Cohorts	Total for Two Concurrent Cohorts
Job Search Coach	N/A	N/A	$ 100,000	$ 160,000	$ 160,000
Events	$ 750	4	$ 3,000	$ 6,000	$ 4,500
Total Job Placement Cost			$ 103,000	$ 166,000	$ 164,500
Per Trainee			$ 4,120	$ 3,200	$ 3,200

Learning Materials

	Cost (per Unit)	Quantity (per Cohort)	Total for One Cohort	Total for Two Sequential Cohorts	Total for Two Concurrent Cohorts
Microsoft Course Packs & Certification Exams	$ 1,000	25	$ 25,000	$ 50,000	$ 50,000
Microsoft Technology Assessments (Pre-Qualification Exams)	$ 65	250	$ 16,250	$ 32,500	$ 32,500
TABE Reading & Math Exams (Pre-Qualification Exams)	$ 150	2	$ 300	$ 600	$ 600
Textbooks	$ 100	25	$ 2,500	$ 5,000	$ 5,000
Marketing Materials	$ 1,000	1	$ 1,000	$ 1,800	$ 1,800
Office Supplies	$ 100	12	$ 1,200	$ 1,800	$ 1,200
Travel Vouchers (e.g. subway or bus passes)	$ 120	100	$ 12,000	$ 24,000	$ 24,000
Total Learning Materials Cost			$ 58,250	$ 115,700	$ 115,100
Per Trainee			$ 2,330	$ 2,314	$ 2,302

Total Tech Jobs Academy Cost			$ 431,500	$ 749,600	$ 693,000
Per Trainee			$ 17,380	$ 14,992	$ 13,860

Budgetary Considerations:

Planning & Development:
- Curriculum/planning/grading time – incorporating changes and updating the curriculum
- Review/plan/finalize curriculum

Staff:
- Two hours per week of program meetings, including all personnel
- Up to 10 hours per week will be needed for full-time instructional personnel to conduct one-on-one tutoring with trainees and/or facilitated small groups with a teaching assistant

Implementation:
- Lab Setup – one to two weeks before class begins
    - Additional time for courseware/labs Installation, especially if switching or adding courseware
    - Additional time for new hardware
- 10 hours of feedback and Office Hours

Certifications:
- The commercial cost of exam vouchers in the U.S., as of August 2017, is $165 per exam
- "Second Shot" policy: check whether retakes are included in the cost – depending on Microsoft Learning's policies, trainees may be eligible to retake an exam once at no additional cost
- Academic Discount: consider trainees' eligibility for a discount for additional vouchers
- Study materials: MeasureUp practice exams, Textbooks

Courseware: The core of Tech Jobs Academy courseware is comprised of a curated set of Microsoft Imagine Academy Modules, specifically chosen based on the particular Learning Path of a given cohort. For example, for the Cloud & Server Administration Learning Path, the curated set of modules includes the following:

- Courseware (required): 70-410, 70-411, 70-412, 70-246, 70-247, and 70-533
    - Includes online books, labs, and potentially exam vouchers
    - *Note: If an involved Counterparty is an academic institution that has an IT Agreement with Microsoft, they would be eligible for academic pricing. Courseware for academic institutions can be purchased a la carte.*
- Instructor Courseware
    - If hiring a Microsoft Certified Trainer, instructor courseware does not need to be purchased
    - If purchased, instructor courseware is reusable

Physical Textbooks (optional): Physical textbooks may be cost-effective, as they can be reused over multiple cohorts.

Travel Assistance: Bus, subway, or other mass transit vouchers are an important benefit to trainees during both the instructional phase and employment phase, allowing them to arrive on time to classes, career fairs, and job interviews, without having to worry about cost – a common barrier for unemployed and underemployed adults.

Lunch (optional): Providing lunch daily alleviates both the financial burden on trainees and the time needed to leave the building and return, which could otherwise be spent on instruction or study.

Training Spaces
- **Classroom (without computers):** Needed for focused, distraction-free lectures, presentations, and guest speakers.
- **Computer lab (or general purpose room with computers):** The main space for technical hands-on work to be completed with equipment, and will be used for taking any exams or quizzes.
- **Breakout space:** Offers an environment for trainees to interact, eat lunch, and work on group projects together. A refrigerator, coffee machine, and microwave are worthwhile investments that make the breakout space a hub for activity and community building.

The involvement of multiple Counterparties in the implementation of a Tech Jobs Academy instance may require legal documentation outlining agreed upon roles and responsibilities. The following topics and documents could be relevant.

Legal Documents:

When working across organizational and sectoral lines – what would often be referred to as Public-Private Partnership – legal agreements are sometimes required by one of more of the Counterparties involved.

- **Non-Disclosure Agreement (NDA):** Counterparties may be required to sign an NDA to work with Microsoft on Tech Jobs Academy.

- **Memorandum of Understanding (MOU):** An MOU outlines the roles and responsibilities of all Counterparties involved.

- **Co-marketing Agreement**: The permissions, roles, and responsibilities around marketing and speaking about the program externally are outlined in this document. It also allows Counterparties to utilize each other's logos for marketing purposes.

- **Independent Contractor Agreement (ICA):** A contract to work with a Microsoft Learning Partner. If the Microsoft Learning Partner is hired through an academic institution, then that Training Counterparty might require an ICA. Each institution will likely have their own process and timeline, which might be extensive. It is critical that such an agreement be begun and completed as quickly as possible to avoid any delay to the Tech Jobs Academy program.

It is therefore important to understand the ICA process and the expected timeline well before beginning the delivery program to ensure all steps are complete in time for the program's launch. It may make sense to add the option of renewal to the contract so that this potentially time-consuming step might be avoided in future cohorts.

Note: Due to multi-party legal reviews, principals' schedules, edits to the documents, and more, finalizing an agreement can take anywhere from weeks to months. In the case of the pilot year of Tech Jobs Academy, review and signing of the necessary agreements lasted two months.

Topics to Address:

Examples of issues that should be discussed with all Counterparties, so that each understands and agrees to their respective role and responsibility, include:

- Personally Identifiable Information (PII): ensure privacy of trainees and adhere to all legal and ethical standards
- Trademarks: enact policy to guide usage (e.g. in marketing materials)
- Application goals: The application process for Tech Jobs Academy seeks to vet candidates based on how well they meet program requirements. The program is selective and applicants must demonstrate a level of competence that indicates an ability to complete the program, along with the drive and dedication to pursue a post-program career in technology.
- Application timeline
- Application language

The following materials can be used to inform the public about the availability of a Tech Jobs Academy program and to update Counterparties and trainees on important Tech Jobs Academy-related events. Editable documents can be found in the appendix (TechJobsAcademy.com/Appendix).

Marketing Materials:
- Employer Info Sheet
- Application Info Sheet
- Fact Sheet

Outreach:
In order to attract underserved and under-resourced populations, it is key to spread awareness of the program well in advance of the application process.

The following locations have been found to be especially effective:
- Public Institutions: E.g. public libraries' distribution lists
- Community Organizations: E.g. technology/STEM education non-profits distribution lists
- Educational Institutions: E.g. public and local colleges/universities
- Industry Events & Newsletters: e.g. announcements at technology meetups and on related mailing lists
- First-Party Information Sessions: E.g. events held by Tech Jobs Academy staff at public institutions and/or community organizations

Employment Counterparty:
The Counterparty responsible for job search coaching and employment plays a major role as the liaison to the employer community. This Counterparty educates employers on the Tech Jobs Academy curriculum and the

capabilities of its trainees. The long-term goal would be to have employers continually in touch with the program across a number of cohorts, so that qualified graduates would be available whenever company hiring needs arise.

The following might help achieve that goal:
- Informational & Introductory Calls
- In-Person & Virtual Information Sessions

Content:
Start with the one-liner for the program, a standard overview of the pitch, and individual bullet points for speaking about the program. This core language can be used to craft more targeted copy for the various marketing channels, such as the website, one pagers, info cards, social media copy, newsletter blurbs, and blog posts.

- Program Description: How the program is framed will be informed by the market research conducted at the very beginning of the Planning Phase, and by which applicants the program is trying to attract. Based on that information, program staff should craft a short paragraph that best describes the program and can be used across different mediums and platforms.
- Talking Points/Fact Sheet
- Digital: Email, blog, social media copy, press release(s)
- Info Card and One Pager (printed): These marketing assets are designed for print:
    - Info Card: Print on heavy 5x7 card stock; highlight important program details, particularly the website address and application deadline
    - One Pager: Expanded version of the info card containing more programmatic details; print on 8.5x11 paper

Digital Assets:

To ensure a wide reach, digital marketing and outreach is vital – with an informative website at the center of the effort.

Website:
- Content: The website techjobsacademy.com is maintained by Microsoft. Working with the GitHub repo found at GitHub.com/TechJobsAcademy, a local program team can create a new branch of the website (techjobsacademy.com/"cityname") to provide a snapshot of what the local program will involve, lay out the eligibility requirements and application process, and encourage eligible candidates to apply.
- Topics:
  o Program Overview
  o Curriculum
  o Application Process
  o Key Dates
  o How to Apply or Get Involved
- *Notes:*
  o *The pilot Tech Jobs Academy website was built by Microsoft Civic Tech Fellows. For ease of use and replication, it was designed in Sketch and built using GitHub Pages.*
  o *Programming languages used: HTML, CSS, JavaScript*
  o *Frameworks & Grid: Bourbon frontend framework and Neat grid system; jQuery*

Mailing List:
- Allow those interested in Tech Jobs Academy to sign up for periodic update emails
- A powerful way to increase the number of completed applications received and build the Tech Jobs Academy community.

Microsoft Blog:
- Microsoft maintains a public blog to celebrate successful examples of technology serving the community.
- To share Tech Jobs Academy success stories, email: info@techjobsacademy.com

Social Media:
- Sample tweets and Facebook posts (that are editable to customize details and deadlines) can be found in the appendix

Other Digital Channels:
- Unique URLs
- Event Listings

Tech Jobs Academy is committed to providing capable and dedicated trainees with the skills they need to secure a 21st century tech career. To this end, following are guidelines on how to structure the program's application and admissions process.

Application Criteria:
- Local resident (in relation to the Funding Counterparty)
- Below-average individual and household income
- Cap on Formal Education (e.g. less than a four-year degree)

Note: the above criteria can be adjusted based on location. For example, the income level can be adjusted based on the cost of living in the community in which the program is being administered. The residency requirement can similarly be made more or less specific. During the pilot, a requirement was that each trainee be a New York City resident.

Application Language:
Words matter. In order to fulfill its potential as a driver of diversity in technical roles and a provider of opportunity to communities that are often underserved, it is critical that Tech Jobs Academy and the skills associated with it be described in inclusive terms.

Best practices:
- Conduct a third-party language review for unconscious bias
- Avoid putting emphasis on self-rated skills, as a gender gap has been observed in such self-assessments
- Avoid using proxies to estimate skill or ability
- Give applicants opportunity to learn new skills, as opposed to simply judging them on the skills or job history they already have

Application Process:
The application process for Tech Jobs Academy involves four stages.

1. **Online Application:** This form is designed to screen for eligibility, get a sense of each applicant's writing and problem solving skills, and understand the applicant's career goals and his or her ability to commit to such an intensive program.

2. **Test of Adult Basic Education (TABE) Math and Reading Exams:** These commonly used placement tests ensure that applicants have sufficient math and reading abilities to excel in the program.
   a. As a benchmark, 50% of applicants in the pilot year passed the TABE exams

3. **Microsoft Technology Assessment (MTA) in Networking Fundamentals:** This technical exam assesses:
   a. Applicants' technical foundation in relevant material or ability to quickly learn dense, technical material
   b. Applicants' ability to study for and pass an exam
   c. As a benchmark, 67% of applicants in the pilot year passed the MTA exam

4. **Group Interview:** This exercise includes a group problem-solving activity, and should be conducted with 4-6 applicants.
   a. Helps demonstrate how each applicant:
      i. Deals with ambiguity
      ii. Works as a member of a team
      iii. Solves a problem
      iv. Formulates and tests hypotheses
   b. The interview assessment team is comprised of:
      i. Program Manager
      ii. Case Manager/Social Worker
      iii. Technical Staff Member (Instructor, TA, or similar.)

Cohort Selection:

Once a group of candidates has successfully completed the testing and interviews, the hardest part can be deciding who will be accepted into the program. *Three issues that are likely to be front of mind for program staff are: 1) Confidence in a candidate's aptitude and ability to successfully complete the curriculum, 2) Motivation and drive to start a tech career, and 3) Need – how lifechanging can Tech Jobs Academy be for a particular person.*

- After the group interview, applicants should be stack ranked, which will help determine the order of the waitlist as well.
- Selections should be made by multiple staff members (with input from each Counterparty) through double-blind assessment
- Conflicts of interest should be made known (e.g. a staff member involved in the selection process recommended that a specific candidate apply)
- Accept: 25 applicants; Waitlist: 25 applicants
- Factors to consider in the selection process:
    - o Need: How important is this program to the person?
    - o Motivation for applying: Do an applicant's career/personal goals align with the intended goals of the program?
    - o Availability: Can the applicant fully commit to the program?
    - o Teamwork: Did the applicant demonstrate an ability to work with and support others during the group interview?
    - o Aptitude: Is it demonstrated by TABE exams or work experience?
- Communicate decisions: Once selections are made, send emails to all applicants – including accepted, waitlisted, and rejected candidates – to inform them of their status and to suggest alternative resources for those who have not been admitted

It is necessary to collect and manage data, and to do so responsibly. Keeping track of each trainee's skillsets and job prospects before and after the program allows Tech Jobs Academy staff to understand which interventions are working and how the program might be improved in the future. Trainees rely on data-driven feedback to understand their own progress throughout the course. The protection of personally identifiable information (PII) throughout every phase of Tech Jobs Academy is critically important.

The following are examples of some types of data that might be collected and managed, during each of the three phases: Planning, Program, and Placement.

Planning Phase:
- Demographics of applicants and accepted trainees
- Previous employment and income of applicants
- Performance on application exams for all applicants
- Request additional information from waitlisted candidates for comparative analysis against admitted trainees

Program Phase:
- Attendance
- Performance on Quizzes & Exams
- Homework Submissions
- Group Projects
- Certification Exam Scores
- Suggested tool(s):
  - Large online education platforms offer Learning Management Systems. E.g. EdX manages curriculum and grades.
  - Share Point: helps manage documents, slides, etc.

Placement Phase:
- Job-Seeking Activities
- Additional Certifications
- Continuing Education
- Suggested tool(s):
  - Shared Excel Spreadsheets in Microsoft OneDrive: an easy way to collaboratively manage in real-time the number of job applications submitted or other relevant data

Follow-up to ensure data is not missing:

- After the program, graduates may be busy acclimating to new jobs, moving, or addressing a host of personal issues. This can make it challenging for program staff to stay up-to-date on graduates' post-program performance.
- Set expectations from the beginning of the program that staying in touch and updating Tech Jobs Academy staff on post-program performance and placement is part of the commitment each trainee is making.
- Hosting regularly scheduled community-building events during the Placement Phase is an effective way to stay in touch with graduates.

Timely classroom setup will allow instructors and trainees to hit the ground running in the intensive Program Phase.

- Wi-Fi & Ethernet: Reliable, high-speed Internet connection
- Laptops and/or workstations: physical equipment that can handle the latest virtualization software
- Server(s): Physical servers to demonstrate hands-on learning and skills development, if relevant to the Learning Path

Note: some trainees may not have access to a computer at home that can meet minimum software requirements

Instructional Space:
Creating an optimal learning environment for trainees.

Classroom and Training Workspace (without computers): This space is essential for focused lectures and for guest speakers.
- Equipment needed:
    - Moveable Desks
    - Moveable Chairs
    - Projector
- Purpose:
    - One-on-one meetings
    - Office hours
    - Professional development

Computer Lab (or general-purpose room containing computers): This is the primary space for hands-on technical work to be completed with computer equipment. Exams and quizzes are taken here.

Lounge/Breakout Space: Given the importance of building community, this space offers an environment for trainees to interact, eat lunch , and work on group projects. This space is also used to develop public speaking and presentation skills.
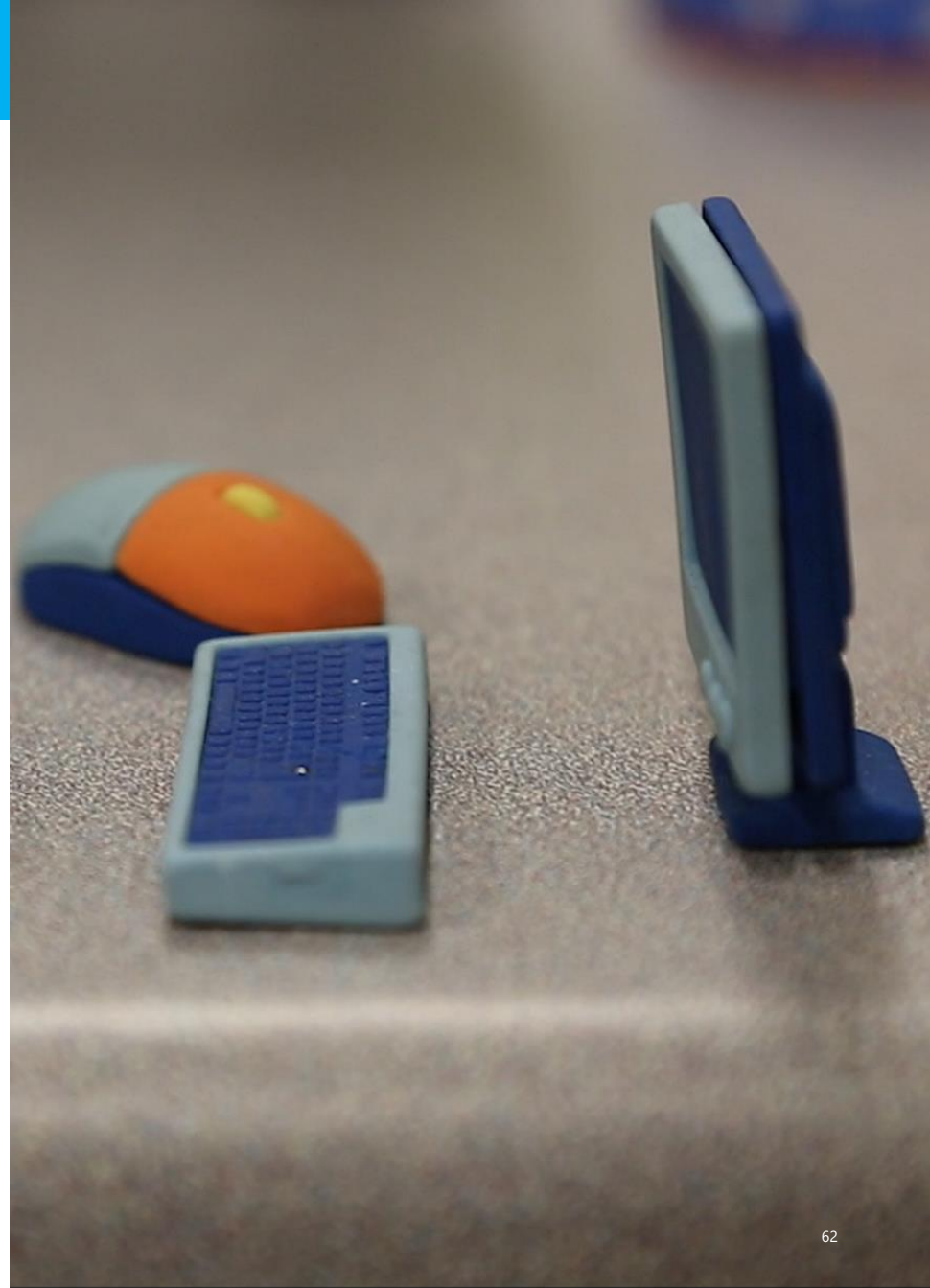
The onboarding process establishes high expectations and a culture of professionalism in the classroom.

Introductory Professional Development Skills:
Trainees displaying strong interpersonal skills or the ability to quickly learn them found job search success more quickly than those who did not.

Professional Development Skills include:
- Email etiquette
- Body language
- Basic foundations of appropriate networking/professional behavior
- Downloading and practicing with commonly used tools such as Skype, Outlook, calendar management software, etc.

Cohort Communication:
Communication is critical within the cohort, especially in early stages when trainees are getting settled in and forming habits.

- **SharePoint:** Trainees should receive an invitation to the Trainee SharePoint as well as the Cohort SharePoint, which includes staff.

- **Microsoft Teams:** Each cohort should have a Microsoft Teams channel setup for trainees to converse, share information, and post updates. It's also a fast and easy way for instructors and staff to communicate quickly and announce updates. Teams is available for web, mobile, and as a standalone app. Trainees in pilot cohorts found chatroom functionality to be an important part of their program experience, particularly as they build peer-to-peer relationships with one another.

- **Outlook email addresses:** Before joining the Trainee SharePoint, trainees should sign up for an Outlook email address, which can be done by the trainees immediately prior to the Program Phase. To avoid confusion, Outlook email addresses should be used as each trainee's primary manner of communicating. Trainees should make sure they have access to their Outlook account in the same places they would normally access email (phone, tablet, laptop, etc.) to ensure smooth communication with their peers and program staff.

- **Communication Procedures:**
  - **For trainees:** Trainees should have contact information and a clear understanding of which staff members to reach out to in various situations. For each situation, trainees should at the very least send an email, and are welcome to use additional forms of communication such as direct messaging on Teams, text, phone call, etc.:
    - Attendance: Case Manager, Program Manager
    - Late homework submissions: Program Manager, instructor who assigned the homework
    - Issues/complaints/feedback on the program: Program Manager
    - Issues/complaints/feedback on a program component (Microsoft, math, career & interpersonal): Program Manager, instructor of the component
    - Life update, announcement, concern, problem: Program Manager, Case Manager
    - Other: Program Manager
  - **For staff:** Staff should be clear on how to communicate both with each other and with trainees.
    - Ideally, communication with other staff members

should be done via email, with the use of text, phone call, or Teams messages in urgent/time-sensitive situations.

- Any announcements, changes to the curriculum, changes to the schedule, etc. need to be communicated with all staff prior to being communicated with trainees. This should be done via email, with the use of messages on Teams, text, phone as additional forms of communication.
- Any changes to the program or instructional component that will affect the trainees' program experience and/or learning should not be communicated with the trainees without first going through the Program Manager. It is up to the instructors and staff members' discretion, but if the specific scenario calls for a need to communicate directly with trainees without first going through the Program Manager, the Program Manager should be cc'd on that communication, so that they are kept in the loop.

- **Absent Instructor Protocol:**
  - o Technical Skills Instructor should notify both the Program Manager and the backup instructor.
  - o Backup instructor must stay abreast of program and student progress to be able to come in and pick things up from where they were left. This shouldn't require more than an email update once per month.

The backup instructor should be ready to fill in for the primary Technical Skills Instructor seamlessly, whether that role is giving a lecture, providing feedback on group projects, or administering a quiz.

Pre-Work:

- **Industry knowledge:** Links, videos, articles that describe the IT industry and certain relevant roles can be helpful for trainees. Any resources that give people a clearer picture of what a day in the life on the job would be like might help trainees' develop appropriate expectations as they undertake the Program Phase.

- **Technical knowledge:** Links, videos, articles that cover important foundational technical knowledge before starting the program can be crucial in providing trainees with a solid technical baseline as they begin the Learning Path. Such materials also introduce trainees to base concepts and keywords that will be used regularly throughout the program. This familiarity will make it easier for trainees to dive into technical concepts and might decrease the disparity between the technical knowledge of trainees with and without prior IT experience.

- **Format:** Pre-work might be a collection of links, which should add up to 30 hours of study, at most. Pre-work assignment should be broken down into three levels of attainment for trainees: minimum required review (10 hours total), good review (20 hours total), stretch goals (30 hours total).

Eligibility Verification:

- If accessing public funding, there may be specific requirements to verify trainee eligibility prior to the commencement of the Program Phase. One day in the week prior to the Program Phase might be set aside for this purpose.

Student IDs:
Depending on the rules at Tech Jobs Academy venues, trainees may require valid government-issued identification cards or student IDs to access the learning environment.

Suggestion: Arrange for student ID photos to be taken during Eligibility Verification Day to avoid multiple onsite trips by trainees.

Curriculum Expectations:
Guidelines and requirements should be agreed upon in advance by both instructors and trainees.

- Syllabus
- Rubrics – clear rubric provided
- Feedback – focus on providing actionable feedback over monitoring of academic performance
- Organization – posted on SharePoint

Attendance Expectations:
Regular attendance is foundational for the success of individual trainees and the program as a whole.

- Establish rigorous expectations from the very first day, with trainees agreeing to and signing an attendance pledge
- Important note: public funding might require diligent record-keeping showing a minimum level of attendance
- Trainees who are late or absent should be contacted within 24 hours to remind them of the expectation of regular attendance

Post-Program Expectations:
Two-way communication post-Program Phase is critical for trainee placement and data integrity, but can be difficult once trainees are no longer present onsite.

- At the start, each trainee signs an agreement to diligently search for a job post-program and to keep program staff updated
- At the conclusion of the program, trainees are reminded of the commitment they've made and the importance of reliable data
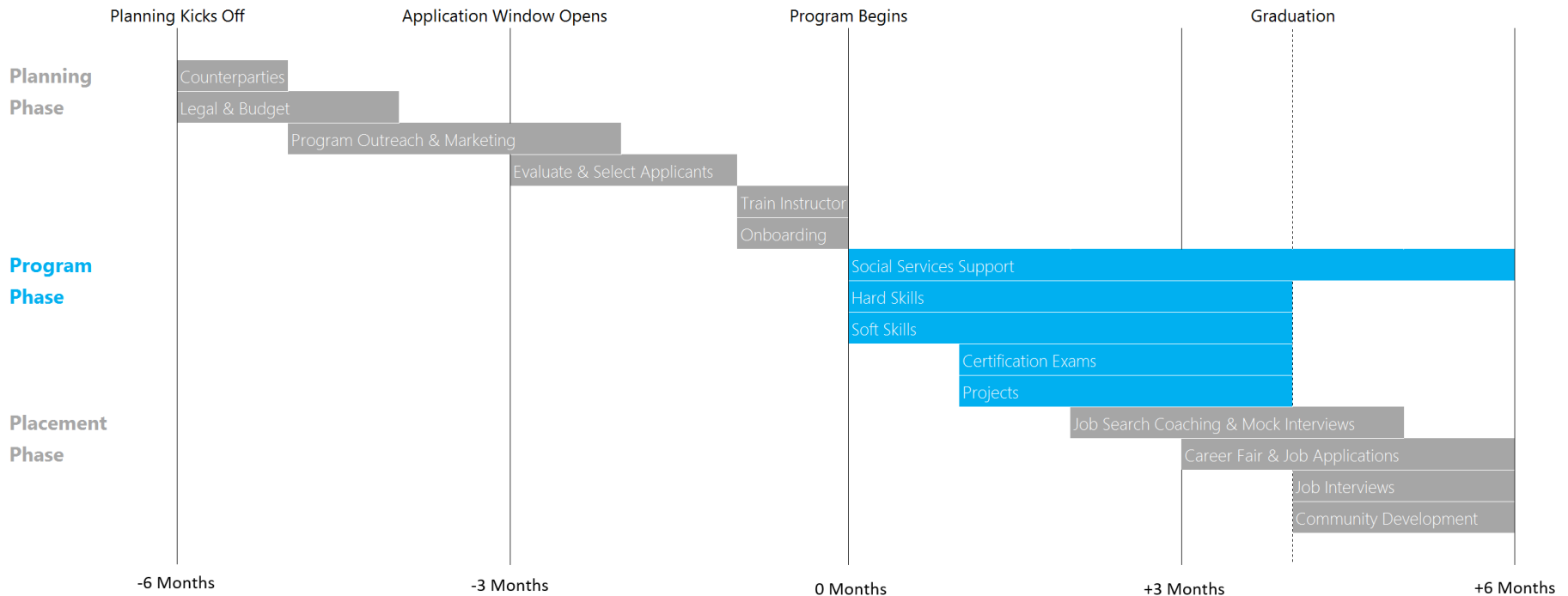
Chapter 4:
Program Phase

Chapter 4: Program Phase

The Program Phase is what many people would think of as Tech Jobs Academy, featuring trainees in class together, doing projects, and taking certification exams.

In reality, the Program Phase is only one part of

Implementing Tech Jobs Academy, in conjunction with the Planning and Placement Phases. In the Program Phase, trainees gain skills and certifications, not to mention a community of support prior to entering the job market.

	Planning Kicks Off	Application Window Opens	Program Begins	Graduation

Planning Phase
- Counterparties
- Legal & Budget
- Program Outreach & Marketing
- Evaluate & Select Applicants
- Train Instructor
- Onboarding

Program Phase
- Social Services Support
- Hard Skills
- Soft Skills
- Certification Exams
- Projects

Placement Phase
- Job Search Coaching & Mock Interviews
- Career Fair & Job Applications
- Job Interviews
- Community Development

-6 Months   -3 Months   0 Months   +3 Months   +6 Months

4.1: Instructional Delivery
Program Phase

The Program Phase can be deconstructed to show several standard underlying academic components that introduce new technical concepts and culminate in testing. Demonstration of technical knowledge through group projects reinforces the lessons learned.

- **Lectures:** 1-2 hours of instruction including PowerPoint slides, whiteboard exercises, and group activities

- **Homework:** Daily assignments to practice acquired knowledge and skills

- **PowerShell Exercises:** Quick morning quizzes to ensure comfort and expertise with scripting in PowerShell, a task automation framework

- **Quizzes & Exams:** Weekly and bi-weekly exams to demonstrate knowledge through certification

- **Group Projects:** Lasting a week or more, team projects involve case studies, technical problem solving, and presentation skills practice

Design and Implement
Server Infrastructure

Build and Integrate
Azure Infrastructure

Deep Dive Into
PowerShell 3.0

Learn Windows
Server Fundamentals

Prepare and Review
Resumes and Cover Letters

Improve
Interview Skills

4.6: Sample Weekly Schedules
Program Phase

Standard Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00am	PowerShell Exercises	Quiz	PowerShell Exercises	Quiz	PowerShell Exercises
10:00am	Lecture	Lecture	Lecture	Lecture	Lab Work
11:00am	Lecture	Lecture	Lecture	Lecture	Lab Work
12:00pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:00pm	Professional Development	Independent Work	Professional Development	Lab Lecture	Independent Work
2:00pm	Professional Development	Independent Work	Professional Development	Lab Lecture	Independent Work
3:00pm	Professional Development	Independent Work	Professional Development	Lab Lecture	Lab Due
4:00pm	Professional Development	PD Homework Due	Professional Development	Lab Lecture	Decompression

Schedule with Group Project

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00am	PowerShell Exercises	Quiz	PowerShell Exercises	Quiz	PowerShell Exercises
10:00am	Group Project	Group Project	Lecture	Lecture	Group Project
11:00am	Group Project	Group Project	Lecture	Lecture	Group Project
12:00pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:00pm	Professional Development	Independent Work	Professional Development	Group Project Work	Group Project Presentations
2:00pm	Professional Development	Independent Work	Professional Development	Group Project Work	Group Project Presentations
3:00pm	Professional Development	Independent Work	Professional Development	Group Presentation Practice	Group Project Presentations
4:00pm	Professional Development	PD Homework Due	Professional Development	Group Presentation Practice	Decompression

Schedule with Certification Exam

Time	Monday	Tuesday	Wednesday	Thursday	Friday
9:00am	PowerShell Exercises	Quiz	PowerShell Exercises	Quiz	PowerShell Exercises
10:00am	Exam Prep	MeasureUp	MeasureUp Debrief	Exam	Exam Debrief
11:00am	Exam Prep	MeasureUp	MeasureUp Debrief	Exam	Exam Debrief
12:00pm	Lunch	Lunch	Lunch	Lunch	Lunch
1:00pm	Professional Development	Independent Work	Professional Development	Exam	Independent Work
2:00pm	Professional Development	Independent Work	Professional Development	Exam	Independent Work
3:00pm	Professional Development	Independent Work	Professional Development	Exam	Independent Work
4:00pm	Professional Development	PD Homework Due	Professional Development	Exam	Decompression

What makes Tech Jobs Academy unique is the data-driven market research into the local skills gap combined with a tailored curriculum that trains people to fulfill precisely those needs. At its core, Tech Jobs Academy is a framework that can be populated with varying educational content based on the specific skill set in demand in a given metropolitan area at a given time. Following is how any Tech Jobs Academy curriculum could be structured, with Cloud & Server Administration – the skill set taught during the pilot year in New York – shown as the example.

Microsoft Technologies:

Course Objectives: The Microsoft curriculum delivers the skills that enable a graduate to do an in-demand tech job. E.g. For the Cloud & Server Administration track, trainees review and master Windows server fundamentals, design and implement server infrastructure, learn PowerShell 3.0, and build and integrate Azure infrastructure. To gain these skills, trainees complete a set of courses, gain certification through exams, and develop comprehensive group projects.

Class Resources: Trainees leverage official Microsoft courseware – including online labs, technical textbooks, lectures, quizzes, and hands-on group projects – to learn the material, apply the knowledge, and gain the technical skills needed for their new careers.

Course 1: BASIC
> **e.g. Course 70-410:** Installing and Configuring Windows Server® 2012

> This course focuses on the initial implementation and configuration of core services, such as Networking, Storage, Active Directory Domain Services (AD DS), Group Policy, File and Print Services, and Hyper-V.

Course 2: MODERATE
> **e.g. Course 70-411:** Administering Windows Server® 2012

> This course focuses on the administration tasks necessary to maintain a Windows Server 2012 infrastructure such as configuring and troubleshooting name resolution, user and group management with Active Directory Domain Services (AD DS) and Group Policy, implementing Remote Access solutions such as DirectAccess, VPNs and Web Application Proxy, implementing Network Policies and Network Access Protection, Data Security, deployment and maintenance of server images, as well as updates.

Course 3: ADVANCED
> **e.g. Course 70-412:** Configuring Advanced Windows Server® 2012 Services

> This course focuses on advanced configuration of services necessary to deploy, manage and maintain a Windows Server 2012 infrastructure, such as advanced networking services, Active Directory Domain Services (AD DS), Active Directory Rights Management Services (AD RMS), Active Directory Federation Services (AD FS), Network Load Balancing, Failover Clustering, business continuity and disaster recovery services as well as access and information provisioning and protection technologies such as Dynamic Access Control (DAC), and Web Application Proxy integration with AD FS and Workplace Join.

Course 4: MODERATE
> **e.g. Course 70-246:** Monitoring and Operating a Private Cloud

> This course describes how to monitor and operate a cloud with Microsoft® System Center 2012 R2. This course focuses

on how to manage and administer a cloud environment, and it describes how you can monitor key infrastructure elements and applications that run within a cloud. This course equips trainees with the skills they require to configure and deploy a cloud using Microsoft System Center 2012 R2

Course 5: ADVANCED
e.g. Course 70-247: Configuring and Deploying a Private Cloud

This course equips trainees with the skills they require to configure and deploy a cloud using Microsoft System Center 2012 R2.

Course 6: ADVANCED (if necessary)
e.g. Course 70-533: Implementing Microsoft Azure Infrastructure Solutions

This course is aimed at experienced IT Professionals who currently administer their on-premises infrastructure. The course introduces the trainees to Microsoft Azure and then teaches them how to manage their infrastructure in Azure rather than on-premises.

Math:

Course Objectives: In order to complete the official Microsoft coursework and to advance in the industry, trainees need a base proficiency in mathematical concepts and skills. To get them there, this course focuses on Algebra, Logic, Boolean Algebra, and the Binary, Octal, and Hexadecimal Number Systems. In addition to learning math, trainees develop analytical and problem-solving skills and practice presenting to other trainees independent projects that display an understanding of these concepts.

Class Resources: Logic Demystified, by Anthony Boutelle and Stan Gibilisco ("Logic"), McGraw Hill; Statistics Demystified, by Stan Gibilisco ("Stats"), McGraw Hill, 2d ed.; Handout 1: Exponents ("H/O 1"); Handout 2: Functions ("H/O 2"). This curriculum is delivered in a combination of lectures, in-class assignments, and quizzes.

Topics:
• Decimal System/Exponents
• Algebra: Functions/Variable Substitution
• Formal Logic Overview
• Boolean Algebra
• Sets/Venn Diagrams
• Binary/Octal/Hexadecimal System

Additional Curriculum:
A working understanding of additional, non-Microsoft technologies, terms, and methodologies can be advantageous. *Graduates will be working in technical roles and it is worth spending some time developing a basic understanding of competing and complementary tech.*

For example, if delivering Cloud & Server Administration skills to trainees, the following are important additional topics:

• **Tech Ecosystem:** how technology teams work, where and how Cloud & Server Administration fits into the overall picture
    o Agile/SCRUM: software development methodologies
    o Issue Management: understanding how to get troubleshooting information from users, and how ticketing and issue tracking software works

• **Unix Fundamentals**
    o File Systems

- o Shells and Useful Shell Tools
- o Package Management
- o The Boot Process
- o Crontab

- **Networking**
  - o The RFC Documents
  - o OSI 7-Layer Model (OSI Reference Model)
  - o TCP/IP (ARPA) 4-Layer Model; TCP vs. UDP
  - o IP Addressing
  - o Subnetting, netmasks, and CIDR
  - o Classful Addressing
  - o Private Address Space (RFC 1918)
  - o Static Routing
  - o NAT
  - o Networking Cable

- **Troubleshooting**
  - o Methodologies
  - o Working effectively during a crisis

- **Hardware**
  - o Hardware Types
  - o Basic Server Architecture
  - o Disk Management
  - o Performance/Redundancy
  - o Troubleshooting

- **Datacenters**
  - o Power Budgets and Cooling Budgets
  - o Machine and Cable Labeling
  - o Traditional Naming Conventions

Suggested Additional Curriculum: Open Source documentation at OpsSchool.com
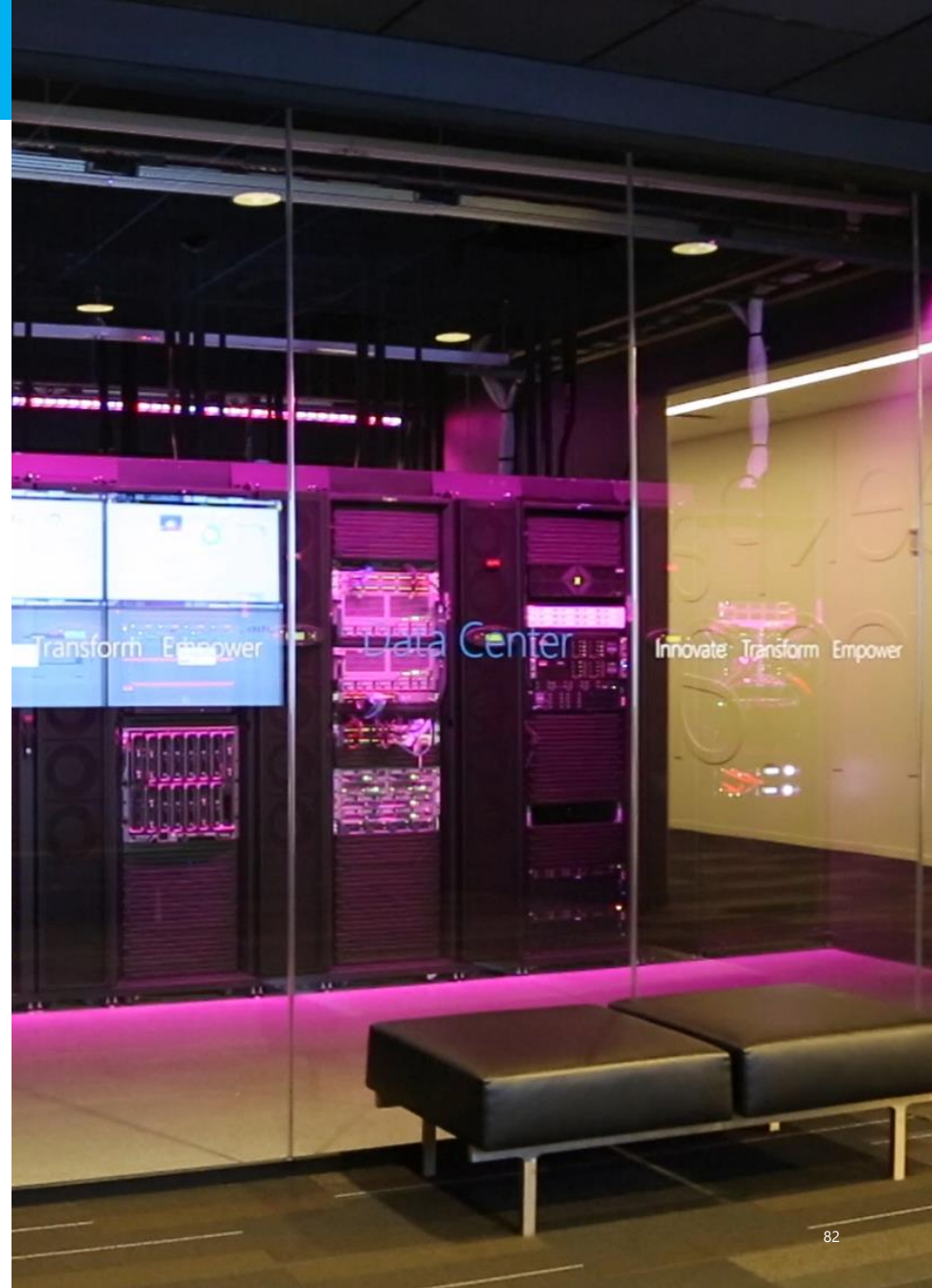
Microsoft Certifications provide globally recognized technology credentials for rewarding careers, validating expertise in Microsoft technology. *A core component of the Program Phase of Tech Jobs Academy, Microsoft Certifications provide potential employers with assurance that graduates possess job-relevant skills.*

For graduates with neither prior technical experience nor a traditional undergraduate degree in a technical field, passing certification exams can stand in for prior work experience. Once a graduate of Tech Jobs Academy is successfully placed into a job, certifications can help obtain higher pay and accelerate the advancement process.

Exam path:
- One Microsoft Technology Assessment exam is taken as part of the application process prior to Tech Jobs Academy
- Five to six Microsoft certification exams in the relevant domains are included in the Program Phase of Tech Jobs Academy

For a Cloud & Server Administration focused instance of Tech Jobs Academy, the exam path includes:
- 98-366: Networking Fundamentals *(during the application process)*
- 70-410: Installing and Configuring Windows Server 2012
- 70-411: Administering Windows Server 2012
- 70-412: Configuring Advanced Windows Server 2012 Services
- 70-246: Monitoring and Operating a Private Cloud
- 70-247: Configuring and Deploying a Private Cloud
- 70-533: Implementing Microsoft Azure Infrastructure Solutions

4.4: Soft Skills Curriculum
Program Phase

Hard skills alone are not enough to be successful in most technical roles today. *It's critical that Tech Jobs Academy graduates also be equipped with soft skills – the ability to communicate, to think creatively, and to solve problems as members of a team – in order to stand out in the job market and thrive in the workplace.*

Training materials: Relevant training resources can be found in the appendix, at TechJobsAcademy.com/Appendix. The curriculum is delivered using a combination of lectures, assignments, and workshops. Representatives from industry are invited to participate as guest speakers.

Topics:

- Communicating Technical Knowledge
  - Verbal communication, through 1-on-1 and group speaking engagements
  - Written communication, including how to be clear in an email and how to deal with ambiguity when receiving written communications from others
  - Technical writing (e.g. blog posts)

- Career Development Workshops
  - LinkedIn
    - How to present yourself to industry and potential employers
    - Updating your profile as you gain new skills
    - Taking advantage of social networks to surface opportunities
  - Building a resume
  - Resume, cover letter, and portfolio review
  - Negotiating and offer letters
  - Storytelling: elevator pitch and in-person networking

- Time Management
  - Best practices for maintaining a calendar

- Team Building & Navigating Team Projects
  - Technical speaking and presentations
  - Dealing with disagreements

- Understanding the Industry
  - Guest speakers who hold tech roles in organizations large and small
    - Panel event(s)
    - In-class guest speaker(s)
  - Field trips
    - Career fair
    - Tech conference
  - Tech tools and systems/career paths
  - Mock technical interviews

- Ongoing
  - LinkedIn updates
  - Technical writing (e.g. blog posts)
  - Public speaking
  - Interview prep (verbal and non-verbal communication skills)
  - Researching and applying to jobs

4.5: Team Projects

Group projects provide hands-on technical work practice, test knowledge accumulation, and enable trainees to develop critical problem-solving skills. Projects assume a basic understanding of a Course's technical curriculum (gained through lecture, homework, and quizzes), allowing trainees to focus project time on higher level problem-solving and developing teamwork. Through group projects, trainees take on roles that they might eventually hold in a work environment, gaining valuable hands-on experience.

Team Pairings:
Groups are initially created somewhat randomly, to encourage trainees to work with others they haven't yet gotten to know. Later in the program, the instructor should create groups to evenly distribute trainees based on specific technical acumen. Research shows that diverse teams perform better. When preparing trainees for the IT industry, exposing them to people whose past experiences are different can be a learning experience all its own. That's why it is important to construct teams that are diverse in many ways: gender, race/ethnicity, age, technical know-how, and past experience.

Individual Team Roles:
Each person should be able to work together effectively, present the team's work and explain the choices they made and why.

Rubric:
Grading a group project can be difficult, but this is an important opportunity for the instructor to assess the progress each trainee is making on both technical and career development fronts. Group projects can highlight which trainees need extra homework or one-on-one tutoring during office hours.

Chapter 5:
Placement Phase

Planning Phase

- Counterparties
- Legal & Budget
- Program Outreach & Marketing
- Evaluate & Select Applicants
- Train Instructor
- Onboarding

Program Phase

- Social Services Support
- Hard Skills
- Soft Skills
- Certification Exams
- Projects

Placement Phase

- Job Search Coaching & Mock Interviews
- Career Fair & Job Applications
- Job Interviews
- Community Development

Planning Kicks Off — Application Window Opens — Program Begins — Graduation

-6 Months — -3 Months — 0 Months — +3 Months — +6 Months

The job search phase of Tech Jobs Academy is where it all comes together. *Beginning in the Planning Phase, Tech Jobs Academy staff should be in close communication with the Employment Counterparty. Ultimately, however, no one has more impact on the outcome than the graduate himself.*

Job Search Expectations:

The goal of Tech Jobs Academy is to help graduates earn meaningful employment in technical roles, fundamentally changing career trajectories and increasing earning power in both the short and long runs.

- **Job Search Pledge**: Trainees must commit at the start of the program to try to find a job immediately after they complete the Program Phase. The pledge includes a commitment to engage with resources made available through Tech Jobs Academy as well as conducting ones own efforts.

- **Soft Skills**: Encourage trainees to consider the integration of soft skills in the Tech Jobs Academy curriculum as their competitive edge when going into networking events and interviews.

- **Follow Up**: Ensure that program staff stays in touch with graduates to track performance and source potential opportunities that could be a good fit for other Tech Jobs Academy alumni.

- **Communicate Early and Often:** It is important that trainees promptly notify staff of any hurdles or challenges as they arise.

- **Pay It Forward:** Tech Jobs Academy offers trainees an amazing opportunity to improve their circumstances. Once trainees successfully complete the program and secure employment, these graduates can act as mentors to their peers and future graduates of the program.

Provide Structured Support:

Beyond ensuring that Tech Jobs Academy delivers the requisite skillset to trainees, staff can actively assist through structured events and one-on-one career development sessions.

- **One-on-Ones:** The Employment Counterparty should arrange weekly calls between graduates and their dedicated job search coach to review progress and ensure that they are "playing the numbers game" by applying to a large number of opportunities.

- **Study Groups:** While every trainee will have achieved a baseline set of skills and certifications via the Tech Jobs Academy curriculum, peer-to-peer support can increase their employment opportunities. Program staff should foster the ambitions that some groups of trainees might have to gain additional certifications, including non-Microsoft ones.

- **Coffee Fridays:** This casual, weekly, check-in event will help program staff stay up-to-date on the progress trainees have made. The convening also fosters the Tech Jobs Academy network, allowing graduates to share their struggles and successes with the group in an informal and supportive setting.

- **Career Events:** Host events, at least every other week, in which Tech Jobs Academy staff invite potential employers for career-fair style information sessions. Make trainees aware of third-party networking and job fair events in the area, encouraging them to attend.

- **Social Worker Support:** Some graduates might have significant challenges that make full-time focus on the job search more difficult. The social worker on staff should continue work begun in the Program Phase to assist trainees. It is important for staff to recognize that the specific challenges a trainee faces are likely to change when transitioning from a structured classroom environment to the less-organized job search experience.

5.2: Mock Interviews

Technical Interviewing:
Many trainees do not have previous experience in technical interviewing, which makes building this key skill a priority.

Note: during the pilot program, trainees from non-traditional, and/or non-IT backgrounds required the most help with their technical interview skills. Despite high performance in earning certifications or completing projects, lower proficiency in communication and problem-solving skills led to slower progress on the interview circuit.

- **Practice:** As with any skill, practicing the expected components of a technical interview will help trainees perform well in this aspect of the job search. It is important to remind trainees that completing the Program Phase is a mile marker and not an endpoint. In addition to completing the Tech Jobs Academy curriculum, interview preparation is essential if they hope to reach their potential.

- **Be Adaptive**: Through simple research, trainees should have a basic understanding of what to expect in the technical interview. Still, they will likely encounter a question for which they did not specifically prepare. Encourage trainees to understand the core skill being tested in the technical interview and focus on demonstrating "big picture" thinking when needed. When trainees practice answering expected questions, throw in a curveball every now and then.

- **Talk It Out:** Even if a trainees makes a mistake in approaching a technical question in the interview, interviewers may be forgiving if they are able to verbalize a smart approach and way of thinking about the presented question. As such, trainees should practice walking their interviewer through the steps they are taking to problem-solve, articulating why each step is being done. This will also demonstrate strong social and communication skills.

Non-Technical Interviewing:
Soft skills lift a technically qualified candidate to the next level in their interview process. *Remind trainees not to short-change the personal storytelling aspects of interview prep.*

- **Attitude:** It may sound trivial, but the first step of any successful interview is having a positive, upbeat attitude and showing self-confidence. This can and should be practiced during mock interviews.

- **Research:** Encourage trainees to do 30 minutes of research on each company from which they receive an interview. There is nothing more embarrassing than not knowing basic details about the company's core business or the role for which the trainee is interviewing. Failure to demonstrate preparedness can be an opportunity-killer.

- **Ask Questions:** Trainees should come prepared to ask one or two pre-determined questions to their interviewer. Ideally, applicants will think of an insightful question during the actual interview, but it is always helpful to have back-ups prepared. Asking the interviewer questions demonstrates interest and thoughtfulness about the role.

- **Good Etiquette:** Until a job offer is made, the interview is not over. Trainees should always send a follow-up "thank you" email to their interviewer. This demonstrates continued interest in the role and conveys a level of professionalism that employers will appreciate. Aside from the follow-up email, graduates should be self-aware of how they are engaging with other interviewees and office personal on the way into and out of an interview. It's good to assume that potential employers are always noting their behavior.

Community has proven to be one of the most valuable aspects of Tech Jobs Academy and a strong indicator of trainee success in terms of ongoing learning and growth.

- **Conferences & Industry Events:** Tech Jobs Academy staff should schedule a monthly community building or job search-related field trip during the Placement Phase. These group events help strengthen the Tech Jobs Academy network for trainees, allowing them to support one another even after the Program Phase has ended. Additionally, visits to tech company offices or exciting business environments helps motivate trainees to continue putting in the time and effort needed to help them attain their career goals.

- **Communication:** Establish routine check-ins and build feedback mechanisms into the program so that any issues that arise – during the Program or Placement Phase – can be quickly corrected.

- **Live Group Chat:** Encourage trainees to develop an online community (e.g. Microsoft Teams) where regularly occurring posts on relevant events, job opportunities, and social outings provide the basis for the further community bonding.

- **Newsletter:** Send a weekly round-up of important agenda items and optional events to trainees. Consider sending a less frequent email update to non-trainees or others who have expressed interest in or support for the Tech Jobs Academy program.

- **Lunch Talks:** When possible, host weekly or biweekly lunch talks with industry professionals and past Tech Jobs Academy graduates.

Track Progress From Start to Finish (and Beyond):

Tracking progress before, during, and after a trainee enrolls in Tech Jobs Academy allows staff to better understand the strengths and weaknesses of the program. Such data help staff intervene to assist trainees during the Program Phase, graduates during the Placement Phase, or even plan improvements for the benefit of trainees in a future iteration of Tech Jobs Academy.

- **Applicant Demographics:** be sure to collect and store applications appropriately for the duration of the Tech Jobs Academy program. Applications provide a snapshot-in-time record of the trainees' incoming status: demographics, income, work history, career goals, and more. It may be important to be able to reflect on this information after an instance of Tech Jobs Academy has concluded in order to accurately evaluate program success.

- **Performance During Program:** maintain records of trainee quiz and certification exams scores. These data points will allow you to assess which elements of Program Phase success most closely correlate with Placement Phase success.

- **Job Search and Placements:** employment outcomes are the most important metrics for program staff to follow. Note the sorts of jobs applicants apply to, how many different applications they submit, and their success rate. Maintaining information on job placement will help generate leads for those still looking for post-program employment. Further, understanding post-program performance will be essential in evaluating program success and determining which aspects to continue or change in future cohorts.

What to Monitor:

Documents and Details:
- Offer Letters
- Job Title
- Start Date
- Income/Hourly Wage
- Paystubs

Possible Statuses:
- Employed
  - Full-time (FT) Technical
  - Full-time (FT) Non-Technical
  - Part-time (PT) Technical
  - Part-Time (PT) Non-Technical
- Unemployed
- Full-time Student
- Not currently looking

Note: The appropriate handling of any Personally Identifiable Information (PII) should be of paramount concern. PII that is not needed to evaluate program success or support graduates gaining employment should not be stored.

Be Reflective:

After implementing accurate data tracking, data analysis allows for program improvements not only based on application criteria but on insights captured throughout the Planning, Program, and Placement Phases.

Questions to consider:
- Did the applications allow administrators to assemble a diverse cohort that maximizes opportunity to participants?
- What were the gender, racial, and ethnic breakdowns? Was this reflective of successful outreach and application solicitations?
- Which trainees secured the most promising post-program employment opportunities? What explains these results? Did they apply to more jobs? Did they invest more time in mock interviews? Or did they have more technical know-how coming in?
- Did skills delivered based on stated industry need match the roles trainees accepted positions for post-program?

Specific metrics to calculate:
- Average cohort-wide salary increase, post-program
- Cohort racial, gender, and educational demographics
- Trainee in-program performance (quizzes, grades, etc.) relative to post-program employment success

What to Know:

- Application Information
    - Demographic Information
    - Level of job-seeking engagement

- Knowledge & Skills
    - Technical Acumen & Skills
        - Pre-Program
        - Post Program
    - Certifications
        - Pre-Program
        - Post Program
    - Other Training Programs & Prior Education

- Employment
    - Titles & Salaries of Positions applying/applied to
    - Employment Counterpart Hiring Record & Needs
    - Industry Salary Report

Chapter 6: Outcomes & Data Visualizations

6.1: Outcomes & Learnings
Outcomes & Data Visualizations

The pilot year of Tech Jobs Academy showed that there is an appetite for innovative skills development programs from city governments, people in need of work, and employers in need of talent. These are some of the lessons learned.

Funding is available:
- Local and regional governments spend billions of dollars each year on workforce training

There are willing employers and they know what they need, so ask them:
- Employers responded to surveys
- The LinkedIn Workforce Report makes this even easier

Both hard skills and soft skills are critical:
- Successfully attaining a job required a base level of technical know-how. For those above that baseline, soft skills – not the marginal difference in technical knowledge – best explained the difference between short and long job searches.

Job search support is a difference-maker:
- When training people who haven't gone through a tech sector interview process in the past, consistent and professional job search support is necessary.

Talent abounds. The most disenfranchised groups can succeed if given the opportunity:
- Diverse and representative of the city
- Helping those who need it most

A smart investment by taxpayers:

Tech Jobs Academy is a program that seeks to deliver opportunity to an entire community, not just select parts of it. To this end, the pilot program conducted citywide outreach to attract trainees from all five boroughs of New York City.

Bronx
4

Brooklyn
17

Manhattan
17

Staten Island
1

Queens
8
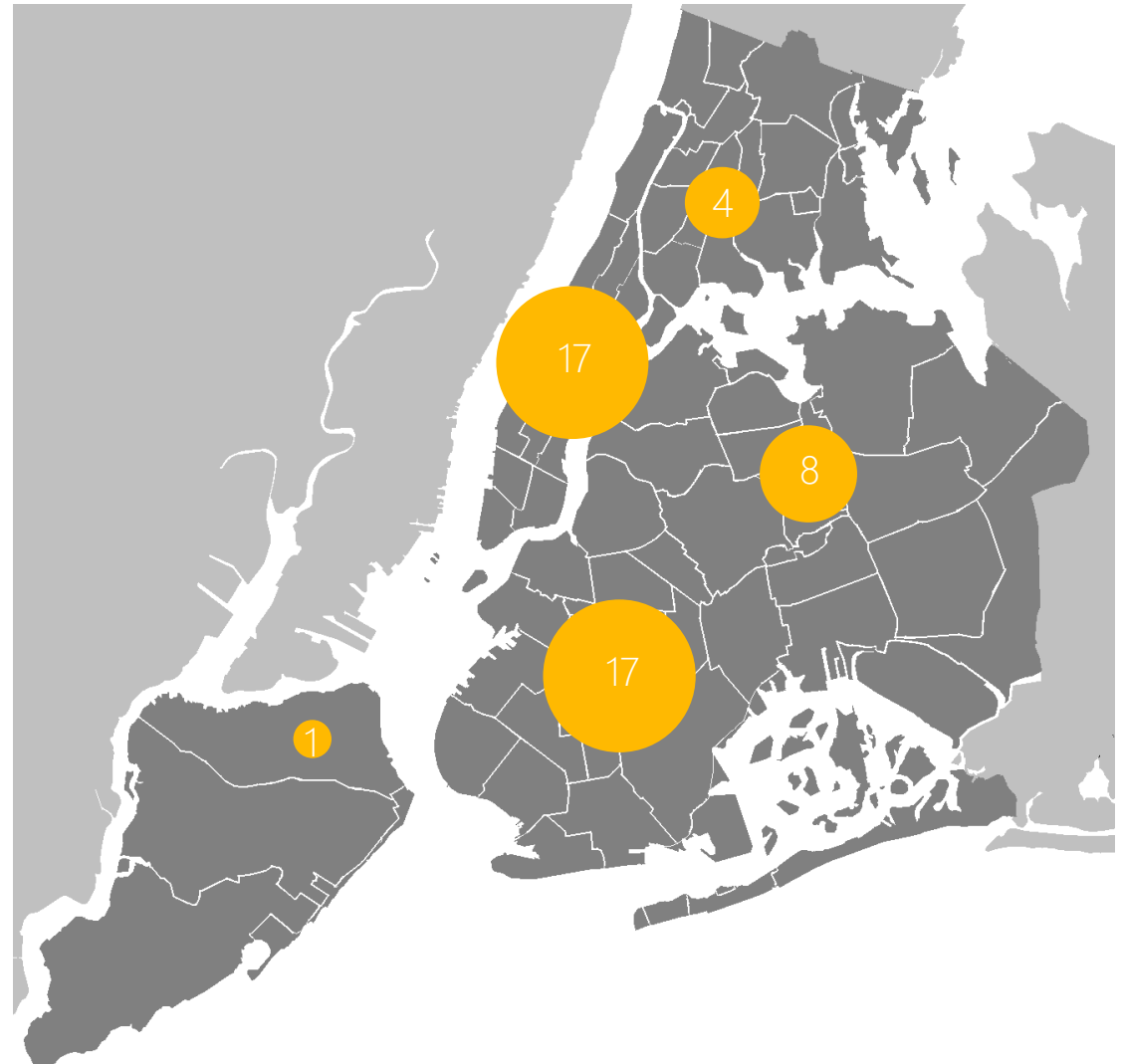
Tech Jobs Academy is an inclusive program. Despite dedicated outreach to groups underrepresented in technology, the program's pilot cohorts reflected the gender breakdown of the tech sector and skewed male (although an increase in gender diversity was visible between the program's first and second cohorts).

Cohort One

Female 22%

Male 78%

Female 26%

Male 74%

Cohort Two

Female 29%

Male 71%
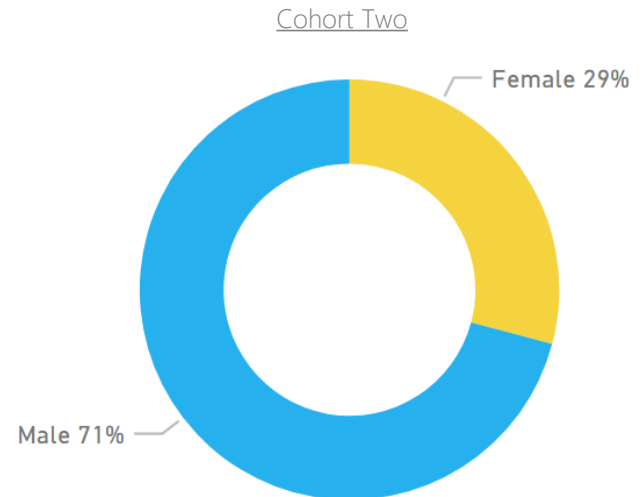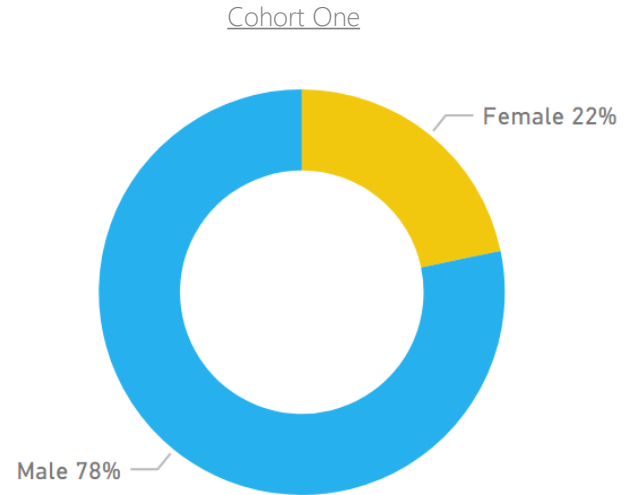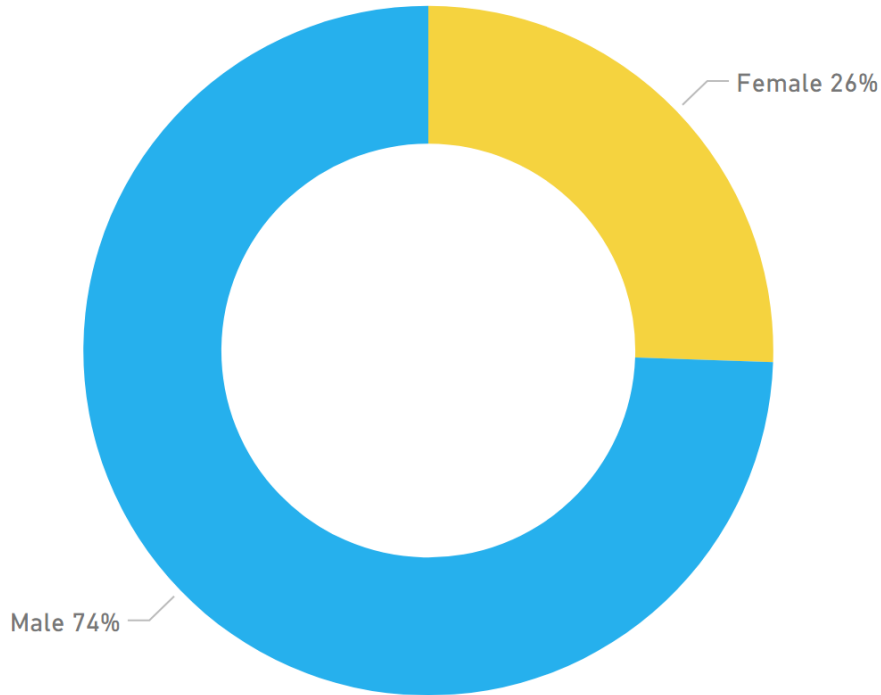
Trainee ages ranged from 21 to 60, with over half of trainees falling in the 25-34 age bracket. Outcomes data showed that Tech Jobs Academy helped people find success regardless of age.

age bracket ● 18-24 ● 25-34 ● 35-44 ● 45-54 ● 55+

113
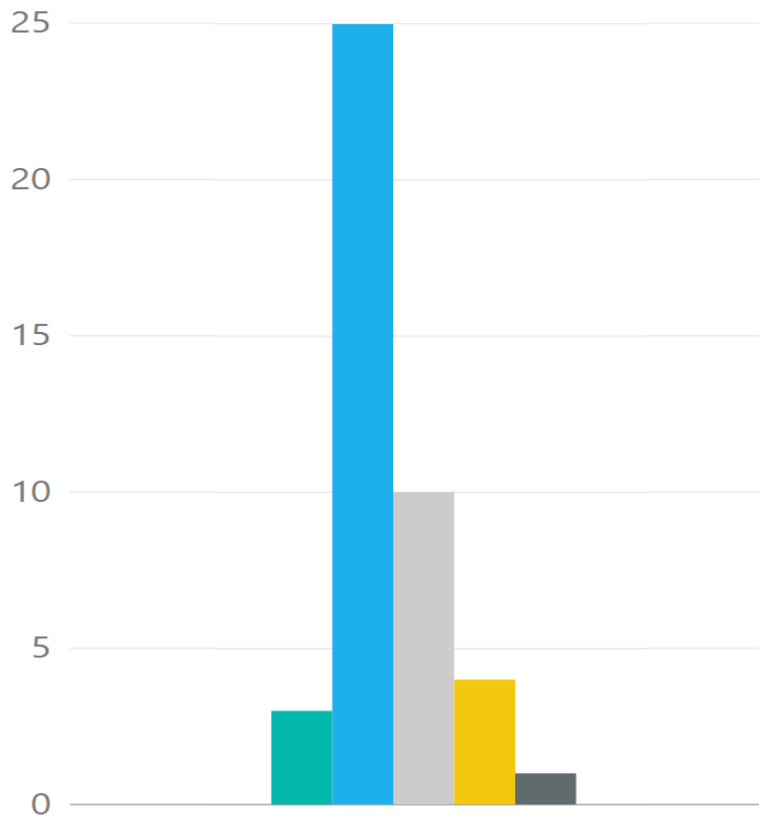
6.5: Race & Ethnicity
Outcomes & Data Visualizations

The New York City pilot of Tech Jobs Academy was racially and ethnically diverse. Of the 50 trainees across two cohorts, the plurality were Black, followed by roughly equal numbers who were White and Asian-American. Racial and ethnic diversity was a priority during the marketing process, given demographic realities of the income gap and the tech sector workforce.

Other 6%

Asian or Pacific Islander 30%

Latino 23%

Non-Latino 77%

Black 34%

White 30%

Cohort One

Asian or Pacific Islander 9%

Black 61%

White 30%

Cohort Two

Other 13%

Black 8%

Asian or Pacific Islander 50%

White 29%
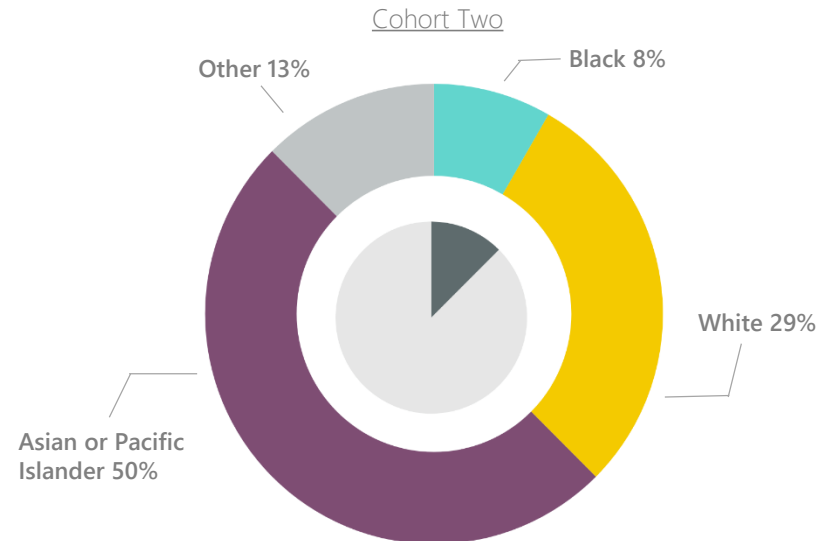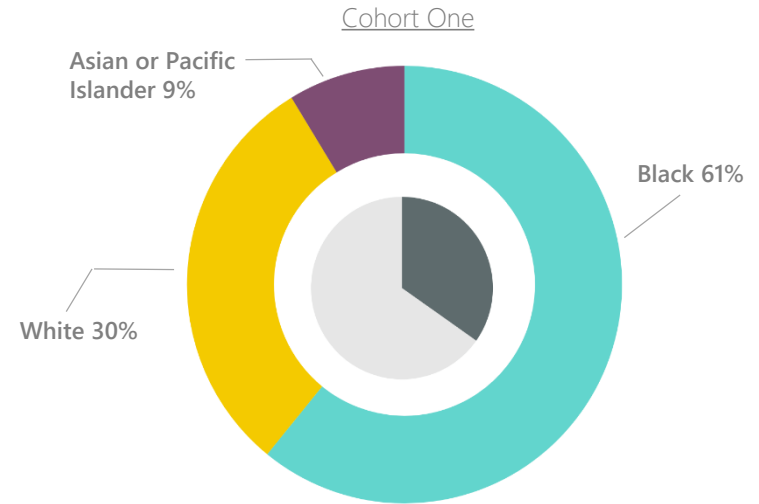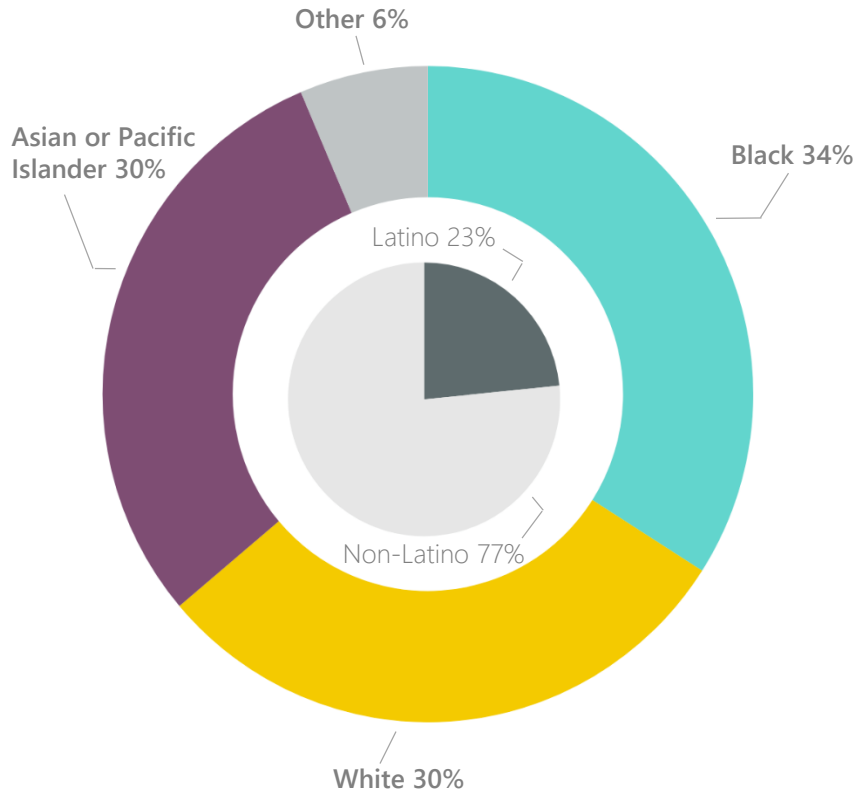
6.6: Education

Trainees from the full range of educational backgrounds have participated in and found success from Tech Jobs Academy.
The first cohort of Tech Jobs Academy was specifically targeted towards those without 4-year college degrees. This education cap was removed for the second cohort and, as a result, the second cohort had received significantly more formal education, on average.

Cohort 1 2

Cohort One

Cohort Two
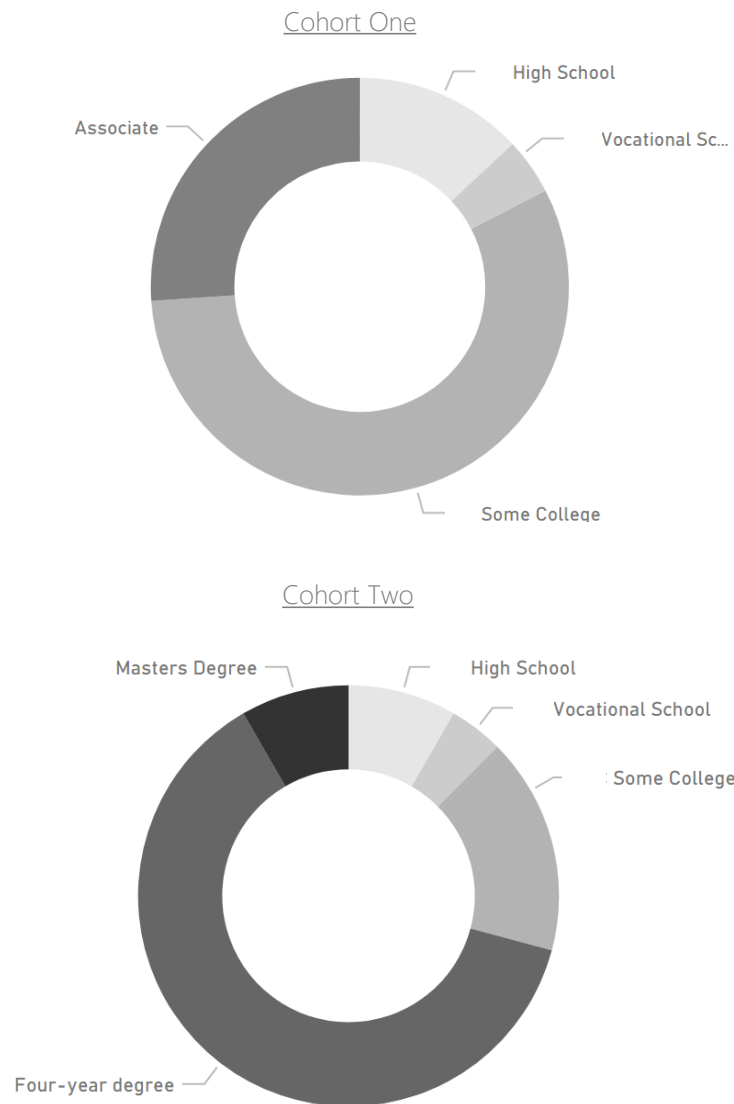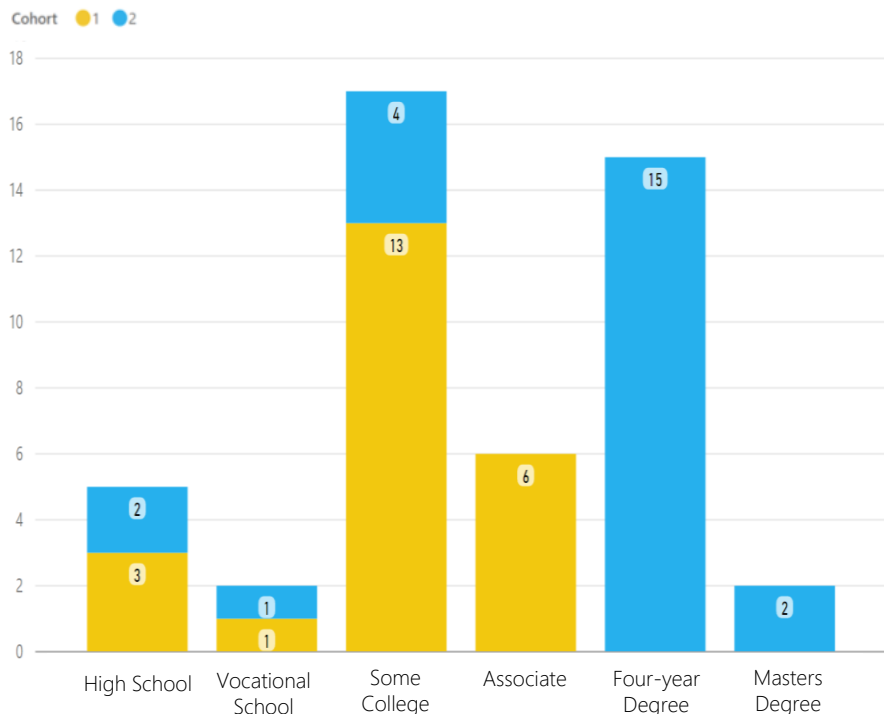
Tech Jobs Academy is committed to giving trainees all the tools they need to succeed in their new career path. This includes not just offering in-demand tech skills, but the soft skills to match. As such, professional development and group projects comprise substantial portions of the 1,000-hour curriculum.

Category	Hours
Technical Study	450
Professional Development	200
Group Projects	150
Certification Exams	100
Other	100
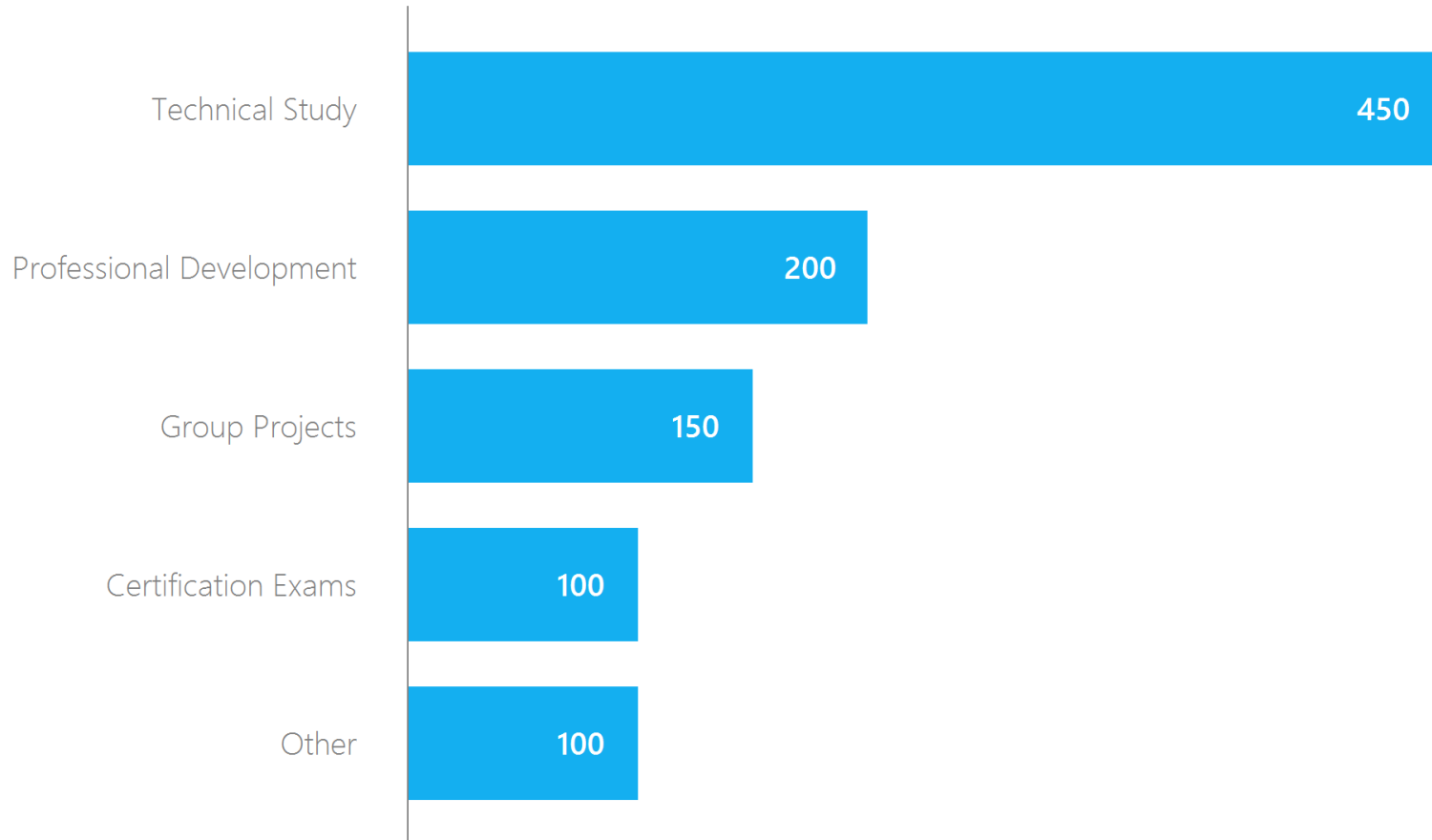
Median time to hire for Tech Jobs Academy graduates during its pilot year in New York is roughly 3 months.
Importantly, median time to hire was cut nearly in half from the first cohort to the second, likely as a result of increased emphasis by program staff on job-search efforts, earlier on, during both the Planning and Program Phases.
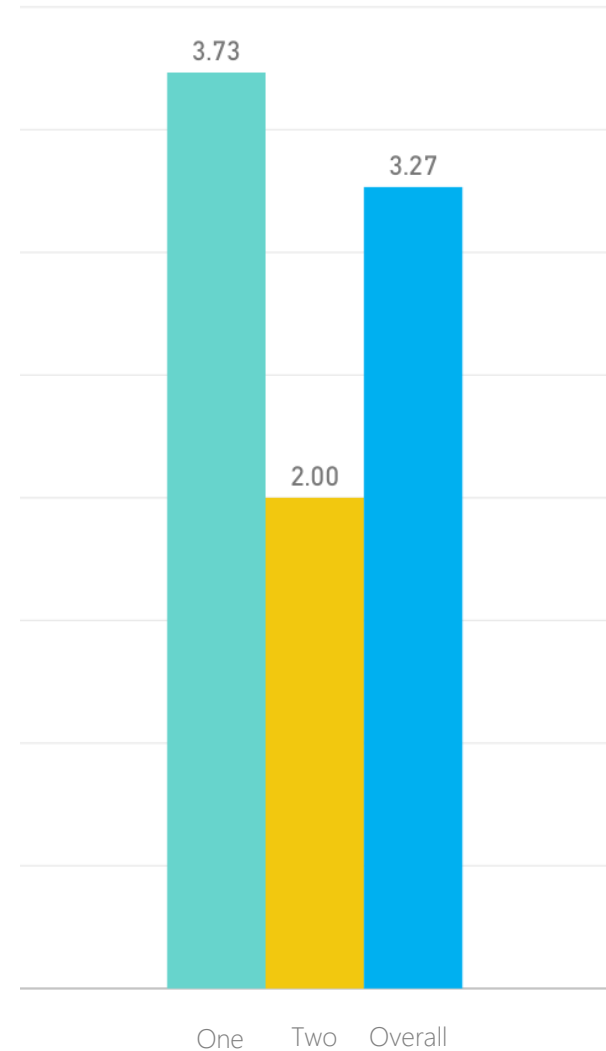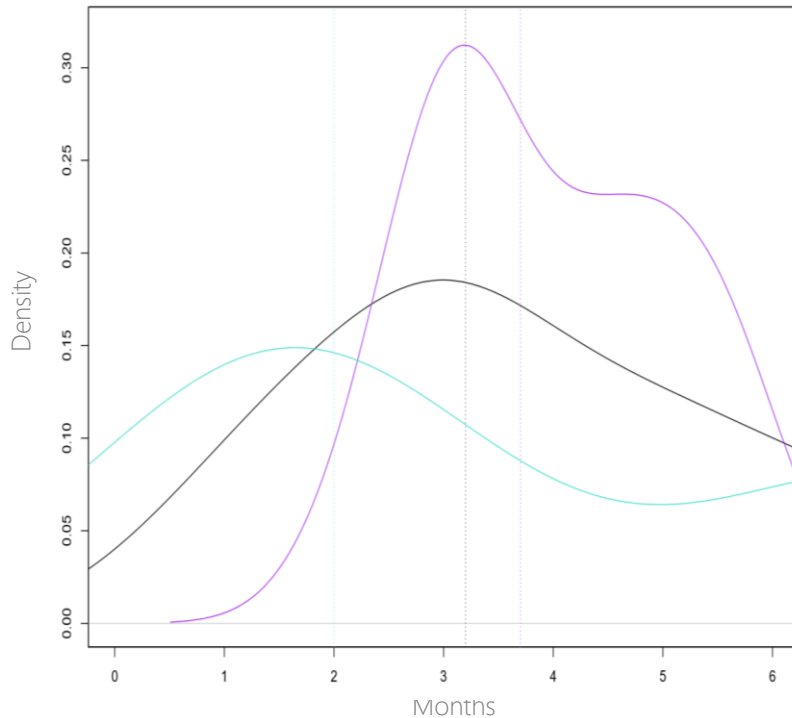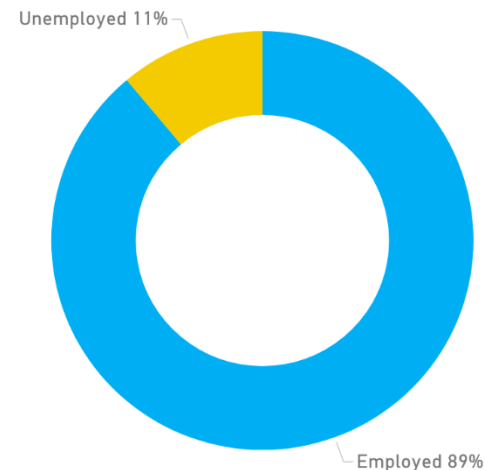
Almost all Tech Jobs Academy graduates who have actively searched for jobs now have them. Just as the U.S. Bureau of Labor Statistics counts only people who actively search for work as unemployed, the same rubric was followed for the below graphic.
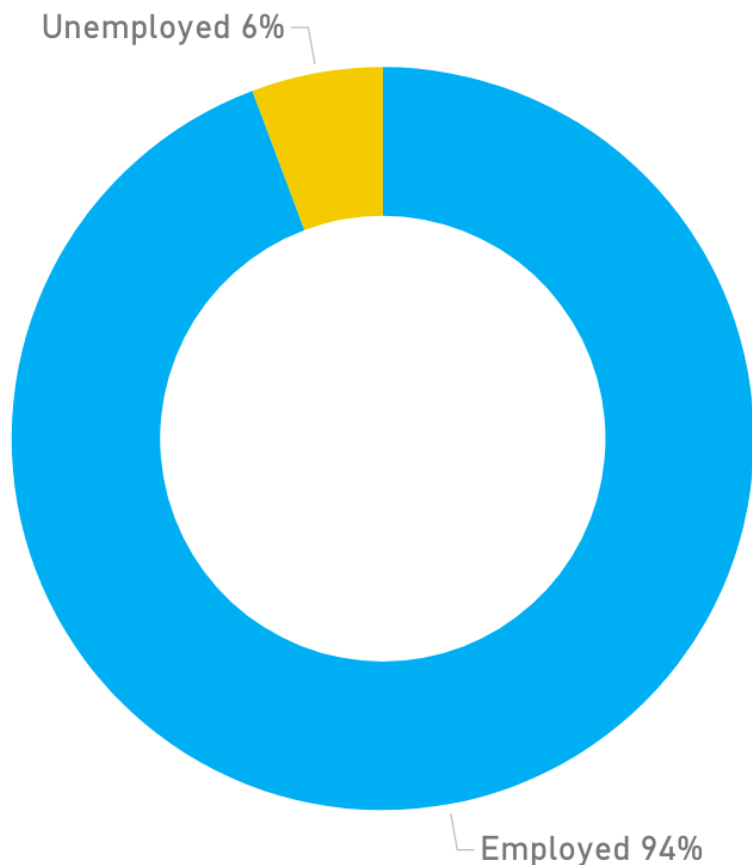
Unemployed 6%

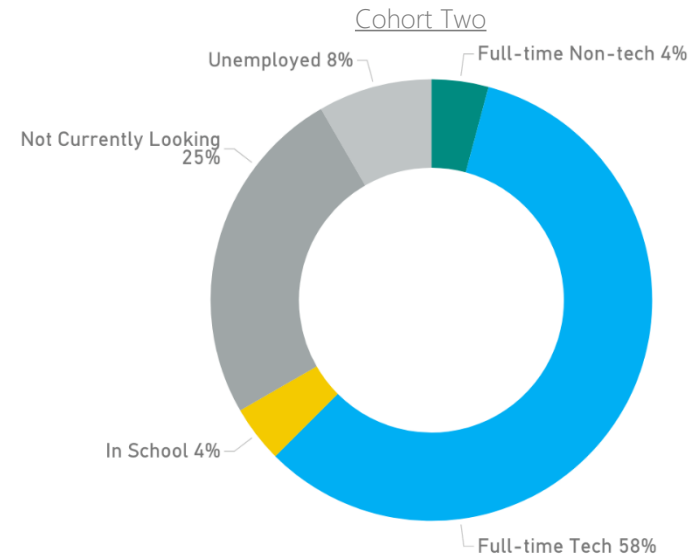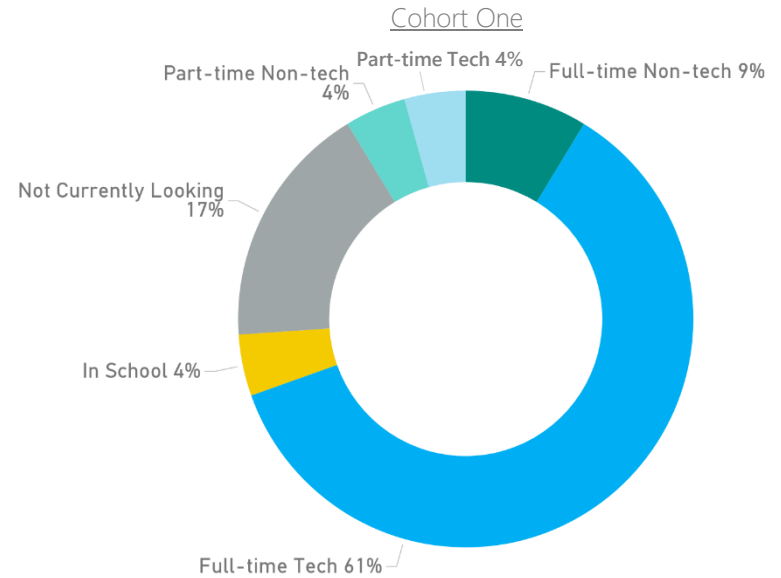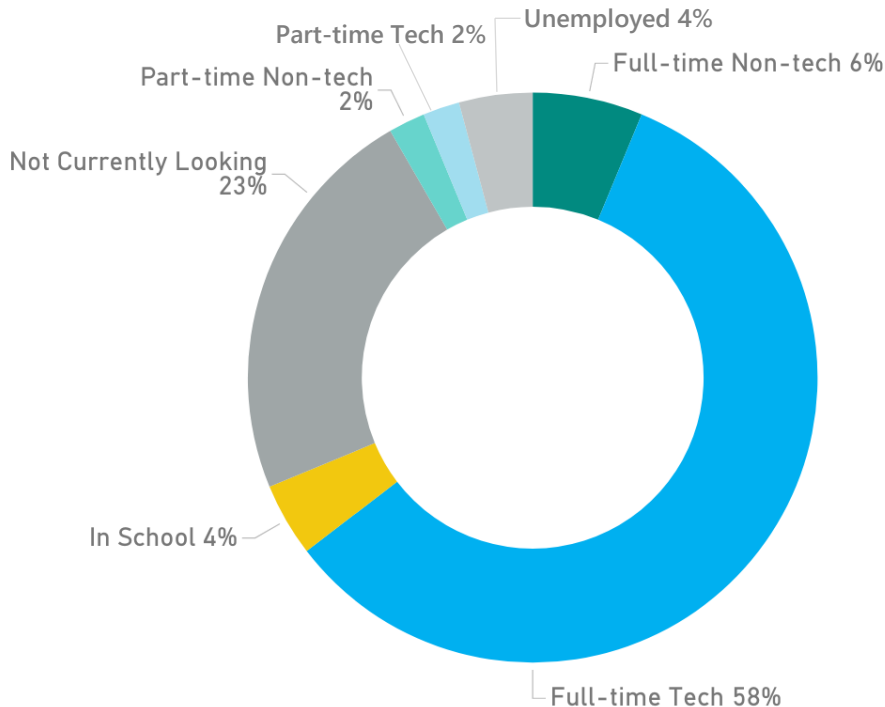Employed 94%

Cohort One

Employed 100%

Cohort Two
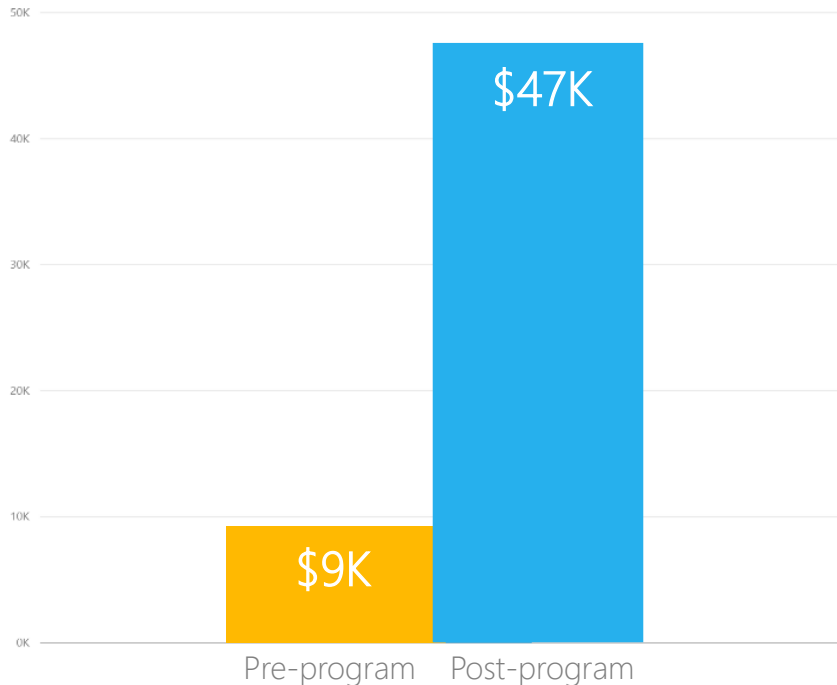
Unemployed 11%

Employed 89%
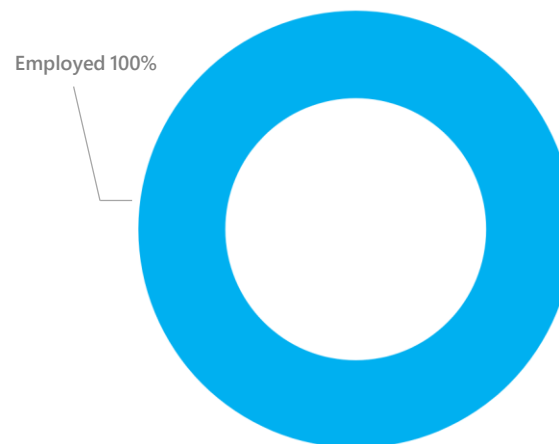
The majority of Tech Jobs Academy participants go on to work in full-time technical roles. Some graduates are working part-time or contract roles, with a preference for finding full time work and a small number have chosen to take on non-technical roles. A larger-than-expected number of graduates have chosen not to look for work – a decision that increased from the first cohort to the second, possibly due to the addition of candidates with advanced degrees, which may indicate an existing selectivity or contentment with joblessness.
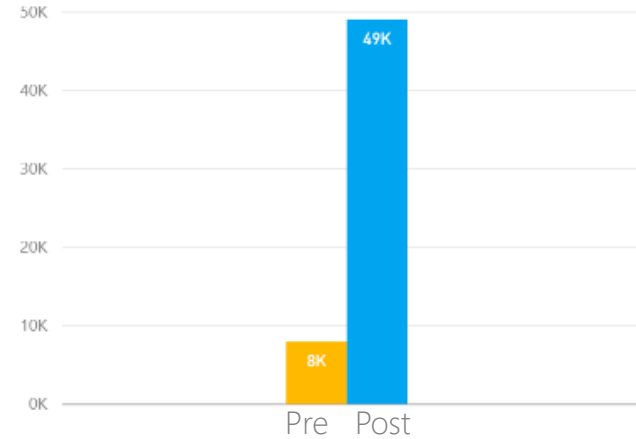
Cohort One

Part-time Non-tech 4%
Part-time Tech 4%
Full-time Non-tech 9%
Not Currently Looking 17%
In School 4%
Full-time Tech 61%

Part-time Tech 2%
Unemployed 4%
Part-time Non-tech 2%
Full-time Non-tech 6%
Not Currently Looking 23%
In School 4%
Full-time Tech 58%

Cohort Two

Unemployed 8%
Full-time Non-tech 4%
Not Currently Looking 25%
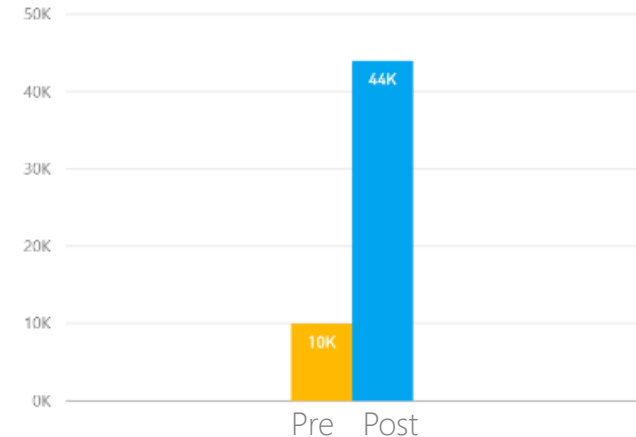In School 4%
Full-time Tech 58%

Average income increased 5.2x. Prior to Tech Jobs Academy, the vast majority of trainees were either unemployed or working only low-wage, part-time jobs. The average pre-program income was just $9,000 per year, well below the poverty line. After Tech Jobs Academy – with new, in-demand skills – the average salary jumped to $47,000 per year, a solid middle-class income.

Cohort One

50K
40K
30K
20K
10K
0K

8K

49K

Pre   Post

Cohort Two

50K
40K
30K
20K
10K
0K

10K

44K

Pre   Post

50K

$47K

40K

30K

20K

10K

$9K

0K

Pre-program   Post-program

Appendix

Appendix

Materials needed to plan and operate a local instance of Tech Jobs Academy can be found at:

TechJobsAcademy.com/Appendix

General

- Tech Jobs Academy Overview Video
- "April's Story" Video
- Program Website
- GitHub.com/TechJobsAcademy
- Microsoft Blog Posts
  - o Announcing Tech Jobs Academy
  - o Applications Open for Cohort 2
  - o Celebrating Cohort 1
  - o TechHire & Tech Jobs Academy

Planning Phase

- One Pager
- Non-Disclosure Agreement
- Project Manager Job Description
- Employer Survey
- Employer Info Sheet
- Recruitment Info Sheet

Program Phase

- Code of Conduct
- Professional Development Checklist
- Resume/LinkedIn Standard
- Collection of Technical Writings from Graduates
- Group Presentation Guidelines
- Cloud Project Outline
- Sample Weekly Schedules
- Day-by-Day Schedules

Placement Phase

- Graduation Agenda
- Post-Program Plan

Contact Us

- TechJobsAcademy.com
- Info@TechJobsAcademy.com
- Learn about additional Microsoft programs related to empowering a future-ready workforce

Rewiring the U.S. labor market isn't easy,
and it won't be accomplished solo.
Let's do it together.

Get involved:
TechJobsAcademy.com

"Thank you for taking a chance on me and
for changing my life. And please –
don't stop."

— John Spruill, Graduate