



From Medieval to Millennial

BUILDING &
MARKETING MODERN,
YOUTH-ORIENTED
APPRENTICESHIP
PROGRAMS

Eve Rips
August 2016

Contents

<u>Introduction</u>	<u>3</u>
<u>Background: Why Apprenticeships Now?</u>	<u>4</u>
<u>Project Structure and Methodology</u>	<u>7</u>
Youth Leader Development	8
Youth Survey	9
<u>Youth Perspectives on Apprenticeships</u>	<u>9</u>
Key Program Components	12
Marketing Apprenticeships	15
<u>Case Study: Designing a Millennial Health Apprenticeship for Chicago</u>	<u>19</u>
<u>Conclusion</u>	<u>20</u>
<u>Appendix I</u>	<u>21</u>
<u>Appendix II</u>	<u>22</u>
<u>End Notes</u>	<u>26</u>

About Young Invincibles

Young Invincibles is a non-partisan, non-profit organization that works to expand economic opportunity for young adults -- ages 18 to 34 years old -- through policy analysis and advocacy. With offices in six major cities across the country, its research and organizing experts seek to elevate the voices of young adults in top policy debates, and provide solutions to major economic challenges for the Millennial generation.

Acknowledgements

The author would like to thank the Polk Brothers Foundation for their generous support of this work. She would also like to acknowledge the following people for their thoughtful comments, edits, and support: Jennifer Mishory, Rory O'Sullivan, Christopher Nellum, Reid Setzer, and Kaile Sepnafski. Particular thanks are due to Elena Sakopoulos for the ongoing feedback, youth organizing work, and community outreach around this project, and to the young adults who participated in this process and gave insightful commentary throughout. Finally, the author would like to recognize Nina Smith and Laura Adviento for their hard work in communications and graphic design.

Apprenticeships increasingly provide valuable opportunities for young adults, but young adult access to and knowledge about apprenticeships remains low. This report highlights three key misconceptions that Millennials hold about apprenticeships: that apprenticeship programs don't currently exist in their communities, that apprenticeships don't pay, and that participating in an apprenticeship means never receiving a college degree. Based on these misconceptions about apprenticeships, as well as stated job preferences among Millennials, we advance six recommendations for building and branding youth-friendly apprenticeship programs. On the programmatic side, we recommend expanding pre-apprenticeship and job shadowing programs, building more apprenticeships that provide the option to receive college credentials, and starting apprentices in cohorts. On the marketing side, we suggest being more explicit about wages, building innovative social media marketing strategies, and using near-peers as ambassadors. Doing so will both build a broader base of Millennial support for these programs and ensure that opportunities fit the needs of today's young people.

Introduction

Apprenticeships can feel like they are from another era, but they also increasingly provide promising opportunities for young adults today. On the one hand, the public perception of apprenticeships remains medieval – the term conjures up images of blacksmiths forging arrowheads, hunched over a fire. However, contemporary Registered Apprenticeship (RA) programs address a very modern set of challenges that face Millennials looking for economic stability in an era of skyrocketing college tuition and high youth unemployment. Employers have a high demand for workers trained at a “middle skill” level relative to supply,¹ which means apprenticeships can address modern employer concerns as well.

Apprenticeships are gaining momentum at both federal and state levels. The Obama administration and Department of Labor have prioritized apprenticeship access, launching a new \$175 million apprenticeship grant initiative. Federal legislation that would support the expansion of apprenticeship programs, such as the Leveraging and Energizing America's Apprenticeship Programs (LEAP), Promoting Apprenticeship for Credentials and Employment (PACE), and Effective Apprenticeships to Rebuild National Skills (EARNs) Acts, are seeing a new bipartisan surge in popularity. States such as South Carolina and Wisconsin have successfully expanded their apprenticeship programs, and served as laboratories for developing new ideas related to apprenticeship.²

“Apprenticeships ...aren't those, like, from the Middle Ages?”

- Matthew, age 17, Chicago

Apprenticeships increasingly show promise as opportunities for addressing young adult unemployment and the middle skills jobs gap, but current investments in apprenticeships tackle just a sliver of the youth employment problem, the grassroots demand remains low, and many aspects of existing programming seem outdated. With increased policy interest in expanding apprenticeship programming, the political moment

seems ripe to 1) pave the way for more community-led demand for this important career pathway, and 2) ensure that programs are scaled meet the needs of today's young people. In order to build a culture in which young adults understand the apprenticeship opportunities that are available to them, take apprenticeships seriously when beginning to plan their career pathways, and demand expanded opportunities in their own communities, decision-makers will need to engage young adult perspectives from the start. As federal and state governments are looking to increase the number of apprenticeship opportunities available to young people, it will be increasingly critical to account for the perspectives of today's young adults.

To that end, we surveyed over 200 Millennials in the Chicagoland area, and held roundtables with an additional 75 young adults, in order to learn more about what Millennials currently know about apprenticeships, and what they would like to see in an earn-and-learn opportunity. This report combines data on program effectiveness with the perspectives we heard from those discussions in order to make concrete recommendations for both employers and political decision-makers on how to build and brand an apprenticeship program that works for today's young adults.

The first section provides background on how apprenticeships can help address many of the economic challenges facing young people today, and gives an overview of current efforts to expand apprenticeships. The next section provides information on the project structure and the methodology underlying our research. The third section discusses current attitudes toward apprenticeship among Millennials, and highlights three common misconceptions: that apprenticeships are no longer available in young adult communities, that they function as unpaid internships, and that they always preclude receiving college credentials. The fourth section makes a series of six recommendations for creating and marketing an apprenticeship program for Millennials: we propose that new apprenticeship initiatives should take advantage of Millennial priorities by expanding pre-apprenticeship options, starting apprentices in cohorts whenever possible, and expanding options for receiving college credentials. We also suggest that marketing for apprenticeship programs should directly addresses misconceptions about wages, and should build awareness through both near-peers and social media. Finally, we pull these recommendations together by looking at health career tracks in Chicago as an example and profiling what a truly Millennial-oriented health care apprenticeship program might look like for the region. We address recommendations throughout to both employers and to political decision-makers as they look into building a youth perspective into work-based learning initiatives.

Background: Why Apprenticeships Now?

Apprenticeships can help bridge the gap between employer concerns about training and worker needs for improved employment outcomes. Broadly, apprenticeships provide young adults the chance to prepare for a career while receiving payment. Apprentices earn a salary while participating in training on a skilled job through a mix of supervised work-based learning and academic instruction that is directly related to the job. Programs typically last between two and four years. Some apprenticeship participants can also earn a two or four-year degree as part of their training. When participants complete an apprenticeship program, they receive a credential attesting to their training and their mastery of the skill.³

1. Community Need: Helping Fill Middle-Skills Jobs

Even post-Recession, 6.6 percent of young adults between the ages of 18 and 34 remain unemployed.⁴ Youth unemployment varies dramatically by race, with the unemployment rate for young African Americans almost twice as high (12.0 percent) as it is for their age peers.⁵

Currently, 54 percent of all American jobs are middle-skill, meaning they require more than a high school diploma but less than a four-year degree.⁶ However, only 44 percent of the country's workers are trained to a middle-skill level.⁷ This has created a middle-skills jobs gap, where many industries remain unable to find an adequate number of properly-trained employees.⁸ The Georgetown University Center on Education and the Workforce predicts that by 2018 the United States will face a shortage of workers with postsecondary credentials.⁹ They anticipate shortages of approximately 3,000,000 workers with Associate's degrees or higher.¹⁰ To add to these concerns, research shows that employers are currently spending less on training than they have in the past, but that when surveyed, employers frequently assert that a lack of properly trained employees is a serious concern for their organizations.¹¹

Studies have repeatedly shown that apprenticeships have clear financial benefits for participants. A 2012 Department of Labor study found that on average, participants in Registered Apprenticeship programs make \$300,000 more over the course of their lifetimes, including benefits, than their peers.¹² Countries that have robust apprenticeship programs have been shown to have lower overall youth unemployment rates.¹³

Apprenticeships also show a strong return on investment. The 2012 DOL study found that the federal government receives a \$27 return on apprenticeship programs for every dollar spent, and that benefits of Registered Apprenticeship programs exceed their costs to employers by over \$49,000.¹⁴

2. Current Expansion Efforts

Because apprenticeships pose such a promising solution to the middle skills jobs gap and youth unemployment, apprenticeship programs have seen a recent surge of interest nationally. Over the past years, several key pieces of legislation that would support apprenticeship at a national level have been introduced. In 2014, Senators Cory Booker and Tim Scott introduced the Leveraging and Energizing America's Apprenticeship Programs (LEAP) Act, which would provide tax credits to employers who offer apprenticeships to young adult workers, creating approximately 400,000 positions nationwide.¹⁵ In 2015, Senators Cantwell, Collins, Kaine, and Gillibrand introduced the Apprenticeship and Jobs Training Act of 2015, also aimed at creating a federal tax credit for employers who establish Registered Apprenticeship programs, and focused on expanding apprenticeship opportunity for veterans.¹⁶

In 2015, Senator Murray and Congressman Pocan introduced the Promoting Apprenticeships for Credentials and Employment (PACE) Act, which would expand apprenticeship access in a number of ways, including increasing funding for incorporating apprenticeship options into postsecondary education programs, and helping expand opportunities in fields that currently are not well-represented in Registered Apprenticeship programs.¹⁷

Many of the provisions of the PACE Act have recently been adapted into the bipartisan Effective Apprenticeships to Rebuild National Skills (EARNs) Act, sponsored by Senators Murray, Hatch, Kaine, Scott,

Franken, and Collins, which would codify the Office of Apprenticeship at the Department of Labor, support and promote the development of pre-apprenticeship programs, improve diversity in apprenticeships, create a more formalized mechanism for conferring academic credit for apprenticeships, and increase overall awareness among young adults and their parents of apprenticeship programs.¹⁸

President Obama and the Department of Labor have also placed a priority on apprenticeship access in recent years. In 2014, Obama introduced the American Apprenticeships Grant program to fund expansion of apprenticeships. In 2015, the Department of Labor awarded \$175 million in grants to 46 programs across the country.¹⁹ The American Apprenticeship Grants are intended to diversify the fields available to apprentices, with grants awarded to programs in a diverse range of industries including healthcare and information technology (IT).²⁰

Additionally, several states have built out new apprenticeship models. Notable among these are South Carolina's new apprenticeships initiative and Wisconsin's youth apprenticeship program. The Apprenticeship Carolina program, first launched in 2007 with 90 employers represented, now covers 670 companies and has supported over 11,000 apprentices.²¹ The program provides companies with a tax credit of \$1,000 per apprentice.²² The program also provides consulting help for employers who are considering launching apprenticeship programs.²³ In addition to running a robust Registered Apprenticeship program, Wisconsin has also run a unique Youth Apprenticeship Program since 1991 that offers one-to-two year apprenticeships to over 2,500 high school students each year.²⁴ The program has shown success bringing in a large number of students and employers and has received even more funding in recent years.²⁵ While longitudinal data is hard to come by, the middle-skills jobs gap in Wisconsin is smaller than the national gap, with middle-skill jobs accounting for 56 percent of the market, and employees trained at a middle-skill level accounting for 49 percent of the workforce²⁶ (compared to 54 and 44 percent respectively nationally).²⁷ Ninety-seven percent of the employers who participated in the program reported that they would recommend participation to other businesses.²⁸

Employers themselves have also shown support for the expansion of apprenticeship programs. The Department of Labor's Apprenticeship LEADERs program has brought together 167 companies from a wide range of sectors to work collectively to share innovative practices and expand apprenticeships within their industries.²⁹ In a survey of more than 900 employers who participate in apprenticeship programs, employers overwhelmingly indicated that their programs were a net financial gain to the company.³⁰ Of those employers, 87 percent reported that they would strongly recommend Registered Apprenticeship programs, while an additional 11 percent would recommend RA programs with some reservations.³¹

With all this strong support for apprenticeships, rate of growth has still remained comparatively slow. Implementing an apprenticeship program can be daunting for businesses, and some employers are wary of the training requirements that need to be met in order to create and run a registered apprenticeship program. But in order for young people to demand more programs in their communities, they must first understand the opportunity.

Case Study: Health Jobs in Chicago

To narrow the scope of our inquiry, we prioritized research into health professions in Chicago as a key example of a regional industry that could benefit from expanded apprenticeships access, and that in particular would do well to build in a more explicit Millennial focus.

We focused on Chicago because of both high unemployment in the region and the heightened interest in expanding support for apprenticeship programs. Illinois currently has one of the highest unemployment rates (6.3 percent) in the nation.³² The average unemployment period for an Illinois resident lasts 38.5 weeks, a full five weeks longer than the national average.³³ The high unemployment rate hits communities of color hardest – according to a 2014 study from the Urban League, just 16 out of every 100 African American male teenagers in Chicago is employed.³⁴ A 2016 report from the Great Cities Institute found that nearly half (47 percent) of the African-American men between ages 20 and 24 in Chicago are both out of school and out of work.³⁵

Today there is tremendous room for the state's limited apprenticeship program to grow, and to build knowledge of and interest in apprenticeship programs among young adults, legislators, and industry representatives. Apprenticeships are a bipartisan issue that could see progress in a period of political stalemate in Illinois. Governor Bruce Rauner has expressed interest in expanding and improving apprenticeship programs for the state.³⁶ Apprenticeships in Illinois are constrained to a limited number of sectors, leaving space to expand into other growth industries.³⁷

Health care tracks in particular are a key industry where apprenticeship programs have room to expand. Although health apprenticeships are still comparatively uncommon in the region, the model is familiar to health care community. Medical residencies, while not officially apprenticeship programs, have a long history in the medical field of engaging new doctors in a model that shares many characteristics with a typical apprenticeship. Apprenticeships in health tracks are expanding, and are a priority for the US Department of Labor.³⁸

According to research from JP Morgan Chase, in 2014 there were more than 410,000 jobs in health care available in Chicago, making the field Chicago's largest private sector employer.³⁹ Health care professions represent 10 percent of the total job growth projected to happen in Chicago between 2014 and 2019.⁴⁰ Today, health care makes up 23 percent of middle-skill jobs advertised online in the region, including many of the highest paying middle-skill jobs.⁴¹

The Affordable Care Act has transformed the health care sector, making this a critical moment for restructuring health care career pathways. As health care increasingly relies on primary care services, the sector is seeing a shift toward jobs based out of primary care offices and community health centers.⁴² Industries are using this period of transition as a time to re-think their approaches to bringing on new employees, including evaluating new internship and work-based learning possibilities, making this an opportune moment to push for increased access to work-based learning programs.⁴³

Project Structure and Methodology

Throughout 2014, Young Invincibles met with young adults from across Illinois to talk about their top jobs priorities and spoke with hundreds of young adults at over 30 roundtables about employment opportunities. Through that process, we heard repeatedly from young adults that there was a real need for access to job training that would pay participants while they were receiving the training itself. Many young adults expressed the concern that it was hard to get initial job experience when all jobs seem to require prior

experience. Although no participants used the term “apprenticeship” directly, much of what we heard from young adults sounded like current Registered Apprenticeship and pre-apprenticeship programs.

In response, we set out in 2015 to answer a series of key questions:

1. If young adults are theoretically interested in programs that sound like apprenticeships, why is there not greater demand from young adults to scale existing programs?
2. If and when these programs do scale, can we collectively build and brand an apprenticeship that will be well suited for modern audiences?

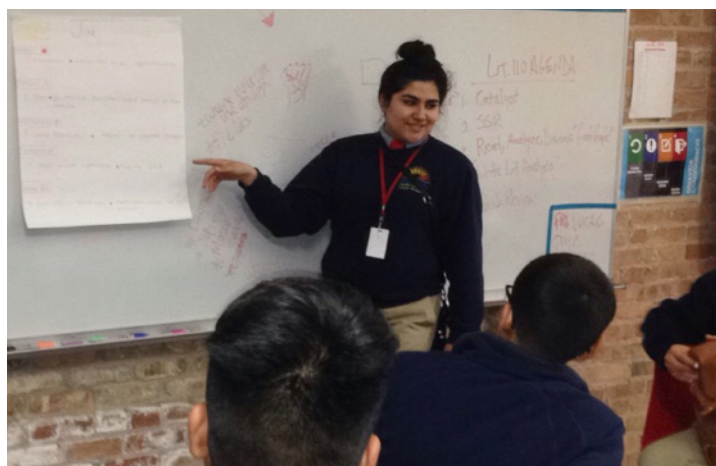


Antonio learns how bottles are made; drinking soda will never be quite the same again.

A. Youth Leader Development

We started by recruiting a cohort of young adults who were interested in learning more about apprenticeships and in helping us craft a new Millennial-friendly approach to apprenticeship access. We prioritized working with high school and community college students from Chicago with a stated interest in health careers, and who were also interested in thinking more about how apprenticeships in health tracks could be expanded locally.

In order to give us the best feedback, we knew our young leaders would need the skills and background to understand apprenticeship programs and how they would potentially fit into their career aspirations. As part of the Department of Labor’s Apprenticeships Week, we brought the cohort to Wisconsin to hear



Explaining the game plan for week one of a new apprenticeship program at a community roundtable.



Youth leaders discuss apprenticeship programs with Secretary Reggie Newson from the Wisconsin Department of Workforce Development.

directly from representatives of the Department of Workforce Development and participants in youth apprenticeship programs. Our cohort heard from leaders of, and from participants in, both Registered Apprenticeship programs and Wisconsin's Youth Apprenticeship Program. Youth leaders also toured the site of the Krones Manufacturing plant, and got to see first-hand what the daily requirements for Krones apprentices entailed.

Youth leaders then participated in, and helped recruit for, a series of roundtable conversations with young adults from across Chicago focused on what young adults currently know about apprenticeships, whether they would personally be interested in apprenticeship programs, and what would increase their interest level in earn-and-learn initiatives. Roundtable participants also engaged in a design-based thinking program where they broke into small groups and designed either their ideal first week of an apprenticeship program, or designed outreach materials that could help promote an apprenticeship opportunities to their peers.

B. Youth Survey

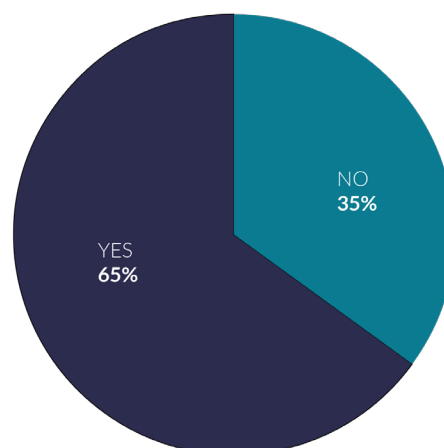
Finally, with the help of our cohort of youth apprenticeship experts, Young Invincibles surveyed 200 young adults from Chicago in late winter and early spring of 2016, in order to measure their attitudes toward apprenticeship and job training. Participants represented a range of different young adult perspectives that could potentially be targets for apprenticeship programs, and varied in age and current educational status. Specifically, 25.3 percent of respondents were currently in high school, 35.5 percent of participants were attending two-year colleges, 26.3 percent were attending four-year programs, and 12.9 percent were not in school. Participants were also indicative of Chicago's racial diversity (33 percent African American, 13.5 percent Asian American or Pacific Islander, 17.8 percent Caucasian, 35.1 percent Hispanic or Latino, .5 percent Native American) and gender diversity (55.4 percent female, 44.6 percent male). For a more complete demographic profile of survey respondents, see Appendix I.

Youth Perspectives on Apprenticeships

Broadly, our survey showed that while Millennials had generally heard of apprenticeship programs, misconceptions were pervasive. When asked "[h]ave you heard the term 'apprenticeship' before?," 65 percent of respondents reported that they had (see Figure 1). However, when asked more detailed questions about apprenticeship programs, three key misconceptions emerged: that apprenticeships don't exist in their communities, that apprenticeships are essentially unpaid internships, and that participating in an apprenticeship precludes getting college credentials.

Figure 1

Have you heard the term 'apprenticeship' before?



Misconception #1: Apprenticeships Don't Exist in Our Communities

Many young adults made it clear that they thought apprenticeships were a thing of the past. When asked “[a]re there currently apprenticeship opportunities available in Illinois?,” exactly half of the respondents thought there were apprenticeships available, and half thought apprenticeship opportunities do not currently exist in their communities.

This was echoed in roundtable discussions with young adults, where many participants were surprised to learn that apprenticeship programs are indeed available in their communities. Many participants, when asked what they initially think of when they hear



Many roundtable participants mentioned one of these three men when asked to describe a typical apprentice.

the term ‘apprenticeship,’ mentioned blacksmiths or sorcerers. When we asked participants about barriers to building successful apprenticeship programs in their communities, participants often mentioned lack of knowledge. “People don’t know apprenticeships exist,” one participant mentioned. “Basically, they’re just not informed.”

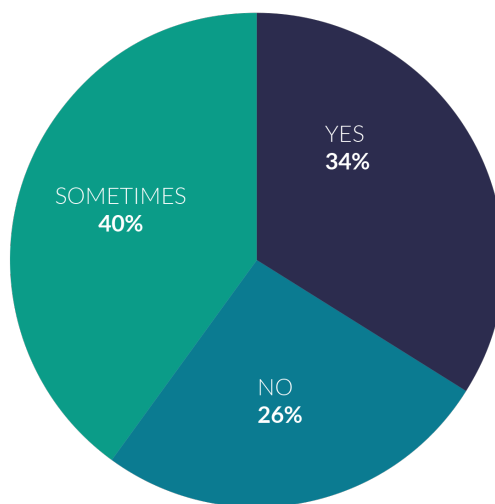
Misconception #2: Apprenticeship as Unpaid Internship

Another prevalent misconception was that apprenticeship programs function like unpaid internships. When asked, “[d]o people who participate in Registered Apprenticeship programs always receive payment while participating?” only one in three participants replied that they did (34 percent). The remaining 66 percent of participants responded that Registered Apprenticeships either only pay sometimes (40 percent) or that Registered Apprenticeships never pay. At 26 percent, more than one in four participants held this misconception. See Figure 2.

These misconceptions were born out when respondents were asked to provide their own definition of apprenticeship. Of the 132 respondents who took a stab at providing a definition, only 20 provided an answer that indicated that apprenticeship was job training that included payment. Eighteen respondents defined

Figure 2

Do people who participate in registered apprenticeship programs receive payment while participating?



apprenticeship by explicitly saying that an apprenticeship was an internship (many respondents just wrote “internship,” other definitions included “learning how to do a job, like an internship,” “internship for certain fields,” “an internship teaching you to become a mentor,” and “an internship program where you shadow someone with a job you are considering.”).

Although most respondents indicated that they thought people in their communities would be interested in apprenticeship programs, and that parents would be pleased if their children participated in an apprenticeship, the respondents who expressed concern often did so because of the perception that an apprenticeship was an unpaid training program. For example, students who expressed that they thought young adults in their communities would not be interested in apprenticeships stated things like “it sounds good but I would want to work,” “only if they get paid,” and “no, most young adults would want a real job with more money.” Similarly, when asked whether parents would generally be pleased to know that their son or daughter was participating in an apprenticeship program, several participants indicated concerns about payment, making statements including “yes, unless they have to pay for it,” “no, parents would want their kids to work,” and “I think they would see it as a benefit unless it costs money.”

Misconception #3: Apprenticeships Mean Never Pursuing a College Degree

Finally, many participants also expressed concern that apprenticeship programs meant never obtaining college credentials. While apprenticeships do provide an opportunity for young adults to obtain gainful employment without attending college, an increasing number of apprenticeship programs do include the chance to receive a two-year or four-year degree.

When asked to define “apprenticeship,” several participants explicitly included the fact that apprenticeships are in lieu of college programs (“a program where you learn how to work without going to college,” “training for jobs where you don’t go to college,” “job training for certain careers that don’t require a degree.”).

Similarly, when asked about whether young adults in their communities would be interested in apprenticeship programs, many respondents chose to frame their answers as either positive because apprenticeships are an alternative to college (“Yes, if they don’t want to go to college,” “Yes, it’s less expensive than college”), or negative because college would be preferable (“No, I wanted to go to college instead,” “I would rather go to college,” “More young people want to go to college.”).

This held true when participants were asked how parents would feel about their children participating in an apprenticeship program as well. Some participants thought parents would appreciate apprenticeships as an alternative to more expensive college programs (“Yes, it’s probably cheaper than college!”), several others thought parents would appreciate apprenticeships if their children weren’t interested in college (“Yes, I think if parents know their kids didn’t want to go to college they would still want them to learn,” “Yes, unless their child was going to go to college”), and another group felt parents would not be interested because it would preclude college (“No, because they want their kids to go to college, get majors”).

Roundtable participants also expressed concerns about tensions between participating in an apprenticeship program and getting a degree. One high school senior explained, “an apprenticeship wouldn’t open as many doors as a degree. You don’t know how safe they are. You hear people who go to college are set up for success, but you don’t know if that’s true for apprenticeship.” Overwhelmingly, participants felt that college would

help keep doors open and would satisfy their parents' expectations, and that one of the biggest downsides of an apprenticeship program would be closing those doors. When asked about apprenticeship programs that included the chance to receive college credit while participating, roundtable participants generally expressed strong interest.

Suggestions for Implementation: Six Tactics to Build and Market Millennial Apprenticeships

Based on common misconceptions about apprenticeships, as well as indicated job preferences among young adults, and information about how Millennials currently learn about new jobs, we propose six major recommendations for building and marketing Millennial-friendly apprenticeship programs. Both sets of recommendations are specifically targeted at thinking through launching and expanding new apprenticeship opportunities for young adult communities.

In actually designing apprenticeship programs, we recommend increased focus on pre-apprenticeship options, expanding programs that provide college credentials along with an apprenticeship, and starting new groups of apprentices in cohorts. On the branding and marketing side, we recommend increased clarity around the fact that Registered Apprenticeships pay well, building a more comprehensive digital outreach strategy, and using near-peers in outreach to new communities. All six pieces of advice can apply to individual employers or to state and federal attempts to build more comprehensive apprenticeship access. For example, expanding programs that provide college credentials along with an apprenticeship could mean prioritizing spending federal dollars on programs that include degree options, could mean building out additional state-level tax credits to support apprenticeships that include degree options, or could mean individual businesses working closely with local community college programs to create training opportunities. Similarly, federal, state, and business-led programs could benefit from increased specificity on wages in outreach materials. Ultimately what Millennials want to see in an earn and learn program remains consistent regardless of whether the program is supported by federal or state funds, or wholly owned by an individual employer.

A. Key Program Components

1. Expand Both Formal and Informal Pre-Apprenticeship Opportunities

While many young people expressed initial interest in apprenticeships, they were particularly interested in chances to explore apprenticeship options while still in high school, and were wary of considering apprenticeships seriously without chances to shadow programs first and learn more first-hand. This is particularly unsurprising in light of the low overall knowledge level about apprenticeship programs among young adults.

Many young adults mentioned early on that opportunities to get initial first-hand experience with what an apprenticeship is like would be helpful. For example, one participant recommended that apprenticeship programs should “start with an internship to get involved - maybe for a summer or a year, to get a sense of what the apprenticeship is.” Several participants also mentioned that getting to try a more limited version of an apprenticeship program for one year after high school, while considering their options, would also be helpful.

Pre-apprenticeships programs are designed to help prepare young adults to succeed in workforce pathways, and are built to help potential apprentices get opportunities to explore and learn about careers in their fields of interest. They require having a documented partnership with at least one Registered Apprenticeship program.⁴⁴ Pre-apprenticeship programs are also helpful to employers in building a qualified pool of applicants and advancing their own recruitment processes. Programs that would expand pre-apprenticeship opportunities, including the EARNs Act, as well as state-level initiatives to build out new opportunities similar to the Wisconsin Youth Apprenticeship program, have the dual advantage of meeting clear youth and employer needs.

However, even without formalized pre-apprenticeship programs in place, expanding opportunities to shadow existing apprenticeship programs, and incorporating site visits into recruitment, would provide young adults with critically-needed opportunities to learn more first-hand. Given that when surveyed many young adults felt they were missing opportunities to talk to people in their fields of choice, this would fill a key unmet need.

2. Build Programs with Integrated Degrees

While some participants appreciated that a college degree was not necessarily required for apprenticeship programs, many more expressed hesitation or concern. “For people who can’t completely afford college the ability to get an Associate’s degree while working would be incredible,” one participant explained. Another participant stressed that “in many cases, individuals leave school for the money. This would be a great benefit for communities in need.” Opportunity costs of college are high – estimated at over \$9,000 each year for a typical full-time student, going up to \$15,500 for the quarter of students who don’t work at all while in college.⁴⁵ With nearly 60 percent of students taking six years or more to graduate, these costs add up quickly.⁴⁶

Of course, for many young adults, having a viable option that does not require a college education will continue to be a strength of apprenticeship programs. For others though, integrating apprenticeships with degree programs can help address three main concerns that young adults expressed when asked about apprenticeship opportunities: that not having a college degree is stigmatized, that career flexibility is greater with a degree, and that not having a degree may ultimately limit opportunities for advancement within a company. These concerns are unsurprising given the substantial gaps in earnings between individuals with high school degrees and individuals with postsecondary degrees: the median weekly earnings for workers over 25 with a Bachelor’s degree is \$668 per week, while for their peers with Bachelor’s degrees earnings jump to \$1,193 per week.⁴⁷

Integrating apprenticeship programming with local higher education programs also fosters greater collaboration on training and curriculum overall between higher education institutions and employers, helping further address the challenges underlying the middle skills gap.

One promising example of this model is a recent initiative launched by the German-American Chamber of Commerce in Chicago, which places all apprentices in a tuition-free Associate’s degree program at Harper College. Participants not only graduate without college debt, but also receive a small monthly stipend while taking Associate’s degree classes intended to make it easier for them to focus on coursework rather than on working while in school. The program’s initial cohort has seen strong success, and the program recently received a grant from the Department of Labor for substantial expansion.⁴⁸

Expanding programs with degree availability should not be seen as precluding the continuation and expansion of options that allow young adults to start productive careers without a higher education. However, building and heavily promoting additional programs that feature similar degree integration will assist in expanding apprenticeship options to a new base of young adults who are interested in exploring apprenticeship but also concerned that not having a degree will limit their opportunities for advancement.

3. Start Apprentices in Cohorts

Young adults place high value on teamwork and building a sense of community within employment settings. Whenever possible, starting classes of apprentices who can launch their work as a group and receive training together will strengthen initial engagement and assist in building the sort of supportive team environment that many young workers prioritize.

Young adults explicitly mentioned the idea of cohorts at multiple points during the roundtable process, and the idea came up independently in the survey as well. For example, when asked what would increase comfort level in a new job, one respondent reported that “being part of a group that all starts the job together would help so that you have people to ask questions to.”

Other survey respondents stressed the importance of peers and teamwork when asked what would make them feel welcome at a new job. See Figure 3. Responses included “[c]aring and helpful people,” “knowing people there already,” “meeting lots of people before you start,” “having cooperative peers,” “I feel safe once I get to know everyone,” “being able to talk about your problems at work” and “having other people your age around.”

Figure 3

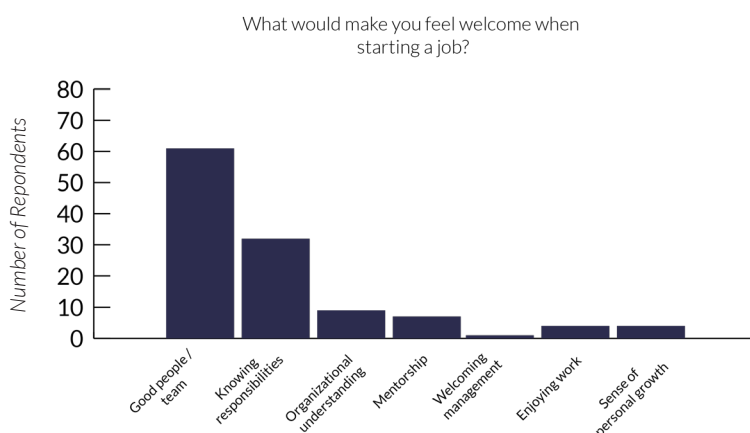
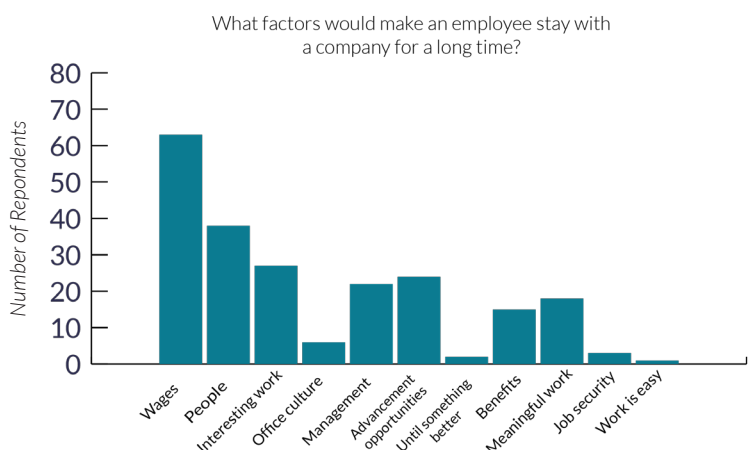
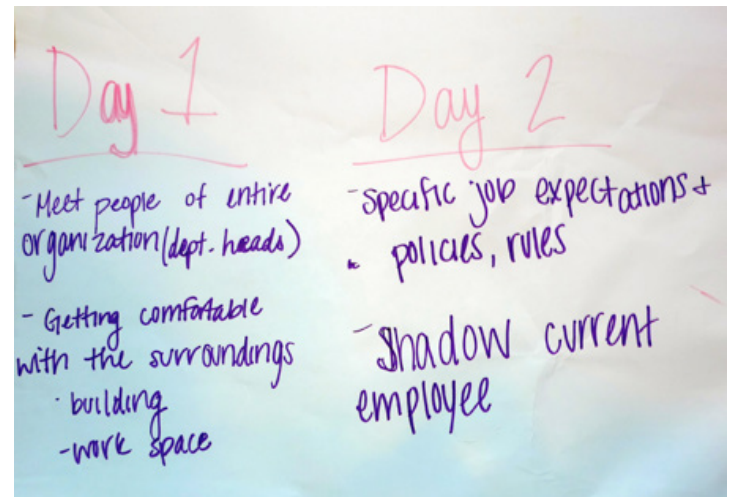
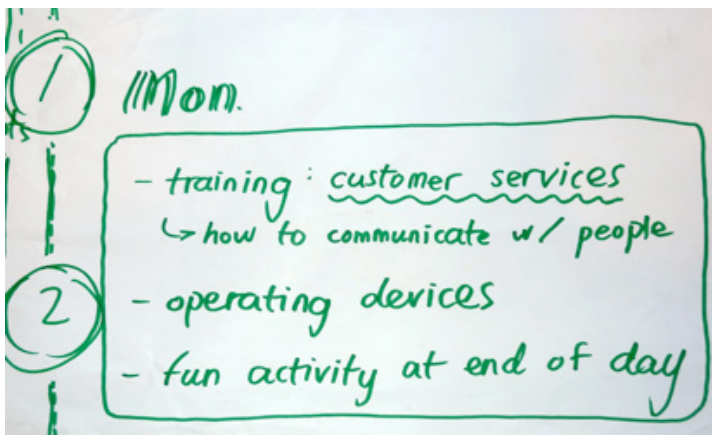


Figure 4



Similarly, when asked what factors they felt would make employees likely to stay with a company of a long time, although participants mentioned wages first, office culture and liking people were the second and third most commonly mentioned responses. See figure 4. This was echoed when roundtable participants designed their own schedules for the ideal beginning of an apprenticeship program – opportunities to build a team and participate in fun initial events were featured prominently. See figure 5 as an example.

Figure 5 High school students' suggestions for initial days of an apprenticeship program: getting to know coworkers and having fun are highlighted.



The survey respondents are reflecting what we know from research that we find in other educational spaces. For example, the National Center for the Study of Adult Learning and Literacy found that belonging to a cohort contributes to persistence in adult learning programs and faster development of key skills.⁴⁹ Research from Tennessee's Technology Centers similarly demonstrates that cohort-based training can lead to increases in completion and job placement rates for participants.⁵⁰ Programs like the Posse Foundation's scholars program have also relied on a similar model to increase higher education enrollment and completion rates for participants.⁵¹

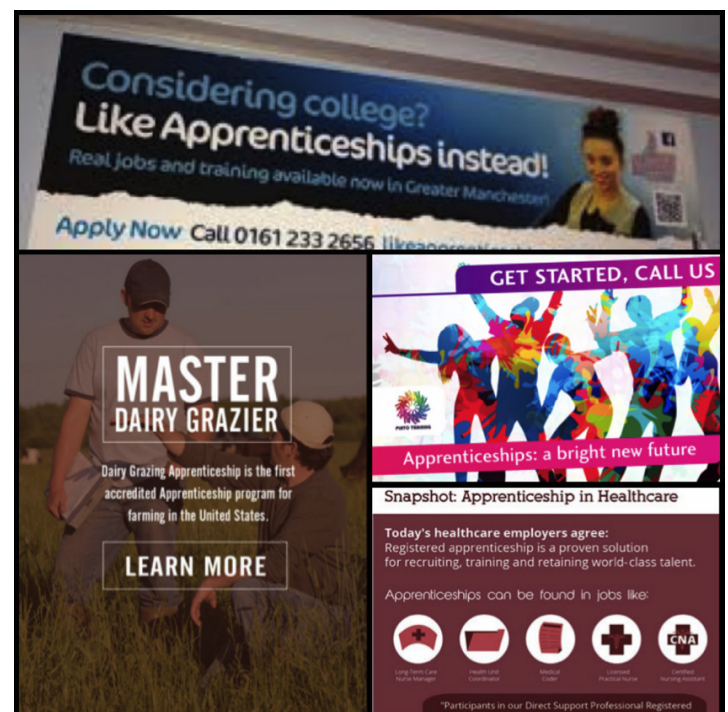
B. Marketing Apprenticeships

1. Be Explicit: Apprenticeships Pay

Wages are critically important to young workers. Wages ranked as the single most important factor that young adults looked at when assessing job opportunities on our survey. This finding aligns with broader research – a comprehensive survey administered by the Workforce Strategies Initiative at the Aspen Institute found that organizations that provide employment services to young adults listed job stability and wages as the most important factors to young workers.⁵² Despite this, only one in three young adults surveyed knew that Registered Apprenticeship programs always pay participants. Therefore, outreach to young adults about apprenticeship options needs to be explicit that apprenticeship programs offer competitive wages, and should

Figure 6

Real world apprenticeship ads: no mention of wages



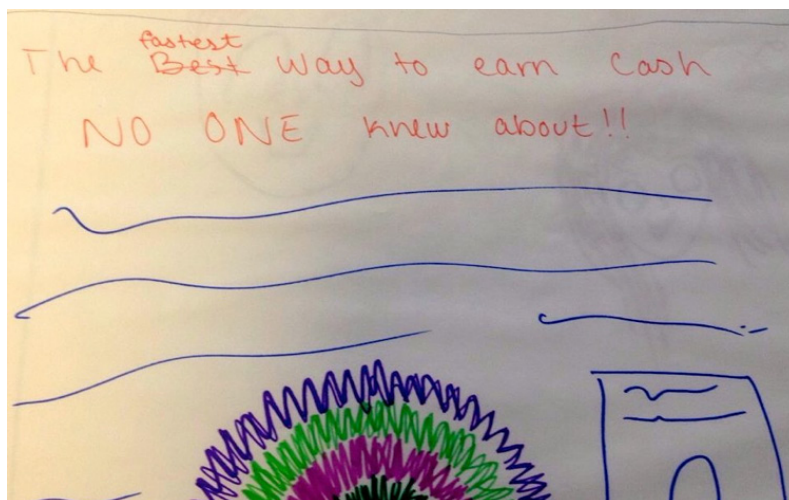
state clearly how much the programs pay from the start. Current outreach efforts often neglect to put information about payment for apprenticeships front and center (see Figure 6 for examples), perhaps wrongly taking for granted that targets will know or assume that apprenticeship programs pay. Outreach efforts in many cases should specify clearly the distinctions between apprenticeships and internships to clarify the persistent confusion between the two.

Although Millennials are sometimes perceived as caring more about flexibility and work environment than about wages, this is far from the case. When asked to rank each of eight potential advantages of an apprenticeship (wages, mentorship, structured learning, new friends, flexible hours, college credit, benefits, and career growth) on a scale from one to five, wages were overwhelmingly the most important factor to participants: 86.8 percent of participants listed wages as “very important” and an additional 7.7 percent listed wages as “somewhat important.” The average starting wage for an apprentice nationally is approximately \$15 an hour,⁵³ making apprenticeship a competitive option for young adults straight out of high school.

The need to be transparent and explicit about wages was also evident when young adults designed their own marketing materials for apprenticeships at our roundtables. Information about payment was consistently front-and-center (see figure 7 for an extreme example).

Figure 7

A flyer designed by high school students when asked about the ideal way to promote apprenticeship programs to their peers. Wages are the only aspect mentioned!



2. Build a More Comprehensive Online Marketing and Social Media Strategy

Young adults rely extensively on peers and online outreach when investigating new jobs. When surveyed about how members of their communities learn about new job opportunities, the two most commonly referenced methods by far were online (mentioned in 57 out of 143 complete responses) and through word of mouth (mentioned in 49 responses). See figure # for more information.

The tendency among young adults to look at online resources first was particularly evident when roundtable participants were asked to design materials that would be useful in marking an apprenticeship program to their peers. Overwhelmingly, participants designed mock-up digital materials. Participants were particularly interested in creating materials that could be shared peer-to-peer, and often emphasized that this could build trust and engagement among young adult populations. See Figure 8 for examples.

Legislation with a focus on increasing apprenticeship awareness, such as the EARNs Act, as well as other new apprenticeship awareness initiatives, such as the Department of Labor's Apprenticeships Week, should place top priority on digital outreach. The Department of Labor Office of Apprenticeship's ability to build strategic digital outreach will be particularly critical.

Businesses looking to hire new apprentices should consider targeted Facebook ads and promoted tweets that reach target young adult audiences. Roundtable participants expressed interest in sharing content that promotes good jobs to their peers, particularly when that content is built to be fun, accessible, and engaging. By creating sharable digital content about apprenticeship opportunities, employers can help promote career options and can build their talent pool in a way that most directly plays off of the strategies young adults already use when researching job and career options: looking online and talking to their friends. Businesses would also benefit from directly partnering with schools in their communities on sharing digital materials. Outside of word of mouth and online tools, survey respondents listed "through my school" as the third most popular way to hear about job opportunities. Formatting digital marketing materials to

Figure 8

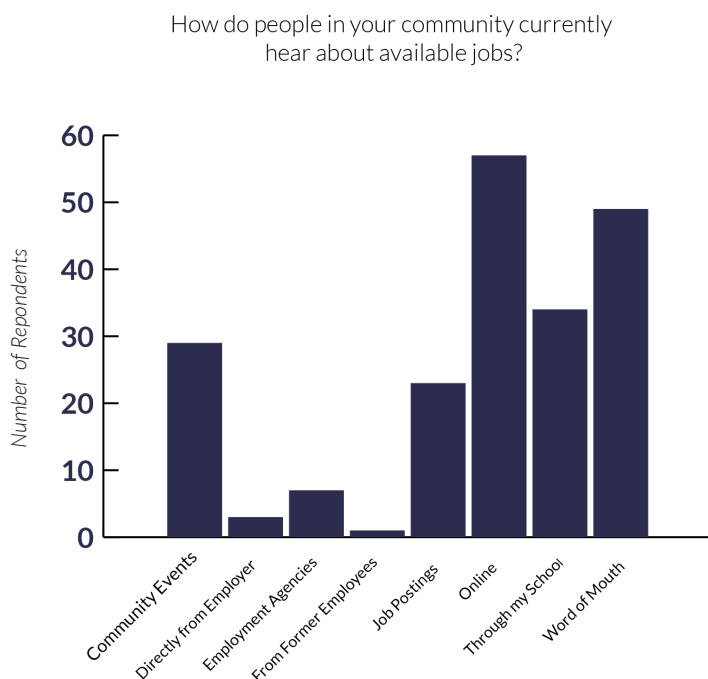
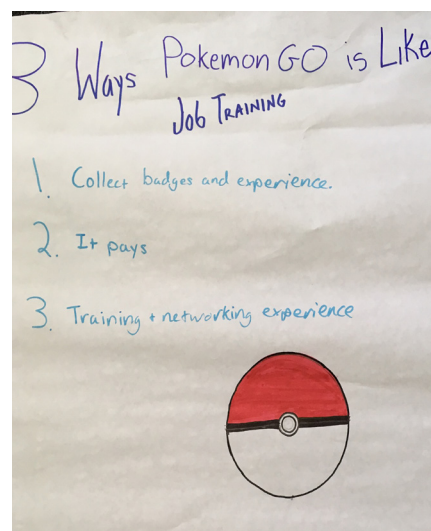
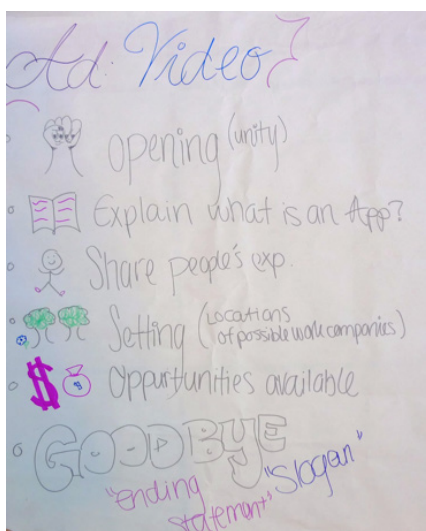
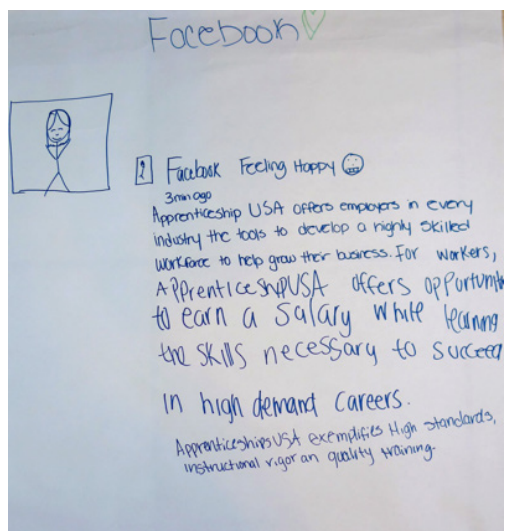


Figure 9 Three marketing strategies designed by high school students when asked how they'd promote apprenticeship programs – on the left, a sample targeted Facebook ad stressing salary and high-demand careers; in the middle, the outline of a YouTube video that explains what apprenticeships are, shares individual experiences, and highlights opportunities available and how much they pay; and on the right, an outline of how Pokemon GO could help promote apprenticeships.



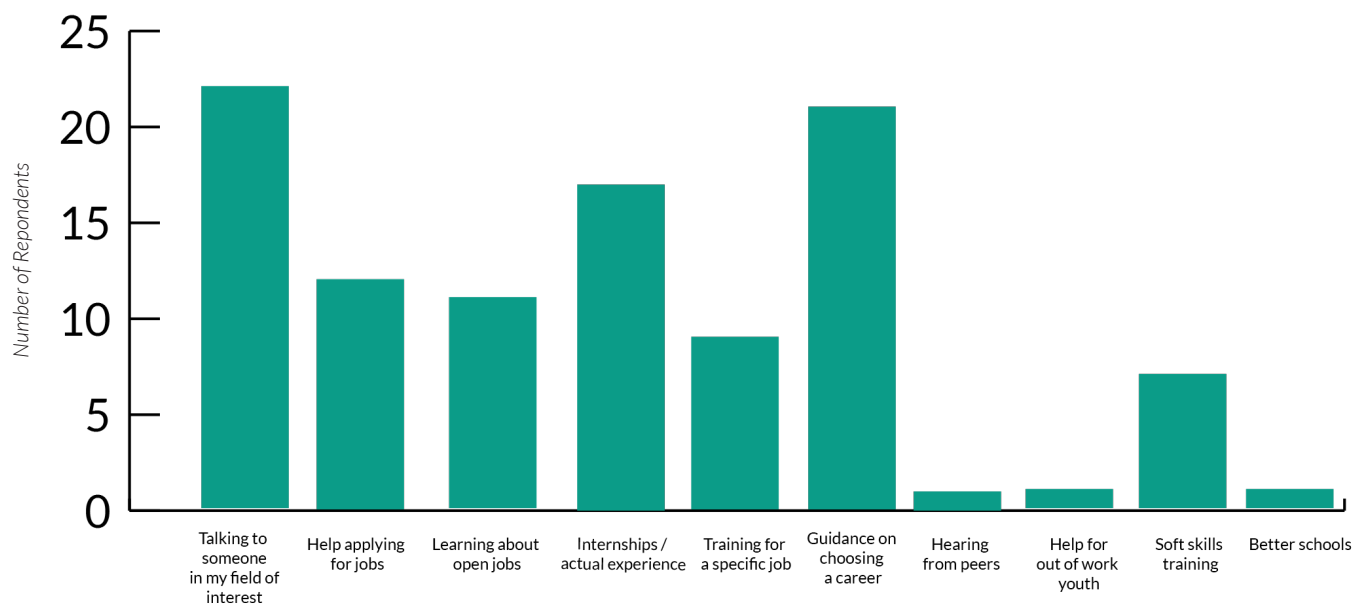
work with the current methods local schools already use in sharing jobs with students (online job boards, school social media presence), is also critical to meeting students in the spaces they already rely on.

3. Use Near-Peers Strategically for Outreach to New Communities

Finally, marketing for apprenticeship programs should rely heavily on current apprentices and recent apprenticeship participants as community ambassadors. When asked which opportunities to learn career skills were missing in their communities, the most frequently mentioned answer was the chance to talk to someone in their field of interest. See Figure 10. Participants mentioned “meeting different people who already have a job like yours,” “making connections with other people in the same field,” “meeting people who have the sorts of jobs you want,” and “talking to people who are already in [my field] and asking about their experiences,” as missing opportunities in their communities.

Figure 10

What opportunities to learn career skills
have you had poor access to?



With word of mouth serving as a particularly popular method for young adults to learn about new job opportunities, and strong interest expressed in talking to people in their fields of choice, evidence supports the idea that the opportunity to hear from young adults currently pursuing apprenticeships in fields of interest would be a particularly useful tactic for getting information about apprenticeship opportunities to young adults.

This reflects broader research on the importance of individual networks in securing employment for young adults. Social networks with higher numbers of contacts who are employed, unsurprisingly, have been shown to lead to higher job referral rates than networks with contacts who are not employed.⁵⁴ Family networks in particular are especially critical to youth labor market outcomes.⁵⁵ Lack of early workforce exposure can

make it particularly difficult for young adults to gain the exposure to the social networks needed to secure a quality job.⁵⁶

Businesses running apprenticeship programs should consider more deliberately building community outreach time into apprentices' job descriptions for interested participants. Priority should be placed whenever possible on sending apprentices to communities they have personal familiarity with, and where they're most likely to have strong understanding of community needs.

For example, if an apprenticeship program recruits heavily from a specific career-oriented high school, the program should consider recruiting one or two current participants in the apprenticeship program to serve as ambassadors to that school. In that capacity, current apprentices could join career fairs, speak to relevant classes, and build one-on-one relationships with students who express particular interest in the program.

Case Study: Designing a Millennial Health Apprenticeship for Chicago

Pulling it all together, here's how these recommendations could be used to build a Millennial-focused health apprenticeships program for Chicago, and to ensure that the program is a success with young adults, despite the prevalent misconceptions about apprenticeships among Millennial Chicagoans.

1. Expand pre-apprenticeship options: Recruit students from existing health-oriented training tracks at programs like Instituto Health Sciences Career Academy and the Chicago Public Schools Career and Technical Education programs that are currently focused on health careers. Either launch an official health pre-apprenticeship program, or provide more explicit shadowing opportunities for employers in health tracks, and expand existing successful programs that give high school students the chance to shadow health professionals.

2. Build cohorts: Recruiting from these high school programs also transitions neatly into developing cohorts of young apprentices. Young adults who knew they were participating before high school ended could have the chance to get to know each other ahead of time and start their apprenticeship programs with a strong pre-existing network in place.

3. Include degree attainment options: Build a partnership with Malcolm X Community College that would give participants in health apprenticeship programs the chance to learn from a college curriculum with a health focus. This would also provide opportunities to expand on the Colleges to Careers reinvention of the City Colleges system, by further aligning Malcolm X coursework with industry training needs.

4. Explain payment upfront in marketing: Design a marketing campaign that prioritizes information about exactly how much apprenticeships in health tracks pay, what long-term payments look like for young adults in Chicago, and how the apprenticeship program would be different from the sorts of health internships that many young adults are already familiar with.

5. Build an innovative digital marketing strategy: Promote this program extensively through youth-oriented social media channels with broad reach, in order to target young adult communities in Chicago. Work with schools and community organizations to find ways to highlight this content through their own pages, and create content that young adults could easily share with their peers.

6. Use Near-Peers as Ambassadors: Provide stipends to current students at Malcolm X Community College, or encourage current apprentices who participated in local CTE programs in high schools to serve as community ambassadors for the program. This will allow young adults to hear from credible and relatable sources, to ask specific questions, and potentially even to gain access to job shadowing opportunities.

Conclusion

Apprenticeship programs can help address many of the economic challenges facing today's Millennials. In an era of high tuition, high unemployment, and difficulty securing first jobs, apprenticeships are a meaningful pathway into gainful employment. Despite this, knowledge levels of apprenticeship programs remain surprisingly low among Millennials. Our initial analysis of young adults in Chicago suggests that creating programs that provide shadowing options early on, foster a sense of team, and don't preclude getting a postsecondary degree are all critical tactics. It also suggests that building a marketing campaign that takes advantage of how young adults currently learn about jobs, but that prioritizes correcting underlying misconceptions, is one critical way to help. Ultimately, as apprenticeship programs expand, it will be continually important to engage young adults directly in conversations about how to build and effectively promote the programs targeted at them and their peers.

Appendix I – Demographics of Survey Respondents

Race	Total Number of Respondents	Percentage of Respondents
African American	61	33%
API	25	13.50%
Caucasian	33	17.80%
Hispanic	65	35.10%
Native American	1	0.50%
Gender		
Female	102	55.40%
Male	82	44.60%
Education status		
High school	47	25.30%
2-year	66	35.50%
4-year	49	26.30%
Not in school	24	12.90%
Are you a parent?		
No	174	93.50%
Yes	12	6.50%
Age		
14-17	39	21.00%
18-24	79	42.50%
25-29	53	28.50%
30-34	11	5.90%
35+	4	2.10%

Appendix II – Breakdown of Survey Responses

Percentage of Respondents

Have you heard the term “apprenticeship” before?

No	35.20%
Yes	64.80%

Do people who participate in Registered Apprenticeships receive payment while participating?

Yes	33.70%
No	26.20%
Sometimes	40.10%

Are there currently apprenticeship opportunities in Illinois?

No	50%
Yes	50%

Do you feel there are good opportunities in your community for high school graduates who don’t wish to attend college to learn the skills needed to have a career that pays well?

Yes	29.60%
No	70.40%

If you went to college, do you feel your college prepared you well for your career or choice?

Extremely well	5.40%
Not well	32.40%
Somewhat well	62.20%

Have you personally had a mentor who has helped you gain job skills or make career decisions?

Yes	49.10%
No	50.90%
	100%

Number of Respondents

How would you define apprenticeship?

Good definition	20
Mentioned training	57
Internship	18
Partial credit	23
Mostly off	6
Completely off	8
Blank	67
Don't Know	1

Where do people in your community currently hear about jobs?

Word of mouth	49
Job postings	23
School	34
Community Events	29
Former employees	1
Employment agencies	7
Directly from employer	3
Online	57
Blank	57
I don't know	8

What opportunities does your community do a good job providing?

None	19
School-based workshops or classes	34
Employment agencies	5
Job fairs	14
Have to go to college	10
Specific job that includes training	13
First-hand experience	2
Other community orgs	7
Word of mouth	1
Don't know	18
Blank	82
Unclear/other	3

What factors do you think would make an employee stay for a long time?

Wages	63
People	38
Interesting work	27
Office culture	60
Management	22
Advancement opportunities	24
Until something better	2
Benefits	15
Feeling your work is important/valued	18
Job security	3
Work is easy	1
Blank	53
Don't know	2

Would young people be interested in apprenticeships?

Yes	15
Sometimes	7
No	8
Blank	6
Don't know	24

Would parents be pleased to know their children were participating in an apprenticeship program?

Yes	153
Depends	7
No	7
Blank	28
Don't know	5

What sorts of information would you like to see your community do a better job providing?

Info on specific jobs with availability	26
Resume training/interview prep/application help/soft skills	18
Selecting a career	10
Unclear	7
More actual job opportunities	8
Training on specific skills	6
Support for out of work individuals	3
First-hand experience/connecting personally with employers	6
More community resources	6
There's nothing	4
We're good/need nothing	4
Language accessibility	9
Don't know	10
Blank	3

What have you personally had access to?

Career counselor	26
Mentor	5
Support program	19
School generally	31
Job shadowing	3
Job fairs	6
None	15
Unclear	7
Peer learning	5
Don't know	4
Internship/training on the job	18
Parents	1
Blank	77

End Notes

1. Harry Holzer and Robert Lerman, *America's Forgotten Middle-Skill Jobs*, (Washington, DC: The Workforce Alliance, 2007), accessed July 18, 2016, <http://www.urban.org/sites/default/files/alfresco/publication-pdfs/411633-America-s-Forgotten-Middle-Skill-Jobs.PDF>.
2. Angela Hanks and Ethan Gurwitz, *How States are Expanding Apprenticeship*, (Washington, DC: Center for American Progress, 2016), accessed July 23, 2016, https://cdn.americanprogress.org/wp-content/uploads/2016/02/09100012/2State-Apprenticeship-brief_cr_x.pdf.
3. Robert Lerman, *Expanding Apprenticeship Opportunities in the United States* (Washington, DC: Brookings, 2014), accessed May 31, 2016, <http://www.brookings.edu/research/papers/2014/06/19-expanding-apprenticeship-opportunities-united-states-le-rman>.
4. Young Invincibles analysis of Bureau of Labor Statistics, Current Population Survey, May 2016 data.
5. Ibid.
6. National Skills Coalition, *United States' Forgotten Middle*, (Washington, DC: National Skills Coalition, 2014), accessed May 31, 2016, <http://www.nationalskillscoalition.org/resources/publications/file/middle-skill-fact-sheets-2014/NSC-United-States-MiddleSkillFS-2014.pdf>.
7. Ibid.
8. Accenture, Burning Glass Technologies, and Harvard Business School, *Bridge the Gap: Rebuilding America's Middle Skills*, (Cambridge, MA: Harvard Business School, 2014), accessed June 3, 2016, <http://www.hbs.edu/competitiveness/Documents/bridge-the-gap.pdf>.
9. Anthony Carnevale, Nicole Smith, and Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements Through 2018*, (Washington, DC: Georgetown Center for Education and the Workforce, 2010), 18, accessed May 31, 2016, <https://cew.georgetown.edu/wp-content/uploads/2014/12/full-report.pdf>.
10. Ibid, 8.
11. Ben Olinsky and Sarah Ayres, *Training for Success: A Policy to Expand Apprenticeships in the United States*, (Washington, DC: Center for American Progress, 2013), accessed May 31, 2016, <https://www.americanprogress.org/issues/labor/report/2013/12/02/79991/training-for-success-a-policy-to-expand-apprenticeships-in-the-united-states/> FIX.
12. Debbie Reed et al., *An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States* (Washington, DC: US Department of Labor, 2012), xvi, accessed May 30, 2016, http://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf.
13. OECD, *Off to a Good Start? Jobs for Youth*, (OECD Publishing, 2010), <http://www.oecd.org/els/offtoagoodstart-jobsforyouth.htm>.
14. Reed, *Cost-Benefit Analysis of Registered Apprenticeship*, xiv, 40.
15. Ed O'Keefe, "Cory Booker and Tim Scott Team Up for the First Time," *Washington Post*, April 9, 2014, accessed May 30, 2016, <https://www.washingtonpost.com/news/post-politics/wp/2014/04/09/cory-booker-tim-scott-teamup-for-the-first-time/>.
16. "Cantwell, Collins, Kaine, and Gillibrand Announce Apprenticeship Bill to Train the Next Generation of American Workers," US Senator Maria Cantwell, last updated September 9, 2015, <https://www.cantwell.senate.gov/news/press-releases/cantwell-collins-kaune-gillibrand-announce-apprenticeship-bill-to-train-the-next-generation-of-american-workers>.
17. "Pocan, Miller, Murray Introduce Bill to Invest in Apprenticeships, Increase Skilled Workers," US Representative Mark Pocan, last updated September 18, 2014, <https://pocan.house.gov/media-center/pressreleases/pocan-miller-murray-introduce-bill-to-invest-in-apprenticeships-increase>.
18. Katie Spiker, "Senators Introduce EARNS Act to Expand Apprenticeships" Skills Blog (blog), National Skills Coalition, May 18, 2016, <http://www.nationalskillscoalition.org/news/blog/senators-introduce-earns-act-to-expand-apprenticeship-programs>.
19. "United States Department of Labor: Grants," Department of Labor, accessed May 31, 2016, <https://www.dol.gov/featured/apprenticeship/grants>.
20. Ibid.
21. Uri Berliner, "In South Carolina, A Program That Makes Apprenticeships Work," NPR, November 6, 2014, <http://www.npr.org/2014/11/06/361136336/in-south-carolina-a-program-that-makes-apprenticeships-work>.
22. Ibid.
23. "Get Started Today," Apprenticeship Carolina, accessed June 16, 2016, <http://www.apprenticeshipcarolina.com/contact.html>.
24. "Youth Apprenticeship History," Wisconsin Department of Workforce Development, accessed May 31, 2016, <https://dwd.wisconsin.gov/youthapprenticeship/history.htm>.
25. Ibid.
26. National Skills Coalition, *Wisconsin's Forgotten Middle*, (Washington, DC: National Skills Coalition, 2014), accessed June 25, 2016, <http://www.nationalskillscoalition.org/resources/publications/file/middle-skill-fact-sheets-2014/NSC-Wisconsin-MiddleSkillFS-2014.pdf>.
27. National Skills Coalition, *United States' Forgotten Middle*, (Washington, DC: National Skills Coalition, 2014), accessed May 31, 2016, <http://www.nationalskillscoalition.org/resources/publications/file/middle-skill-fact-sheets-2014/NSC-United-States-MiddleSkillFS-2014.pdf>.
28. Michele Burr Michelson, Ana Paula Pereira, and Laura Fillingame, *A Follow-up Study on Youth Apprenticeship Employers in Wisconsin*, (Madison, WI: Center on Education and Work University of Wisconsin-Madison, 2003).
29. "Apprenticeship LEADERS," Department of Labor, accessed June 3, 2016, <https://www.dol.gov/apprenticeship/leaders.htm>.
30. Lerman, *Expanding Apprenticeship Opportunities*.
31. Ibid.
32. Gale MarksJarvis, "Illinois' Unemployment Rate is Among the Worst in the Nation," *Chicago Tribune*, March 14, 2016, <http://www.chicagotribune.com/business/ct-illinois-unemployment-rate-january-0315-biz-20160314-story.html>.
33. JPMorgan Chase & Co., *Growing Skills for a Growing Chicago*, (New York, NY: JPMorgan Chase, 2015), 5, accessed May 31, 2016, <https://www.jpmorgan->

chase.com/corporate/Corporate-Responsibility/document/54841-jp-mc-gap-chicago-aw3-v2-accessible.pdf.

34. Ellyn Fortino, "Report: Youth Unemployment High in Illinois, Chicago & Black Teens Hit Hardest," Progress Illinois, March 26, 2014, <http://www.progressillinois.com/quick-hits/content/2014/01/28/report-youth-unemployment-high-illinois-chicago-black-teens-hit-hardest>.
35. Teresa Cordova and Mathew Wilson, Lost: The Crisis of Jobless and Out of School Teens and Young Adults in Chicago, Illinois and the U.S., (Chicago, IL: UIC Great Cities Institute, 2016), v, accessed June 3, 2016, <https://greatcities.uic.edu/wp-content/uploads/2016/02/ASN-Report-v4.pdf>.
36. "Governor Bruce Rauner's State of the State Address," Office of the Governor, accessed June 3, 2016, <http://www3.illinois.gov/PressReleases/Show-PressRelease.cfm?SubjectID=2&RecNum=13213>.
37. "Apprenticeship," Illinois Department of Employment Security, accessed June 3, 2016, <http://www.ides.illinois.gov/Pages/Apprenticeship.aspx>.
38. U.S. Department of Labor, Using Registered Apprenticeship to Build and Fill Healthcare Career Paths, (Washington, DC: Department of Labor), accessed July 2, 2016, https://www.doleta.gov/oa/pdf/Apprenticeship_Build_Health-Care_Paths.pdf.
39. Growing Skills for a Growing Chicago, 4.
40. Ibid.
41. Ibid.
42. Ibid, 15.
43. Ibid, 15.
44. "United States Department of Labor: Pre-Apprenticeship," Department of Labor, accessed July 23, 2016, <https://www.doleta.gov/OA/preapprentice.cfm>.
45. Chris Bowyer "Do The Math: Opportunity Costs Multiply Tuition," Forbes, May 21, 2014, accessed June 3, 2016, <http://www.forbes.com/sites/thecollegebubble/2014/05/21/do-the-math-how-opportunity-costs-multiply-tuition/#6e67bcc47970>.
46. Ibid.
47. Median Weekly Earnings by Educational Attainment for 2014, (Washing-

ton, DC: Bureau of Labor Statistics, 2015), accessed July 18, 2016, <http://www.bls.gov/opub/ted/2015/median-weekly-earnings-by-education-gender-race-and-ethnicity-in-2014.htm>.

48. Illinois Consortium Awarded \$3.9 Million from the U.S. Department of Labor to Establish and Grow Illinois Apprenticeship Program over Next Five Years, (Chicago, IL: Illinois Apprenticeship Consortium, 2015), accessed June 3, 2016, http://www.gaccmidwest.org/fileadmin/ahk_chicago/Press_Releases/IAAC_Press_Release_Final.pdf.
49. Eleanor Drago-Severson, "The Power of a Cohort and of Collaborative Groups," Focus on Basics 5, Issue B (2001), accessed July 23, 2016, <http://www.ncsall.net/index.html?id=254.html>.
50. A Working Model for Student Success: The Tennessee Technology Centers, (Washington, DC: Complete College America, 2010) accessed July 23, 2016, [http://www.completecollege.org/docs/Tennessee%20Technology%20Centers-%20A%20Preliminary%20Case%20Study\(1\).pdf](http://www.completecollege.org/docs/Tennessee%20Technology%20Centers-%20A%20Preliminary%20Case%20Study(1).pdf).
51. Fulfilling the Promise: The Impact of Posse After 20 Years, (New York, NY: The Posse Foundation, 2012), accessed July 23, 2016, <https://www.possefoundation.org/m/alum-report-web.pdf>.
52. Ranita Jain with Maureen Conway and Vickie Choitz, Connecting Young Adults to Employment: Results from a National Survey of Service Providers, (Washington, DC: Workforce Strategies Initiative at the Aspen Institute, 2015), 24-25, accessed July 2, 2016, <http://www.aspenwsi.org/wordpress/wp-content/uploads/YAemploy.pdf>.
53. "Frequently Asked Questions," Department of Labor, accessed July 23, 2016, <https://www.dol.gov/featured/apprenticeship/faqs>.
54. Katherine O'Regan and John Quigley, Family Networks and Youth Access to Jobs, Journal of Urban Economics 34 (2003), 230, accessed July 26, 2016, <http://urbanpolicy.berkeley.edu/pdf/OQinJUE93.pdf>.
55. Ibid.
56. Robert Ivry and Fred Doolittle, Improving the Economic and Life Outcomes of At-Risk Youth, (Washington, DC: MRDC, 2003), 8-9, accessed July 26, 2016, http://www.mdrc.org/sites/default/files/full_403.pdf.

Image Sources

Cover Image

57. Getty Images. <http://bit.ly/2aAg7kQ>

Apprenticeship Stereotypes

58. Disney's Fantasia. Digital Image. <http://bit.ly/2aTuzGm>
59. NBC's The Apprentice. Digital Image. <http://bit.ly/2axBu8J>
60. Medieval blacksmith. Digital Image. <http://bit.ly/2awkrzN>

Apprenticeship Ads

61. Skills Solutions. <http://www.cq2.co.uk/portfolio/skills-solutions-like-apprenticeships/>
62. DGA National Apprenticeships. <https://www.dga-national.org/>
63. U.S. Department of Labor. <https://www.dol.gov/featured/apprenticeship/shareables>