RESEARCH REPORT

Implementing Financial Education in Youth Apprenticeship Programs

An Exploratory Study

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Implementing Financial Education in Youth Apprenticeship Programs

In 21st-century marketplaces for goods, services, and labor, the average worker faces a dizzying array of choices, from innovative financial instruments to more accessible credit products. Information on the costs and benefits of these choices is widely available, yet many workers arrive in the marketplace with a serious dearth of the financial knowledge required to convert that information into understanding and sound decisionmaking. Many people struggle to interpret data that should, in theory, be foundational, such as the rate of compound interest on a loan or the term of a mortgage. Indeed research shows that individuals who are “more financially savvy” are more likely to save, invest, plan for retirement, and accumulate more wealth and are less likely to have credit card debt or use high-cost borrowing methods (Mitchell and Lusardi 2015).

A 2013 survey commissioned by the National Foundation for Credit Counseling found that 40 percent of adults give themselves a grade of C, D, or F on their knowledge of personal finance (Harris Interactive Inc. and Public Relations Research 2013.). The Financial Industry Regulatory Authority found in 2013 that the average American answered just 2.88 questions correctly on a 5-question test of concepts such as compound interest, inflation, and investment diversification (FINRA Investor Education Foundation 2013). When so many Americans lack the skills they need to navigate the world of personal finance, they are left liable to make errors and even fall for scams that endanger their individual prosperity and that of the overall economy.

Some studies show that financial education can have a measurable impact if properly targeted to individuals facing specific financial decisions. A promising venue for such targeted training is youth apprenticeship, an increasingly popular high school offering that offers on-the-job and classroom learning. Because youth apprentices are exposed to the daily challenges of managing their own pocketbook—and often the challenges of operating a business—financial knowledge is particularly salient for them.

In this paper, we report our findings from over a dozen interviews with youth apprenticeship coordinators in Wisconsin and Georgia. Although an integrated financial education component is the exception in youth apprenticeship training, we find broad support from our interviewees for the idea that high school students in youth apprenticeships both require and would be receptive to lessons on how to handle their finances.
Already, several financial education programs exist for high school students, employees, and other populations. These programs have achieved varying degrees of success. The Financial Literacy and Education Commission, the Federal Reserve, and the US Department of the Treasury’s Office of Financial Education all contribute to or coordinate programs and materials that teach consumers about bank accounts, consumer credit, mortgages, leasing vehicles, and personal finance. A number of private entities, including Visa, the National Community Reinvestment Coalition, and the Jump$tart Coalition, offer programs that work to teach consumers financial knowledge (Lerman and Bell 2006).

States vary widely in the financial education they provide to high school students. The 2015 National Report Card on State Efforts to Improve Financial Literacy in High Schools highlights which states have effective laws and mandates to ensure high-quality financial education (Pelletier 2015). Some states require a full course in personal finance as a graduation requirement, and others mandate personal finance as part of a required course. On the other end of the spectrum, several states have no requirement at all for personal finance; some mention personal finance in state standards but have no delivery mechanisms. From this perspective, only 5 states meet the highest standard, and 15 states have minimal or no state policies on personal finance. Moreover, teachers often are underprepared to teach financial education. Georgia is the only state to require an end-of-course state assessment of economics and required personal finance topics.

The importance of financial education in school is not lost on parents. According to a national 2011 study by Visa, 85 percent of American parents support financial education courses as a graduation requirement.1

State Challenges and the Promise of Youth Apprenticeship

Studies have identified several interventions that effectively increase financial knowledge or change behavior. Some of these programs may succeed by pairing financial lessons with other programs, such as homeownership counseling or welfare programs, or by placing lessons in the context of a workplace, where the lessons may be more directly relevant and memorable. This is called the “teachable moment” hypothesis. As Fernandes, Lynch, and Netemeyer (2014) write, “Knowledge may be better conveyed via ‘just-in-time’ financial education tied to a particular decision, enhancing perceived relevance and minimizing forgetting.”
One teachable moment is the transition from high school to the workforce. At this time, students begin earning their own money and must decide how to spend or save what they earn. Schools, parents, employers and other social institutions have an opportunity to teach students about the tools they will need to make sound decisions with their money. High schools provide a captive audience and a ready-made infrastructure by which to reach the vast majority of American youth.

Evidence about the long-term effects of financial education to high school students is mixed but suggests promising opportunities. As research by Bernheim and colleagues (2001) shows, students who receive financial education sometimes make positive changes in their financial behavior. These effects may even appear years after the educational intervention and are consistent with evidence from other studies. In any case, many variables influence the effectiveness of financial education, from cognitive skills and knowledge of the economy to psychological and environmental factors, not to mention the quality of instruction and accuracy of information.

One strategy is to fold financial education into existing high school career and technical training, especially programs involving working for pay. Learning financial skills may carry a more tangible meaning for students in their first jobs. A promising form of career training is youth apprenticeship (YA), in which high school juniors and seniors work part time, earn wages, engage in work-based learning in depth to gain skills in a particular occupation, and take classes directly relevant to their occupational field.

In countries such as Austria, Germany, and Switzerland, youth apprenticeship has demonstrated enormous success in a wide range of industries, from health care and banking to bricklaying and advanced manufacturing. A few US states, notably Wisconsin, Georgia, have committed resources to building YA programs.

As students learn firsthand about life on the job, they could also be learning how to effectively manage their financial futures. To ensure that financial lessons and behaviors stick with apprentices, financial education programs should focus on those elements most important for new, young employees, such as managing earnings, starting and using bank accounts, taxes, borrowing and interest rates, compound interest, and the importance of saving for down payments and short-term contingencies. Students should be able to distinguish between consumption and investments, including investments in consumer durables, an automobile, a home, and their own human capital. All of these decisions will affect their economic status across their life cycle. Lessons could also address the potential for entrepreneurship and the skills associated with starting a business.
The purposes of this project are to (1) learn about the extent of financial education and entrepreneurship training in existing American YA programs and (2) consider the desirability and feasibility of expanding financial education and entrepreneurship in YA programs.

The next section provides a brief review of existing studies and a discussion of state and local financial education and entrepreneurship training for all high school students. We then describe the methodology used to learn about financial education and entrepreneurship training in YA programs. The third section examines findings from our interviews concerning any special links between financial education and the experiences of youth apprentices. We conclude with recommendations for testing models of financial education and entrepreneurship training for youth apprentices and other working high school students.

Further Findings from Studies of Financial Education Programs

Researchers have produced varied findings on the effects of financial education in high schools on improving financial knowledge. However, studies indicate that financial education does increase thrift and encourage saving in the short-term, leading to expected significant increases in net worth over subsequent decades (Lerman and Bell 2006). Financial knowledge measurement experts Olivia Mitchell and Annamaria Lusardi (2015) similarly conclude that while evaluation is difficult, “the evidence is supportive of the importance of financial education.”

As mentioned above, Bernheim and colleagues (2001) find that students whose high schools are mandated to teach financial knowledge save at rates 1.5 percentage points higher than other students. A quasi-experimental study by Urban and colleagues (2016) finds that high school students in states implementing new financial education mandates improved their credit scores by at least 15 points and reduced their rates of credit delinquency relative to students in comparable states where financial education policy saw no change.

A study by Boyce and Danes (1999) finds that students who take part in the High School Financial Planning Program self-report saving more money than those who do not. Finally, Mandell (2005) finds that taking a course in personal finance increases levels of self-reported “thriftiness” even if no significant gains are made in financial knowledge.
Mandell (2006) also tests the theory of teachable moments to see if financial education is more effective when taught to students dealing with a related issue in their financial lives. He finds that relevant life experience, such as having a credit card or a checking account, does not lead to course-related improvements in financial knowledge. He concludes that, at least for high school students, “relevance by itself is not the answer” to improving financial knowledge and/or behavior. However, the life experiences discussed in the study might not be as salient as a first job, which, if true, would imply the study underestimates the usefulness of teachable moments. The study may also be flawed because it does not address the heterogeneous quality of financial education courses and it relies on imprecise tests of financial knowledge.

Research on more targeted financial education programs does not test the teachable moment theory per se, but does suggest that individuals change their behavior when they receive a financial education course directly relevant to a concurrent financial experience. Hirad and Zorn (2001) find that mortgage counseling for homebuyers reduces the incidence of 60-day delinquency. Elliehausen, Lundquist, and Staten (2003) find that credit counseling for borrowers improved creditworthiness and reduced delinquency. Finally, Schreiner, Clancy, and Sherraden (2002) find that participants provided with savings accounts and incentives to save as part of the American Dream Demonstration were more likely to contribute more to their accounts if they had taken a financial education course.

Methodology for Examining Financial Education in the Context of Youth Apprenticeships

Only a few states, most notably Georgia and Wisconsin, operate significant YA programs that provide opportunities to youth ages 16 to 19. State funding pays for coordinators in local school systems and sometimes for required courses not offered in high schools. In Georgia, 143 of 195 school systems participate in the apprenticeship program, serving over 6,500 students. These apprentices engage in at least 2,000 hours of work-based learning and 144 hours of related classroom instruction. Industry sectors offering apprenticeships range from business, marketing, and information management to health and human services and technology and engineering.

The Wisconsin program, which reaches roughly 3,000 high school juniors and seniors, includes one- and two-year options requiring 450 to 900 hours in work-based learning and two to four related occupational courses. The program draws on industry skill standards and awards completers with a certificate of occupational proficiency in the relevant field. Some students also receive technical college
academic credit. Wisconsin YA programs include agriculture and natural resources, architecture and construction, finance, health sciences, hospitality, information technology, biotechnology, engineering, transportation, and manufacturing.

This study focuses on these two states to examine existing practice regarding financial education within youth apprenticeships. We conducted structured telephone interviews with 15 staff members working in YA programs in Wisconsin and Georgia. Interviewees included frontline staff who spend most of their time directly teaching and coaching students as well as coordinators who operate at the district or consortia of districts level. We also spoke with the directors of both programs.

Interviews ran on average between 45 minutes and one hour, and our team transcribed the interviews in real time. As a result, we do not present any direct quotations in this report. Rather, we paraphrase ideas and, in some cases, place statements in quotation marks that match the wording used by interviewees as closely as possible. A full list of interviewees appears in appendix A.

Georgia ranks high in terms of the robustness of its state mandates for personal finance education. High school students are required to take a half-year course in economics to graduate, and 6 of the 22 standards in this course relate to personal finance. As noted above, Georgia requires statewide end-of-course assessments on all core high school courses, including economics. About one in four of the assessment questions deal with personal finance. These requirements earned Georgia a “B” on Champlain College’s 2015 national report card on financial literacy education in high schools (Pelletier 2015).

According to Dwayne Hobbs, head of Georgia’s YA program, employability skills are 1 of the 24 standards apprentices must meet. Employability skills incorporate learning how to manage finances, set up a bank account, and balance a checkbook. Schools select their own curricula to teach these skills.

By contrast, Wisconsin received an “F” in the same report for having “virtually no requirements for personal finance education in high school” (Pelletier 2015). While the Wisconsin Department of Public Instruction provides Model Academic Standards for Personal Financial Literacy, the state does not require this content be taught in schools. Forty-four percent of Wisconsin school districts do require a personal finance course for graduation, and 74 percent include such content in other courses, according to a 2013 report from the Wisconsin Department of Financial Institutions.²

Several interviewees said Wisconsin school districts lack sufficient funding for financial education. One interviewee said that small schools in particular struggle to implement all the courses they’d like to.
A state mandate for financial education, as well as funding to make it a reality, is one way Wisconsin could ensure that its high schools prioritize this subject.

Results of Interviews Concerning Financial Education in the Context of Apprenticeship

Even though many high schools in Wisconsin do not have a financial education requirement, those that do, as well as those that require training on other workplace skills, offer lessons for policymakers who seek to prepare students for the workforce. Georgia’s financial education requirements are also instructive, although most interviewees for this project from Georgia were less familiar with them, as the courses are often taught by subject area teachers and not youth apprenticeship staff. In both states, a picture emerges of the sort of general knowledge and skills that youth apprenticeship staff strive to develop in their students. However, too many schools continue to send apprentices into the workforce without a strong understanding of the financial tools they will use throughout their lives.

When asked about financial education, many youth apprenticeship staff in Wisconsin said that if these topics were being addressed, it was only in one-on-one conversations initiated by apprentices. Teachers in both states reported making themselves available for such conversations with youth apprentices. YA coordinators also reported meeting with apprentices, albeit usually once a month or less. Some coordinators, such as Donna Andrews in Georgia, formalize workplace skills training—mostly soft skills, as discussed in the next section—in these monthly meetings, but the level of detail is inevitably less than what a full financial education semester course could offer.

According to one interviewee from Wisconsin, whose district does not have a financial education class, the primary way staff disseminate financial knowledge is through informal conversations or asides, which the interviewee called “touch points.” The more touch points, the more knowledge can be passed along and the more likely it is to be retained. A group of interviewees who coordinate youth apprenticeships in Wisconsin’s North Central region similarly said they believe students are getting the financial education they need from their designated coordinators. As a result, the interviewees said, they had not focused much on additional lessons or a more formalized curriculum. Interviewees in Georgia reported similar engagements with apprentices about financial knowledge, although students are required to learn this material in their other courses.
Examples of Curricular Programs

Heidi Radel teaches two semester courses: one on personal finance and one on employability skills. Radel said her efforts to fund her personal finance course succeeded only because new district leadership shared her belief in the importance of these topics. Radel stressed that she tries to make the money management concepts in her personal finance course as relatable as possible, often drawing on her own life experiences to explain implications to her students. This is a theme we will return to later in this report.

As a part of her employability skills course, much of which she designed herself, Radel takes her students to a day-long program called Real Life, a financial education forum offered by Junior Achievement. The program is a set of day-in-the-life role-playing activities, where students must navigate different scenarios, such as credit card debt, paying bills, shopping for a vehicle, or going through a divorce, and must handle the implications for their imaginary budgets, credit scores, and taxes. Radel said the event engages students so much that “we have had kids in tears” as they realize some of the challenges life will present.

Several others in Wisconsin and Georgia have some involvement with other products offered by Junior Achievement. Another role-playing event similar to Real Life is Reality Store, offered by the Wisconsin Institute of Certified Public Accountants.

One YA coordinator in Wisconsin said sophomores in his district are required to take a course called Planning Your Future, which touches on financial knowledge among other topics. The resource for this course, Succeeding in the World of Work, includes sections on money management, saving, credit, insurance, taxes, and even entrepreneurship. The course also includes a computer-based money management simulation from the Banzai financial education curriculum. The coordinator said he hopes the state of Wisconsin will eventually require a course more fully devoted to financial education.

A 2011 report from Mancl, Evenson, and Walker provides an overview of other financial education programs offered in the state of Wisconsin. One program that may be relevant to YA students is an online set of lessons called Investor Education in Your Workplace, also known as RP3. Offered by the Wisconsin Credit Union League, this curriculum takes eight hours on average and covers investment strategies, financial assets, and planning for education and retirement expenses. An analysis of the program’s effects finds that it increased IRA contributions by 50 percent. Another study by Bayer, Bernheim, and Scholz (1996) finds that retirement planning seminars offered by employers increase participation in voluntary savings plans and the amount employees save.
Employability “Soft” Skills in the Context of Apprenticeship

Teaching Soft Skills

Most interviewees, especially those whose districts lacked a financial education curriculum, still spoke about the training in employability “soft” skills that youth apprentices receive before and during their apprenticeship. There are several reasons students may not already practice the effective habits, such as interpersonal skills, emotion management, etiquette, technological literacy, and a willingness to learn, that fall into this category. Although some students may be ready for the workplace from day one, others may need extra help and encouragement. While school districts varied in their students’ levels of soft skills preparedness and in their often ad hoc soft skills teaching strategies, virtually all interviewees expressed some sensitivity to the need for soft skills training. Whether in a full-semester course or in semiregular meetings with apprenticeship coordinators, nearly all youth apprentices receive some form of soft skills training even if they do not receive financial education.

Tom Martin, a YA coordinator in Wisconsin, said, “Financial education is one of myriad priorities, along with other interpersonal, technological, and work-based learning skills. The aim is to really make sure that students are as career- and college-ready as possible, which is language developed by our state superintendent.”

Soft skills that may be new to students but may still be taught in a classroom include writing and sending emails, handling an office phone, cold calling in a professional manner, completing paperwork such as tax and emergency contact forms, writing a resume, and filling out a time card. Soft skills also include more general habits such as punctuality, professional comportment and attire, and respectful communication skills like eye contact and handshakes. Having the confidence to speak up to adult bosses and colleagues is another important soft skill, as is knowing when not to talk or when to let another person speak. One YA coordinator in Wisconsin cited emotional maturity and the ability to communicate with adults as two areas where students struggle most.

There are several ways an effective teacher can promote social norms in the classroom to help students practice soft skills and set students’ expectations for the workplace so that they begin to see the importance of living out these habits. A teacher can begin by modeling desired soft skills in their interactions with students. Several interviewees reported that simply raising expectations for student-to-teacher and student-to-student interactions before the start of an apprenticeship caused students to
respond by practicing more effective habits. Some interviewees said soft skills such as time
management may not fully develop until students arrive on the job. Christina Hinz, a YA and work-
based learning coordinator in Georgia, said, “It’s more beneficial than anything else, the opportunity to
interact in an environment with bosses and adults.”

In the classroom, interviewees use soft skills tools such as Georgia’s Best, a 10-module curriculum
developed by the Georgia Department of Labor, and a book called First-Job Survival Guide: How to Thrive
and Advance in Your New Career, recommended by interviewee and YA coordinator Tim Vinson. Donna
Andrews recommended staging an in-class banquet designed to teach etiquette and social graces that
may later prove useful in business meetings or sales pitches.

Some behavior is more powerfully taught by drawing on outside models and programs. For
example, representatives of participating employers can hold mock interviews to help students step
into the role of interviewee. One teacher observed that youth apprentices who also participated in
ROTC had particularly well-developed soft skills. With the caveat that this may be an effect of self-
selection, it may be instructive to investigate some of the habits and lessons employed by ROTC
instructors.

Role Models and Financial Skills

Because students are powerfully affected by behaviors they observe in their role models, teachers who
spend time in the classroom discussing and demonstrating their own behavior may prove better
transmitters of financial skills than those who treat financial skills as a solely academic or theoretical
exercise. Still, interviewees universally agreed that the best teachers of sound financial habits are often
family members.

Interviews with apprenticeship staff corroborated the importance of learning about finances at
home but also suggested that a number of students enter these programs lacking the skills and
knowledge to succeed. Heidi Radel said, “Almost everything in life is modeled. It’s just modeled. I can tell
them to save but they may blow it on a movie or going into Madison unless someone close to them has
shown them how to behave.”

On the subject of saving, a high school counselor in Wisconsin also emphasized the role of parents
in modeling habits. “I think it depends on the family’s values as well,” the counselor said. “When I had
young kids, I required them to save 75 percent of what they made, and that worked out really well. I
mean, if they have parents living check to check, where are they going to learn that?” The counselor said that she supports mandatory financial education—although her school does not—to rectify this inequality in financial skills.

Family is also likely to be a student’s only exposure to paying taxes. The counselor said it may have been years since any student asked her about taxes and indicated that nearly all of her school’s youth apprentices get parental assistance to file taxes. Most YA coordinators interviewed said they too rarely talk with students about taxes, although some implied that the students may be able to ask them for help. The lack of attention given to taxes is striking considering that students are subject to social security taxes and may qualify for some benefit under the earned income credit.

Stronger parent engagement is a goal shared by many schools and appears to be an important element of enrollment and success in a youth apprenticeship program. Unfortunately, relying on families to teach financial knowledge may leave out half of the student population. A 2011 study by Visa found that only about 50 percent of Americans learned about personal finance from their parents or another relative.3 For a YA program to be inclusive, it must acknowledge those students who enter with little to no financial knowledge and find ways to provide alternative personal finance role models to students who may not have one outside the classroom. Later in this report, we discuss the possibility of YA staff spending additional time as mentors to current and potential youth apprentices.

Human Capital Planning

Decisions about careers and career preparation, including college, apprenticeship, and military service, are among the most critical decisions individuals make regarding their long-term financial trajectory, not to mention their long-term happiness and personal identity. Staff interviewed for this report said most youth apprentices receive enough information and counseling to make informed decisions about which apprenticeships to apply for and whether to pursue a career, a technical education, or a college degree after high school.

However, more work can be done to help graduating youth apprentices evaluate the broad range of opportunities available to them. Indeed, according to Christina Hinz, only 42 percent of her youth apprentices remain in their career track after high school. Given that the typical student at a four-year college may change majors several times, and may not decide on an occupation until their early twenties, it is not surprising that many apprentices do not stick with the choices they make in high school.
Tom Martin wants to see apprenticeship become something akin to a career “test drive,” saying, “It must be about finding what you want to do.” A career test drive is something that many students would benefit from. The more information students receive about possible career paths and the more opportunities they have to try them out, the more likely they are to find a career that matches their skills and interests. A challenge in making this ideal a reality in apprenticeship is that by accelerating the timeline for job training, apprenticeship in some ways reduces the amount of time a student has to make decisions about their career. A youth apprentice’s path often begins in the first years of high school, when success in an occupational course such as accounting, engine repair, or hospitality leads a teacher to recommend the student for an apprenticeship. By their senior year, youth apprentices are likely weighing the costs and benefits of a technical degree in their field.

This accelerated track works well for some students, especially those lucky enough to find a career path they are satisfied with or those with the economic stability and presence of mind to change course if they find it unsatisfactory. But this track may pressure others to commit to a choice before they fully know themselves or what they are capable of. Additionally, youth apprentices often have financial incentives stacked toward remaining with their employer, which may include full or partial funding to attend technical school. It may be hard for youth apprentices to choose a different path with deferred payoffs, such as borrowing money for a degree in a more lucrative field. One YA coordinator in Wisconsin said they have noticed their youth apprentices sometimes pick occupations based on the starting wage rather than lifetime earnings.

As students grow older, they are presented with more information and opportunities to consider. If staff can engage youth apprentices to actively think about their choices and opportunities throughout high school, the more likely youth are to be satisfied by their test drive.

A challenge for YA staff trying to have more structured conversations about human capital planning is the large number of people who influence a student’s choices during their four years in high school. A lot can change in a student’s mind during this time, especially over the duration of an apprenticeship, and students may not have anyone to talk to who understands the evolution of their goals over time. Counselors are assigned to the same students all four years, but they may not have full information about available apprenticeships and YA coordinators generally do not take part in counseling meetings. Subject area teachers who recommend students for apprenticeships may lose touch with their students once they no longer see them in class and they may not have the ability to objectively discuss occupations they do not teach.
Heidi Radel incorporates big-picture career path exploration into her employability skills course. Radel hopes her students "are learning about themselves and learning about careers they might be successful in." Her students start by taking a traditional occupational aptitude assessment and then write a reflection on their goals, skills, and identities. (Most interviewees for this report said that youth apprentices are required to explain their career goals as part of the apprenticeship application.) Towards the end of the course, Radel arranges a mock interview for each student with a local business leader that the student has identified in their occupation of interest. A similar program in Milwaukee, Wisconsin, My Life! My Plan!, sets up single-day workshops involving career planning and mock interviews. These programs foster the kind of thoughtful conversations students need to have with themselves and with their teachers, but the brief experiences may not provide much lasting advice. Ideally, youth apprentices should reflect on their apprenticeship both during and after it, especially if the apprenticeship lasts longer than a year, as a student’s goals, skills, and identities can shift with time and experience.

Another challenge is gathering sufficient information youth apprentices can use to make employment decisions. One interviewee said he uses labor market data from the Georgia Department of Workforce Development to help inform conversations with his youth apprentices. But by and large, interviewees said they do not often talk about the costs and benefits of different types of college degrees beyond technical education, and many were not prepared to discuss college loan rates and financial aid packages with their students.

Ultimately, staff can only do so much to help students make personal decisions on what career to pursue and how much to spend training for it. School districts can help by providing counselors, teachers, and youth apprenticeship staff the tools to have more thorough conversations about human capital planning; by better coordinating or consolidating these conversations students have with different staff; and by encouraging students to remain open to the possibility of drastic career U-turns. These measures can help youth apprentices make decisions from a long-term perspective. After all, their future satisfaction and the overall economy’s productivity require that high school graduates be well-matched to their careers.
Entrepreneurship Training in the Context of Youth Apprenticeship

If the goal of youth apprenticeship is to put high school graduates on track for fulfilling and productive employment, the holy grail of youth apprenticeship is when former apprentices go on to employ others. In the United States, small businesses create the majority of private-sector jobs and help drive innovation that keeps the country’s economy strong.4

YA staff we interviewed indicated that apprentices often develop a sense of purpose and work ethic through their apprenticeships, factors that can inspire them to work toward business ownership. Apprenticeships also offer meaningful work experience for driven students with existing goals of business ownership. However, youth apprenticeship programs generally do not focus on teaching the skills required for entrepreneurship. Though several interviewees knew of former apprentices who had started their own businesses, these were anecdotal exceptions where individuals had preexisting passions or ready sources of credit. For instance, Tom Martin told of an agricultural apprentice who took out loans to purchase “hundreds of thousands of dollars of custom harvest equipment” and started his own farm. In our research, these anecdotes were promising but rare, so it is difficult to determine general trends or patterns.

Many schools offer business management courses or courses on economics or finance that touch on business management. The resource for the Planning Your Future course required in Wisconsin’s South Shore Consortium of schools contains a section on entrepreneurship. Multiple interviewees also mentioned “school stores” where students can work part-time and learn how to run a very small shop.

More promising for the development of young entrepreneurs are extracurricular clubs in which participants brainstorm business ideas and design thorough operating plans under the supervision of experienced mentors. Such programs are targeted more to students with preexisting interest in entrepreneurship and are more hands-on than classroom lessons. The mentorship component seems uniquely useful for encouraging students who may be interested in diverse paths to business ownership. In Georgia’s Henry County, where Christina Hinz is the YA coordinator, schools offer a new entrepreneurship program for youth apprentices and other work-based learning students: INC, short for incubator lab. The program pairs mentors selected from the local business community by the Chamber of Commerce with students to individually develop business pitches.

An encouraging sign that entrepreneurship can be taught comes from Finland, which introduced entrepreneurship training for apprentices in 2000. By 2009, participation in apprenticeship-based
entrepreneurship training increased tenfold to 5,400 people, according to Miettinen and Viinisalo (2011). Under this model, apprentices work for an existing small business, sometimes in a different field than their own, and learn small business management skills through a combination of observation and reflection in addition to learning by doing. There tends to be no formal classroom component. Apprentices tend to be adults—a 2008 survey placed the average age at 43 years old—and about a third already have a tertiary degree.

Accessing Financial Services and Apprenticeship Worksites

Youth apprentices face some unique challenges compared to other high school students. Specifically, combining work with schooling requires that apprentices and others in paid work-based learning open a bank account and secure an independent means of transportation.

For many students, the most fundamental financial tool is a bank account. While familiarity with banking and saving should start at home, growing up in an unbanked household may dramatically set back a student’s financial skills for life. Among households with members younger than 24, approximately 17 percent are unbanked, defined as not having any account at an insured financial institution (Burhouse et al. 2014).

Opening a bank account may be a part of the YA experience. Many YA employers require direct deposit, thereby mandating the opening of a bank account. However, most interviewees were unable to benchmark a specific percentage of apprentices with bank accounts and appeared to view this as something apprentices should handle on their own.

Several interviewees said they sometimes sit down with unbanked apprentices and walk them through a bank account application, even going so far as calling a bank themselves to set up an appointment for the student. Heidi Radel said, “I have helped some kids set up a bank account. If the student doesn’t have a bank account, their parents probably don’t have one either.” Radel said she does not remain involved beyond initial setup of the account. Another interviewee reported personally driving an unbanked apprentice to a bank and introducing him to the staff. While this may seem like the responsibility of a parent and not an educator, the material benefit of simply having a bank account likely outweighs a day’s worth of classroom learning.
Some financial education classes invite bank staff to speak to students, but it may be more helpful to bring students to the bank, whether as a large field trip or in small groups. Here, again, is a teachable moment for soft skills, and classes could hold mock conversations as a way to prepare for visiting a bank. While going through the motions of creating a bank account, students could role-play conversations about bigger financial steps such as applying for a credit card, an auto loan, or setting up a retirement or brokerage account. Teachers could pass along information about bank account fees, including those that may not kick in right away, and help students pick an affordable option. Attention to fees may be particularly important if students wish to apply for debit cards.

Most interviewees said that lack of transportation to the workplace can dash students’ hopes of participating and succeeding in apprenticeship. Getting students to high school can be a complex and expensive logistical task on its own. In a YA situation, it is generally not feasible for the school to provide vehicles for students to go to work or to various dispersed off-site training facilities, especially if their schedule requires they go home or have a meal at any point. For those without a car or access to public transportation, apprenticeships are nearly inaccessible.

Tim Vinson added that lack of transportation can be a psychological barrier. Even if students can theoretically take the bus, it requires a lot of effort, “especially when your friends are hanging out,” he said. Some schools provide funds for youth apprentices to ride public buses, where available. Such funding should extend to pay for gas money for students who drive and could be means-tested. In some circumstances, the only solution may be carpooling, which should be encouraged and could be coordinated through the school. It may also be the case that transportation to and from an apprenticeship is simply infeasible in regions with extremely long or difficult commutes. In any case, transportation must be part of the discussion around YA.

Overall Picture of Financial and Entrepreneurship Education in YA Programs

The perspectives of coordinators in Georgia and Wisconsin reinforce our theoretical notions about the value of building financial education and entrepreneurship concepts into youth apprenticeship. Nearly all coordinators cited experiences of youth apprentices related to financial education and career planning. At the same time, they revealed few formal processes for increasing the financial knowledge and capabilities of apprentices or encouraging sound financial practices. Although Georgia includes a
number of relevant financial activities in its list of employability skills for apprentices to master, the modes of instruction and of testing for results were unclear.

Still, coordinators said apprentices receive significant informal help to address key financial issues. Some issues relate to concrete financial actions, like opening a bank account. Other issues concern the direct experience of apprentices with their specific career paths. Apprenticeship was used as a vehicle to explore the broader costs and benefits of various career pathways, but usually only informally.

Our interviews revealed a very limited amount of entrepreneurship education. A few coordinators related anecdotes of youth apprenticeship stimulating a young person to start a business, but coordinators had little time or inclination to emphasize entrepreneurship.

Finally, this initial study of youth apprenticeship and financial education has important limitations. The interviews did not extend to youth apprentices themselves or their employers. We expect that adult mentors in the workplace have some influence on the maturity and employability of apprentices, a belief confirmed by several coordinators we spoke to. In future work, we plan to study the effect of workplace mentors, supervisors, and coworkers on the financial knowledge of apprentices.

What We and Counselors Recommend

Short Financial Education Courses and a Trained Financial Education Teacher

When asked how to improve financial education for youth apprentices, interviewees’ responses reflected their existing programs and needs. All cited a lack of resources—time, staff, and money—to allocate to financial education. Some interviewees thought that a mandatory financial education component would be worthwhile, and we agree that this could have significant positive effects, such as the increase in saving discussed earlier. One YA coordinator in Wisconsin lamented that the state increased the number of years of required math education without adding a personal finance requirement.

A success story comes from Heidi Radel, a YA coordinator in southwest Wisconsin, who pushed for years for a mandatory personal finance course. She said it took a new superintendent, who came to the district open to the idea and agreed that “personal finance was key,” to realize her goal. Radel acknowledged the opportunity cost of implementing this requirement, but said, “Personal finance
matters more in education than many pieces of academic knowledge which you don’t use in your daily life. If you’re interested in the War of 1812, you can look that up in your free time, but death and taxes are certain in life. You’ve gotta be prepared for it.”

The experience and competence of a financial education teacher, as well as their teaching techniques, naturally affect how much and how well students learn. A strong example of a train-the-trainer program for those teaching financial education for the first time is the summer institute series offered by the National Institute of Financial and Economic Literacy at Edgewood College in Madison, Wisconsin. This multiday program has participants develop lesson plans for their own students and, in a course covering entrepreneurship, develop a business plan that can serve as a model for a business-planning activity in their own courses.

This report has touched on several topics that should be covered in a financial education course. For a comprehensive list, see the Youth Financial Education Curriculum Review Report and Tool (CFPB 2015). Topics covered in this document that may be particularly relevant to youth apprentices include savings and investment planning, budgeting for expenses, paying taxes, understanding employer-provided benefits, human capital planning, borrowing and using credit, insurance, and entrepreneurship.

The Youth Financial Education Curriculum Review Report and Tool also goes into detail about the pedagogical elements of an effective financial education course. Among other things, a course should support cognitive development by requiring students to reflect and engage during class discussions and perform higher-level tasks, such as connecting concepts, solving problems, and explaining ideas, instead of just reading about them. An effective course should ensure students grasp the meaning and application of concepts in the context of their own life experiences and planned futures. Simply encouraging students to discuss real life examples, especially their own, can make a big difference (Du Plessis and Green 2014).

**Youth Apprenticeship Coordinators and Coaches**

Even with a financial education course in place, and especially in its absence, youth apprentices encounter circumstances at work and in managing their new incomes that may require the intervention or advice of an adult outside the student’s family or social group. Students need someone to serve as their financial advocate or coach. The coach should be available to answer questions and provide advice free of judgment. Tough love may often be required—an apprenticeship is hard work—but like a good
customer service representative, a coach should welcome an apprentice on their terms, no matter how small an issue is or how frequently it arises. Because apprentices may encounter financial challenges at varied and unexpected moments, having a staff member available to answer questions outside the confines of a single semester or school year is crucial.

According to a report by Leung and Miley (2013) about a financial coaching intervention in Boston, an ideal coach identifies and builds on the strengths of their students. The coaching approach “combines a set of affirming principles...with techniques for coaches to help participants envision and develop a sequence of actions to pursue a dream, and to address obstacles and stay on track. This is perceived through a participant-centered process—as opposed to a list of external directives—designed to cultivate reflection, personal development and action.” The coaching approach is a resource-intensive one but can have substantial effects after even just a handful of engagements (Theodos and Treskon 2015).

When issues arise with the employer, or if the apprentice exhibits poor behavior, coaches should work with all relevant parties toward a solution with the faith that all apprentices can succeed if given the right resources to improve their behavior. This means identifying problems before they become unsolvable or inexcusable. An apprentice may have a concern or legitimate grievance that is contributing to their performance, and simply giving the apprentice someone to talk to openly about their side of the story may prove immensely helpful, even if the only solution is to grit one’s teeth and work through it.

One interviewee from Wisconsin’s North Central region gave an example of a coaching intervention involving a youth apprentice who lacked initiative on the job. After the employer voiced their concern to the student several times, the student, the employer, the high school coordinator, and a staff member from the training provider sat down together, shared their sides of the story, and wrote down a plan to ensure the student would be successful. “Building relationships between students, parents, coordinators, and employers helps the students feel connected,” the interviewee said, “and we’ve found great success with that.”

Interviewees all said they are open to answering questions from students as they arise and can be reached by email or, if they work in an office at a high school, in person. However, building trusting relationships with students requires time and effort. Tim Vinson said it took some time for students to get to know him. But after a decade in his current position, he thinks he is well-known on campus as “the guy who helps you get a job.” Vinson said he got to this point by spending significant time and energy building a relationship with each student.
Finding time in staff’s busy schedules for this level of coaching is difficult, and most YA coordinators said they do not have as much time to work with students as they would like. Some interviewees said it would be helpful if some YA staff could be allocated more time to work directly with apprentices as caseworkers. Perhaps one caseworker could serve an entire district or consortium of schools, or an apprenticeship teacher at each school could spend time every day meeting with apprentices.

Teaching Students Prior to Apprenticeships

A few interviewees said they would like to start talking to students as early as middle school to expose them not only to the possibility of YA, but also to the financial and career choices they need to make in high school and beyond.

Tim Vinson said it is important to expose students to the world of work early on to give them something to latch onto. From there, students with further interest and motivation will be more receptive to pursuing YA or enrolling in financial education, employability skills, or business courses. Because money management education requires motivated students, and motivation in turn requires students to be aware of the relevant topics and questions to ask, it behooves schools to reach students with as many financial education touch points as possible early on. Vinson said his district in Muscogee County, Georgia, just received funding for a two-week summer “boot camp” for rising seniors, which will include field trips to employers and soft skills training, to give them a “snapshot of what their future could look like.”

Motivate Students by Appealing to Their Goals

Financial education, like any form of education, is more effective when students are motivated to learn it. Hilgert and Hogarth (2003) find evidence to support the intuitive claim that high school students learn significantly less if they are not interested and motivated, even if they sit through lectures and hand in assignments.

Recent research by Wrzesniewski et al. (2014) offers a key insight for teachers attempting to motivate their students: any internal sources of motivation students may have regarding money management (“I want to save for a big concert”) should be cultivated by teachers, and external sources of motivation (“You should save because financial stability is important”) may demotivate or distract these students. Wrzesniewski and her colleagues find that even among West Point students, intrinsic
motivation ("I want to be a good Army officer") was far more powerful than extrinsic motivation ("I want West Point on my resume to get a good job"). By playing to students' existing goals, teachers can show the payoff of saving and help students extrapolate the potential benefits of their newfound saving skills on longer-term goals.

One YA coordinator in Wisconsin said money is a major motivation because it is a route to the things students want to buy. He thinks the current generation of students is more focused on these material benefits than past generations. Another YA coordinator in Wisconsin said, “Money is a huge motivator for many students, and even a 25 cent increase in wages may cause some students to choose one employer over another.” To the extent that this is true and that youth apprentices are focused on money, financial education teachers should use this productively to engage students, turning students' desires to buy a car or a laptop into teachable moments to discuss saving or borrowing in concrete terms. Christina Hinz offered a differing opinion, and said students' main motivation is not money but experience in the workforce. These theories suggest that YA could be an ideal venue for teaching financial skills relevant to young members of the workforce because of the many teachable moments they experience. Apprentices must figure out how to manage their money, how taxes reduce their take-home pay, how to save some of their earnings, and how to invest in their own human capital. All of these experiences can motivate youth to learn.

Additional Psychological Nudges

Nudges, a concept from behavioral psychology, are subtle changes to the rules or structure of programs designed to change participant behavior. Nudges that have proved successful include automatic enrollment in savings plans, keeping written savings goals, and holding group meetings to track progress, all of which are directly applicable to youth apprenticeship.

The benefits of automatic enrollment are suggested by a well-known study of employees and retirement plans that found employees are more likely to participate in a retirement plan if they are automatically enrolled and given the chance to opt-out, rather than simply given the chance to opt-in (Thaler and Benartzi 2004). For students who begin a YA program unbanked, the opt-out principle could be extended to banking by automatically signing students up for a field trip to a bank; students could opt-out if they do not want to open an account. If appropriate, a watered-down version of this principle could be applied to financial education for youth apprentices. A teacher might ask students to set savings goals and then suggest an amount the student should save from each paycheck in order to
meet the goal. Where active participation is a component of financial education, teachers should remove every barrier possible and require students to opt-out of participation where appropriate.

One school counselor in Wisconsin said that she already asks students about money-saving habits and plans. By raising the topic, albeit informally and usually only once or twice, she hopes to help students understand the importance of saving. In terms of savings goals, she finds most students are saving for tuition expenses or for a car, although many students are primarily focused on short-term purchases such as meals, clothing, and phones. The counselor said she would be open to making more formal, goal-oriented financial coaching a regular part of her interactions with students.

Additionally, teachers or coaches can harness the power of social pressure to encourage students to meet their goals. Research has shown that individuals are powerfully influenced by the behavior and expectations of their peers. If youth apprentices feel that failure to meet their personal goals will also let their peers down, they will be more motivated to achieve those goals (Hilgert and Hogarth 2003). Teachers or coaches could ask apprentices to set an attainable financial goal at the start of their apprenticeship, such as saving for the cost of textbooks or toward a down payment on a car. The teacher or coach could check in on each apprentice’s progress throughout the apprenticeship, and the class could brainstorm strategies to stay on track.

**Testing Interventions**

In implementing some or all of these recommendations, YA programs should evaluate their effects on the knowledge and actions of apprentices. Some approaches, such as an opt-out savings plan, might be evaluated in a random assignment experiment. Indeed, researchers have previously developed experimental tests of behavioral economics nudges. In cases in which contamination within local YA programs limits the applicability of random assignment, the program could implement strategies sequentially in different geographic areas. Some tests might address the quality of financial advice that mentors and coworkers provide. Tests should lay out realistic and achievable objectives and communicate them to those teaching, counseling, and advising apprentices. Evaluations should attempt to capture the costs and the benefits of these add-on initiatives to YA programs. A key question is the cost-effectiveness of such add-on efforts relative to full-semester financial education courses. In the long term, statistical tests can determine the impact of youth apprenticeship-based financial education on graduates’ wage and employment levels and their savings.
Making Youth Apprenticeship a Holistic Experience

Youth apprenticeship offers high school students a chance to learn advanced occupational and employability skills in a workplace setting while earning a salary and contributing to production. For many participants, apprenticeships can jumpstart their entry into a rewarding career. Subsequent education and training is often financed by the employer, and apprenticeships in a particular field (e.g., taxes) can provide a base for attaining qualifications in a related field (e.g., accounting).

Financial education and financial practice interventions can round out the youth apprenticeship experience. At a minimum, programs should become more conscious about the teachable moments apprentices experience. They range from having a bank account that can be used and is sometimes required to receive wages; to default (and opt-out) savings plans; all the way to the exploration of costs and benefits of future education and training, either within the same career or a different field.

If the financial education components are effective, states that have already implemented some aspects of youth apprenticeship will realize benefits beyond the teaching of occupational and employability skills. States beginning to implement youth apprenticeship can incorporate these lessons about financial education modules.

Youth apprenticeships already make a genuine positive difference in the maturity and skills of participants. Adding financial education components will enhance the experience and thereby contribute substantially to the development of American youth.
Appendix A. List of Interviewees

Donna Andrews
Youth Apprenticeship Coordinator
Upson-Lee High School and Lamar County Academy, Georgia
Phone interview, March 28, 2016

Jamie Bernthal
Program and Policy Analyst
Department of Workforce Development, Wisconsin
Phone interview, February 23, 2016

Sarah Dillon
Dean of Enrollment
Northcentral Technical College, Wisconsin
Phone interview, March 28, 2016

Dina Guralski
Youth Apprenticeship Coordinator
North Central Consortium, Wisconsin
Phone interview, March 28, 2016

Christina Hinz
Youth Apprenticeship and Work-based Learning Coordinator
Henry County School District, Georgia
Phone interview, March 29, 2016

Dwayne Hobbs
Program Manager for Career, Technical, and Agricultural Education
Georgia Department of Education
Phone interview, March 9, 2016

Tom Martin
Youth Apprenticeship Coordinator
Southwest Consortium, Wisconsin
Phone interview, February 24, 2016

Heidi Radel
Teacher
River Valley School District, Wisconsin
Phone interview, March 14, 2016

Kelsi Seubert
Marketing and Public Relations Coordinator
Northcentral Technical College, Wisconsin
Phone interview, March 28, 2016

Laurie Wallace
Youth Apprenticeship and Work-based Learning Coordinator
Baldwin College & Career Academy, Georgia
Phone interview, April 11, 2016

Tim Vinson
Youth Apprenticeship Coordinator
Muscogee School District, Georgia
Phone interview, March 29, 2016.

Four other interviewees wished to remain anonymous.
Notes


3. See note 1.


References


About the Authors

**Andrew Karas** is a research assistant in the Center on Labor, Human Services, and Population at the Urban Institute. His research has focused on topics including youth apprenticeship, financial well-being, fathering behavior, and elementary and prekindergarten education programs. He often applies his training in econometrics and statistical programming but also enjoys qualitative research. While attending Swarthmore College, he investigated segregation in 20th-century Rust Belt cities, land use in Global South countries, and success factors in US transit sales tax referenda, among other topics.

**Robert I. Lerman** is an Institute fellow in the Center on Labor, Human Services, and Population at the Urban Institute. Since becoming a professional economist, he has been focused on understanding social problems and developing persuasive ways to attack them. His published research covers employment issues, earnings and income inequality, family structure, income support, and youth development, especially as they affect low-income populations.
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