



LEARNING FOR LIFE:

THE OPPORTUNITY FOR TECHNOLOGY
TO TRANSFORM ADULT EDUCATION

PART 1: INTEREST IN AND APTITUDE FOR TECHNOLOGY



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TheJoyceFoundation

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THE OPPORTUNITY FOR TECHNOLOGY IN ADULT EDUCATION

In fall 2014, Tyton Partners (formerly Education Growth Advisors), with support from the Joyce Foundation, conducted national research on the role and potential of instructional technology in the US adult education field. The objective was to understand the current state of the field with respect to technology readiness and the opportunities and challenges for increasing the use of technology-based instructional models within adult education.

*We define adult education as **instructional training programs that help underprepared adults develop basic skills in the areas of literacy, numeracy, and digital literacy**. This analysis draws on extensive primary and secondary research, including a national survey completed by more than 1,000 adult education program administrators and practitioners, interviews with more than 50 adult education experts, and a comprehensive scan of secondary research materials to frame and size the adult education landscape.*

Through two publications, we will present the findings from our research and propose key questions and ideas to catalyze conversations among adult education leaders and practitioners, policy makers, education suppliers and entrepreneurs, and foundations and funders regarding the gaps in the adult education system and opportunities for leveraging technology to better meet the needs of underprepared adult learners. The briefs will address both demand-side and supply-side dynamics.

This initial publication focuses on the demand side and addresses adult education administrators' and practitioners' perspectives on the role and potential of technology to support their students' needs and objectives. The second publication in this series, Part 2: The Supplier Ecosystem, highlights supplier market dynamics, usage of instructional resources, and programs' purchasing processes. Across both publications, we offer insights and recommendations to adult education program leaders and instructors, policy makers, suppliers and entrepreneurs, and foundations and funders for stimulating innovative technology-based instructional models to support this high-need community of learners.

Executive Summary: *The number of US adults lacking basic skills in the areas of literacy, numeracy, and digital literacy is substantial – nearly one in six US adults maintains low literacy skills, while nearly one in three possesses low numeracy skills – and the consequences are debilitating.¹ These underprepared adults tend to earn lower wages, are less likely to enter postsecondary education, and face a higher likelihood of poor health than do their peers with a stronger educational foundation. Not only is education fundamental to*

1. OECD, *Time for the U.S. to Reskill?: What the Survey of Adult Skills Says*, OECD Skills Studies (OECD Publishing, 2013), <http://dx.doi.org/10.1787/9789264204904-en>.

individual welfare and lifelong opportunity, but the effect of a large low-skilled adult population on the US economy is considerable; the economic impact of millions of underprepared adults amounts to billions of dollars annually in greater healthcare costs and lost tax revenue stemming from unemployment and underemployment. In addition to these impacts on domestic economic and public health, our nation's global competitiveness hinges on the education of our workforce.

Quality of instruction is also a challenge facing the adult education field. Performance data on education gains within the adult education system suggests that the quality of adult education programs needs improvement.² Moreover, while there are roughly 36 million US adults struggling with the consequences of low skills, the adult education system today serves only 4.1 million adults, or roughly 11% of those in need. With the adult education system at capacity, there is considerable unmet demand for adult education services. **Enhancing the quality of adult education and access to adult education opportunities is therefore imperative, both for individual welfare and for our society more broadly.**

Over the past decade, innovations in educational technology have impacted nearly all preK-12, postsecondary, and corporate and professional learning environments. Billions of dollars have been invested in educational technology businesses, driven by the promise of technology to transform student learning and achievement, among other goals. These wide-ranging businesses provide online courses, personalized learning platforms, free and open educational content, mobile and gamified learning, and social collaboration platforms, among numerous other developments. To date, these investments have had a limited impact on adult education; this is a missed opportunity to apply our best and most creative entrepreneurial education efforts to a large community of learners with a dire need.

Tyton Partners' national survey represents one of the largest and most comprehensive surveys on the use of technology in the adult education field. Conducted in November 2014, the survey collected data from more than 1,000 program administrators and practitioners across the adult education system. The data provides insight into the opportunity for technological innovations to take root in the US adult education field more broadly. Issues examined include technology readiness, access, and use within various adult education delivery channels, as well as market opportunities, program decision-making processes, and the supplier ecosystem for instructional resources.

The overwhelming finding is that **the vast majority of adult education program administrators and practitioners are enthusiastic about the potential for technology to support instruction.** Administrators and practitioners are open to and interested in thoughtful, appropriate deployment of technology to meet the needs and goals of their students.

2. Performance data available from the National Reporting System for Adult Education (NRS).

This finding alone should encourage suppliers and entrepreneurs to take a more careful look at the adult education market, which today supports nearly \$800 million in annual instructional resources spending.

In addition to adult education professionals' receptivity to instructional technology opportunities, several other key demand-side findings emerged:

- Technology infrastructure is strong across the adult education system; more than 80% of survey respondents reported consistent access to the Internet and on-site availability of computers*
- Most adult education program instructors reported that they are comfortable using technology and believe they have the ability to leverage technology in a professional setting; fewer than one in five adult education professionals feels that technology can be challenging or difficult*
- Investing in technology is a budget priority for the majority of program administrators, even as funding constraints limit their ability to pursue more robust technology investments*
- Almost 90% of adult education programs leverage free, open educational resources to support instruction; these technology solutions are more prevalent and are viewed as more important to instruction than any other type of instructional technology solution*
- At least 55% and as many as 75% of adult education students own smartphones, and the majority of program administrators and instructors believe that these devices have the potential to improve engagement and instruction*

These findings highlight a community desirous of more technology tools and resources that are effectively tuned to the needs of their students and environments. We explore these optimistic demand-side dynamics in further detail below, in addition to offering a set of recommendations for adult education stakeholders – policy makers, program administrators and practitioners, suppliers, and funders – as they consider ways to support and extend existing instructional programs within the adult education community.

“Adult education must be willing to paint the future with broad strokes that infuse digital formats to enhance learning.”

– Survey Respondent

OVERVIEW OF THE ADULT EDUCATION LANDSCAPE

Ask any leader in the adult education field to characterize the landscape and they will immediately cite the high degree of program and student diversity, as well as fragmentation across the community. Or, as one interviewee noted after trying to describe the various adult education programmatic models and delivery providers – “It’s a messy space.”

The framework below illustrates the blend of programmatic models and education delivery channels that collectively constitute the adult education system.

ADULT EDUCATION SYSTEM FRAMEWORK

PRIMARY FUNDING STREAMS	PROGRAM TYPE	EDUCATION DELIVERY CHANNEL						
		K-12/LOCAL EDUCATION AGENCY	COMMUNITY COLLEGE	COMMUNITY-BASED ORGANIZATION	AMERICAN JOB CENTER	EMPLOYER	OTHER*	
WIOA Title II (AEFLA), State, and Local	ABE, ASE, ESL, Basic Literacy, HSE Prep	✓	✓	✓			✓	PUBLIC-SECTOR FOCUS
Bridge Programs/Integrated Education and Training (IET)**								
Federal and State	Remedial/Developmental		✓					
WIOA Title I	Workforce Training	✓	✓	✓	✓			
Internal Corporate Investments	Employer Training					✓		
Individual Resources	Consumer Education						✓	

✓ = PROGRAM TYPE DELIVERED IN EDUCATION DELIVERY CHANNEL

* “Other” includes public libraries, correctional institutions, and churches, among alternative sites.

** Bridge programs or integrated education and training (IET) programs are treated as a subcategory of ABE/ASE/ESL and community college programs within this framework.

Our analysis and recommendations center on findings derived primarily from initiatives and audiences in the public sector. The employer and consumer segments represent important markets with strong potential and opportunity for innovation but fall outside the scope of this research.

Brief definitions of the programmatic models included in this research are provided below.

ADULT EDUCATION PROGRAMMATIC MODELS

- **Adult Basic Education (ABE):** basic skills programs targeting adult learners with proficiency levels below the 9th grade level
- **Adult Secondary Education (ASE):** basic skills programs targeting adult learners with proficiency levels at or above the 9th grade level
- **English as a Second Language (ESL or ESOL):** instruction for adult learners who have limited English proficiency
- **Basic Adult Literacy:** programs for adults learning to read
- **High School Equivalency Exam Preparation (HSE):** programs that prepare learners for the General Educational Development (GED) test, the High School Equivalency Test (HiSET), and the Test Assessing Secondary Completion (TASC) test
- **Remedial/Developmental:** instruction designed to assist entering postsecondary students in achieving expected competencies in core academic areas
- **Bridge, or Integrated Education and Training (IET):** programs that combine occupational skills training with adult education services
- **Workforce Readiness Training:** services provided to help adults secure a job, delivered through adult basic skills programs or through American Job Centers (formerly called One-Stop Career Centers)

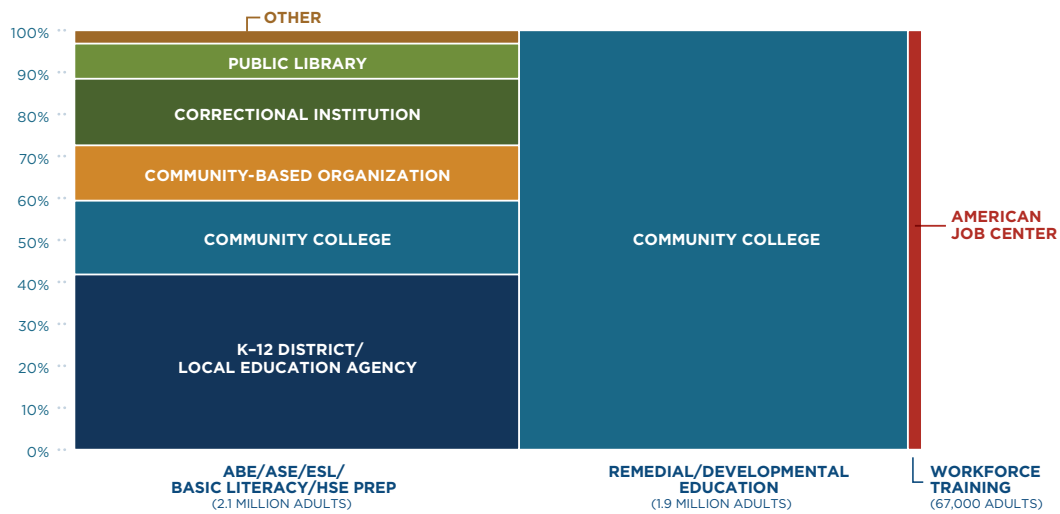
The 4.1 million adults currently served by the adult education system are participating in a variety of programs focused specifically on basic skills training. Approximately 2.1 million adults participate in ABE, ASE, ESL, basic literacy, or high school equivalency prep, primarily through programs that receive federal funding. Of the remaining adults, nearly 1.9 million participate in remedial/developmental education programs, largely within community colleges, and nearly 70,000 receive basic skills training through workforce training programs.³

Viewing the adult education market through a channel lens, community colleges are the largest institutional segment delivering programs. More than 2.2 million adults are being served by community colleges in both remedial/developmental education programs and in ABE, ASE, and ESL programs. K-12 districts and other local education agencies (LEAs) represent the second-largest channel, serving 890,000 adults. Other channels, while smaller in terms of the number of students supported, nevertheless represent important options for underprepared adults. For example, community-based organizations (CBOs) only serve 280,000 adults in public funded adult education programs, but these organizations typically educate adults with some of the greatest needs in the country.

3. Workforce programs, most often delivered in American Job Centers, serve more than 20 million adults, primarily in the areas of job preparation, search, and matching; however, less than 1% of these adults receive basic skills training in the areas of literacy, numeracy, or digital literacy.

DISTRIBUTION OF ADULTS BY PROGRAM AND EDUCATION DELIVERY CHANNEL

TOTAL = 4.1M



The considerable diversity in the adult education community suggests that the perspectives of stakeholders may vary based on the program or channel they inhabit; where relevant, we have highlighted those distinctions.

ENTHUSIASM FOR TECHNOLOGY

Adult education program administrators and practitioners revealed a strong receptivity to and enthusiasm for technology-based instruction. The vast majority of respondents – more than 85% – believe that technology solutions can effectively support adult education instruction, and by extension, the needs of adult learners. Encouragingly, this dynamic held true across both program administrator and instructor populations in all channels surveyed.

ENTHUSIASM FOR TECHNOLOGY IN ADULT EDUCATION



"I think technology solutions can effectively support adult education instruction."

■ YES (86%) ■ NEUTRAL (12%) ■ NO (2%)

The enthusiasm for technology across all sectors of the adult education landscape is an extremely valuable finding for the field and has not previously been substantiated via large-scale research. It suggests that front-line adult education professionals are willing to investigate and deploy technology-based instructional models, assuming that a base level of infrastructure is available and that adequate professional development and support are provided to ensure effective implementation.

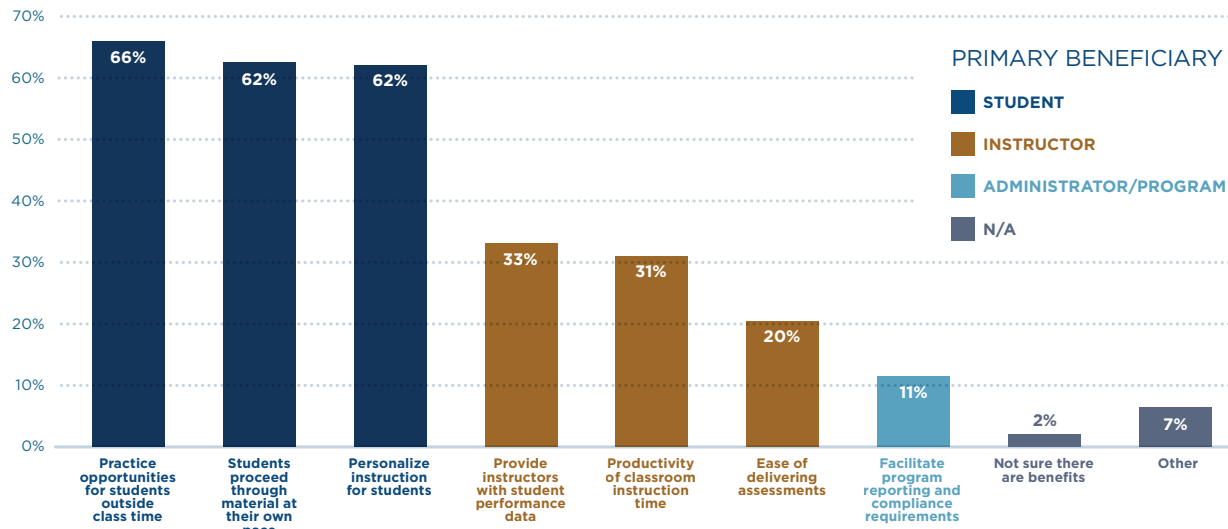
"Technology has the potential to transform many students' learning and support students' functionality in life. We as a field need to know about new technologies, devices, and solutions that will accomplish this."

– Survey Respondent

Respondents identified the positive impact on their students' learning experiences as the most important benefit of technology-based instructional resources. Student-centric benefits (e.g., enabling students to practice outside the classroom, personalized instruction) were seen by program administrators and instructors as nearly twice as important as benefits affecting instructor or program productivity and efficiency.

These findings differ from dynamics observed in the K-12 and postsecondary markets, where benefits that enhance teacher and faculty productivity and efficiency are often considered as important as benefits that impact student learning experiences.

BENEFITS OF TECHNOLOGY IN ADULT EDUCATION



"What do you believe are the most important benefits that technology-enabled instructional resources can provide for your adult education program? (Select up to three)"

Adult education professionals' overwhelming prioritization of student benefits from technology-based instructional models suggests a clear path of opportunity for suppliers and entrepreneurs serving this market. The personal and professional hurdles that adult learners face are significant, and survey respondents' priorities reflect their core focus on striving to close the profound education gaps that exist for many of their students.

Improving students' digital literacy represents another notable potential benefit of technology-based instructional resources, according to respondents. Of the 7% of respondents who selected "Other," an overwhelming majority provided write-in comments highlighting the opportunity for technology to aid students' digital literacy and 21st-century skills development. Not surprisingly, access to technology-based instruction and resources was identified as an effective way to address these gaps.

"Students must use technology tools in preparation for 21st-century postsecondary education and workforce expectations. Most entry-level jobs now require a basic comfort with technology, and students need to develop proficiency to communicate within society."

- Survey Respondent

INFRASTRUCTURE AND INSTRUCTOR READINESS

Having access to computers and, ideally, the Internet, is an obvious prerequisite for the implementation of technology-based instructional resources. Encouragingly, the majority of program administrators and instructors reported that their programs possess access to both computers and the Internet. Feedback from survey respondents establishes an aggregate picture of solid availability of on-site technology across the field, a valuable finding.

ACCESS TO INTERNET ON-SITE AT ADULT EDUCATION PROGRAMS



"Please indicate the extent to which Internet access is available for instructional purposes on-site at your adult education program."

■ ALWAYS (84%) ■ SOMETIMES (12%) ■ NEVER (3%) ■ DON'T KNOW (1%)

NUMBER OF COMPUTERS AVAILABLE ON-SITE AT ADULT EDUCATION PROGRAMS



"Please indicate the number of computers you have available for instructional purposes on-site at your adult education program."

■ MANY IN THE CLASSROOM/LAB (68%) ■ A FEW PER CLASSROOM (15%) ■ ONE PER CLASSROOM (3%)
■ VARIABLE (12%) ■ NONE (2%)

While most programs possess Internet access and computers, variability exists. For example, responses from program administrators and instructors in the CBO channel reveal that their organizations have less robust technology infrastructure than organizations in other channels (e.g., K-12, postsecondary). Despite this, CBO respondents are equally bullish about the potential benefits of technology for their students. Thus, similar to the K-12 environment, suppliers need to account for a heterogeneous computing environment when designing technology-based instructional solutions for adult education.

Survey respondents' perspectives on the frequency of student access to computers provide insight into the types of instructional solutions that can be most effective in this field. Roughly half of survey respondents reported that although they have multiple computers on-site, their students do not always have access to computers, suggesting that computers are being shared among students or classes. As a result, solutions that deliver supplemental technology-based activities integrated with more traditional face-to-face instructional models will resonate most strongly with decision makers. Digital solutions that require intensive student computer time in class and those designed for use in an environment where every student has access to a device are not currently practical for most adult education programs. However, the prevalence of smartphones among adult learners, as detailed on page 17, offers an exciting path forward for realizing a near-term 1:1 adult education computing environment.

FREQUENCY OF ADULT EDUCATION STUDENTS' ACCESS TO COMPUTERS AT THEIR PROGRAM SITE



"Please indicate the frequency of your students' access to computers for instructional purposes on-site at your adult education program."



This data regarding adult education programs' technology infrastructure is promising and provides a critical foundation for stakeholders across the field who are contemplating the introduction or expansion of technology-based instructional solutions. It creates a baseline expectation for suppliers developing technology solutions and highlights opportunities for program administrators and policy makers who are driving adult education investment conversations and efforts in their communities.

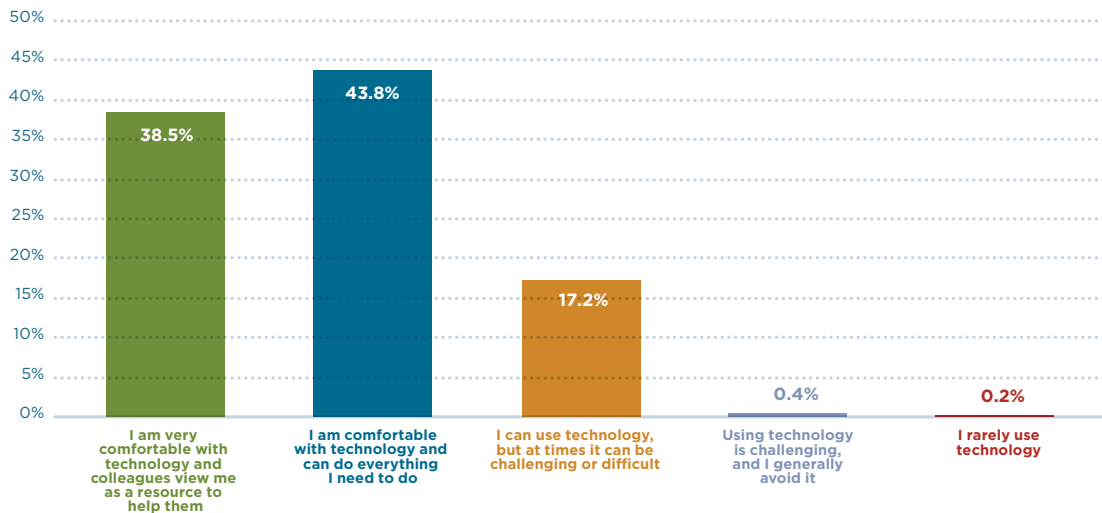
"As we are still far from having one computer or tablet per student, we're incorporating shared technology models into our programs."

"Technology can be an excellent supplemental tool for a good teacher who knows how to integrate it well."

– Survey Respondents

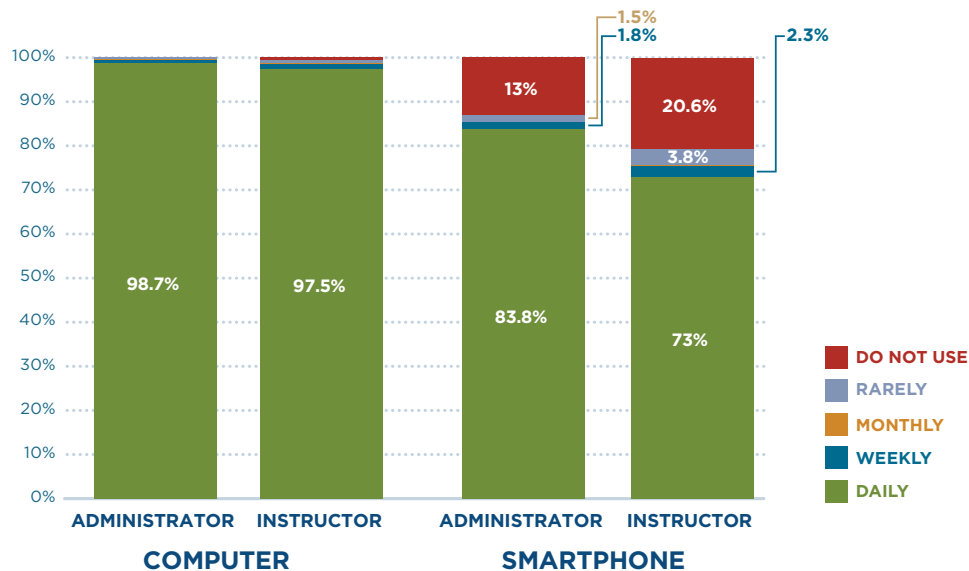
The readiness of instructors to use technology confidently is another key prerequisite for the effective use of technology-based instructional resources. More than 80% of survey respondents reported that they are comfortable using technology; nearly all respondents reported that they use personal computers on a daily basis. Among respondents, a slightly higher percentage of administrators than instructors reported technology comfort and regular device usage. This data on technology comfort suggests that adult education professionals believe they have the aptitude and disposition to leverage technology in a professional setting.

ADULT EDUCATION ADMINISTRATOR AND INSTRUCTOR COMFORT WITH TECHNOLOGY



"Please select the statement that best describes your level of familiarity and comfort with using technology."

PERSONAL DEVICE USAGE BY ADULT EDUCATION ADMINISTRATORS AND INSTRUCTORS



"How often do you use the following technology devices for personal use?"

“The technology is only as good as the instructor who introduces and applies the technology for students.”

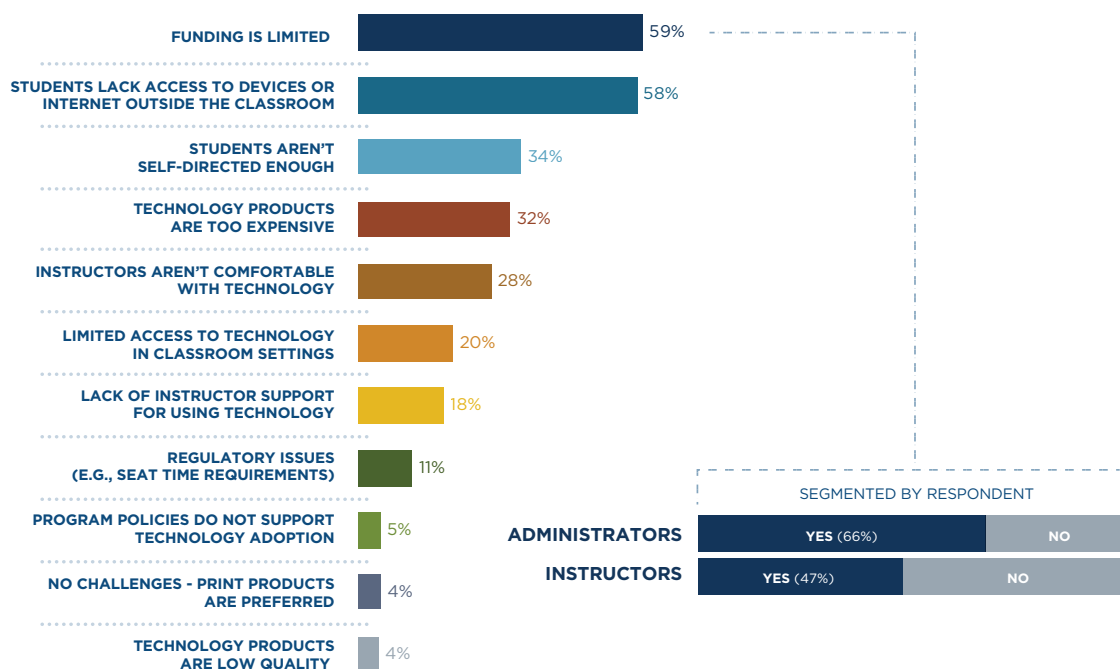
- Survey Respondent

Of course, daily use of a computer or smartphone does not directly equate to an ability to effectively employ technology-based instructional resources in a classroom setting. Both interviewees and survey respondents highlighted the need – and opportunity – for professional development services to further enhance the skills of adult education practitioners.

FREE TECHNOLOGY IN THE FACE OF FUNDING CHALLENGES

Nearly 65% of program administrators, who are the primary decision makers regarding instructional materials purchasing across most programs and channels, agreed that investing in technology is a budget priority, reinforcing the opportunity for technology expansion in this field. However, limited funding prevents programs from pursuing more robust technology investments, and this was the challenge most often cited by surveyed administrators.

CHALLENGES IMPACTING TECHNOLOGY IMPLEMENTATION IN ADULT EDUCATION



"What are the greatest challenges in implementing technology-enabled instructional resources in your adult education program? (Select up to three)"

Notwithstanding these funding challenges, adult education programs are finding ways to integrate technology resources into their instructional practices. More than 85% of responding administrators and instructors reported using free online technology resources, such as Khan Academy, Facebook, and Google Docs, and they place a high degree of importance on the role of these offerings in supporting instruction. The high rate of use and strong emphasis on free and open technology resources revealed by respondents has important implications relative to the field's adoption of technology-based instructional resources and the evolution of the supplier ecosystem. We will explore this dynamic more fully in the second publication in this series.

“Individual teachers are using technology that is not necessarily designed for education practices, and they are doing it in large part on their own. They are taking advantage of things like Google Docs and Facebook, and other resources that can be found online.”

“Free online resources get us the best bang for our few bucks and help the most learners. Due to limited funding for resources, adult education programs need to look into OER [open educational resources].”

- Survey Respondents

Generally, program administrators do not perceive technology solutions as cost prohibitive, but rather the funding squeeze leaves little discretionary budget for instructional investments. More broadly, program administrators must contend with covering basic needs – e.g., staff salaries, utilities, and basic supplies – and instructional investments tend to be a lower priority when juxtaposed with the fundamental elements required to operate an adult education program. Irrespective of technology expansion, increased funding for adult education can help bolster instructional investments and professional development initiatives that will enhance programmatic quality and impact.

“Budget concerns are an issue, since we struggle to cover salaries and other costs. We often don't have much left over to purchase technology.”

- Survey Respondent

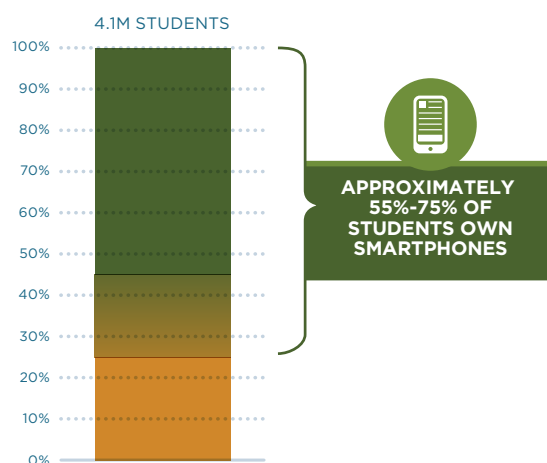
The resourcefulness exhibited by adult education professionals seeking to introduce more innovative technology-based instructional resources and strategies is exciting. This dynamic is a clear signal that the field needs a similar level of creativity from suppliers and entrepreneurs through technology-based solutions that meet customer demand and from policy makers striving to augment and enhance programs' resources and infrastructure.

MOBILE OPPORTUNITY OUTSIDE THE CLASSROOM

As noted in the graphic on page 15, students' lack of access to the Internet and electronic devices outside the classroom is perceived as a significant impediment to implementing technology-based instructional models in adult education. However, respondents may have taken too narrow a view of technology here, interpreting "devices" as more traditional computers (e.g., laptops, desktops) and excluding consideration of broadly available mobile devices – smartphones. Moreover, program administrators and instructors flagged practice opportunities for students outside of class time as the most important benefit of technology-based resources see the graphic on page 10). Given the perceived lack of students' computer access outside the classroom, smartphones represent a practical – and achievable – solution for capitalizing on this opportunity, and point to an initial pathway for addressing the technology access challenge more broadly.

We estimate that between 2.3 and 3 million students, or approximately 55% to 75% of the 4.1 million adult education students in programs today, own smartphones, based on analysis of survey data reflecting administrators' and instructors' views of student smartphone ownership. Moreover, given upward trends in smartphone ownership across demographic segments and age groups in the US, we expect that smartphone ownership among adult education students will continue to increase in the coming years.

ESTIMATED SMARTPHONE OWNERSHIP AMONG ADULT EDUCATION STUDENTS

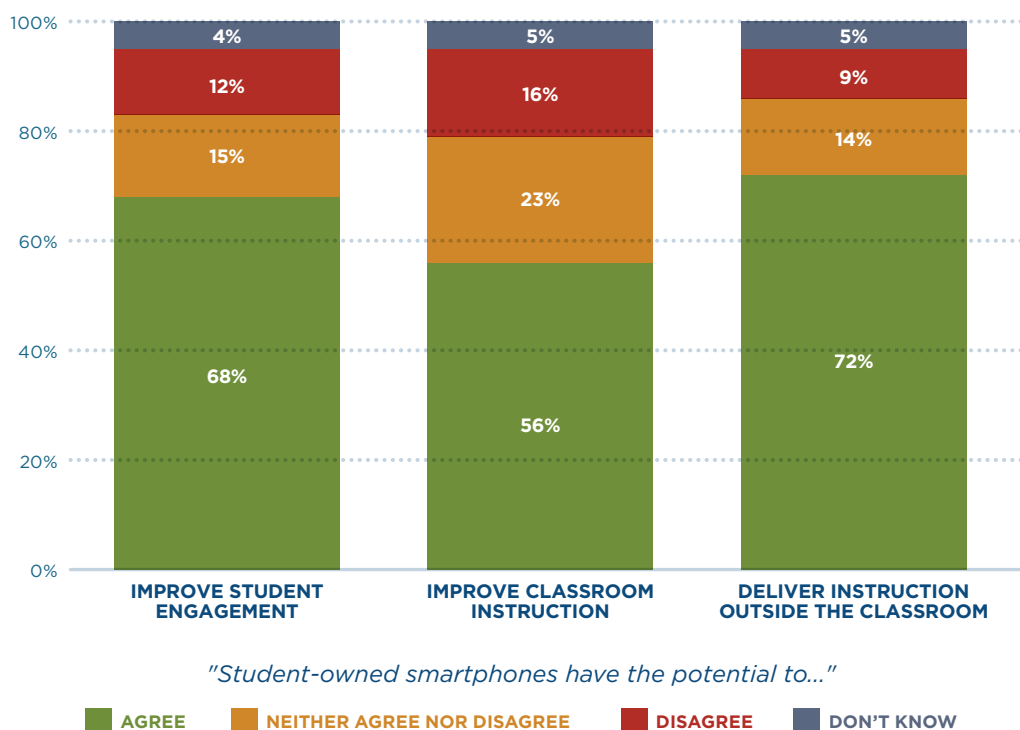


"The mobile device opportunity in adult education is real. Devices are prevalent and growing, although device ownership is still variable across segments of the population."

- Survey Respondent

Not only are student-owned mobile devices prevalent, but administrators and instructors are also optimistic about the potential use of mobile devices for instructional purposes. As highlighted in the figure below, 56% to 72% of respondents believe smartphones can benefit student engagement, classroom instruction, or learning opportunities outside the classroom; moreover, no more than 16% actually disagree with the premise that smartphones offer potential as a teaching and learning tool.

PERCEIVED OPPORTUNITIES FOR STUDENT-OWNED SMARTPHONES



"We should increase access to materials and learning via student smartphones so they are more engaged in learning on a daily basis, both on-site and at home."

- Survey Respondent

The opportunity to expand the use of mobile technologies in the adult education field is significant. Currently, only 27% of survey respondents use mobile apps and games to support adult education instruction, while the majority of adult education professionals believe in the potential of student-owned smartphones to enhance instructional opportunities for students. Moreover, mobile solutions may present a pathway to addressing perhaps the most significant challenge facing the adult education field – reaching the 32 million US adults who are in need of basic skills education but are not currently able to access it through the adult education system.

There are a variety of ways student-owned mobile devices might be used to supplement or enhance instruction, and so understanding how, when, and where these devices can be most effective is critical. Capturing sentiments expressed by many interviewees and survey respondents, an experienced adult education professional who has led the design and implementation of a smartphone app in the field emphasized that any mobile solution needs to be more than merely an app.

“Our solution is an approach. We trained the teachers in a flipped classroom approach, and we trained them on how to embed the app within their instruction. A mobile solution can’t just be an app – it has to be a solution with sufficient instructional scaffolding.”

– Adult Education Professional Interviewee

At the same time, there is a gap in the supply of mobile instructional solutions targeting the adult education community, a theme we will address in the second publication in this series.

A CALL TO ACTION

The themes of educational access, affordability, and improved outcomes have been enhanced by learning technologies in the K-12, postsecondary, and corporate landscapes; this is not yet the case within adult education. However, as our research illustrates, the desire to explore and apply innovative, technology-based instructional resources within the adult education field is well seeded.

Achieving an effective infusion of technology-based instructional resources into adult education environments will be more likely with committed efforts from four key groups: adult education policy professionals; program administrators and instructors; suppliers and entrepreneurs; and foundations and funders. At a macro level, these stakeholders should organize their efforts around three concepts.

- **Understand the starting point** – The research outlined in this report provides a useful national picture of the existing dynamics of and opportunities for instructional technologies in adult education. But there is diversity across states, channels and individual programs; stakeholders would likely benefit from further targeted analysis of the conditions within their own state, program, etc. These efforts could be supported by government or philanthropy, or conducted in more bootstrapped fashion by individual program administrators. Such a fact base would help those stakeholders prioritize interventions and investments.
- **Learn and improve** – Ultimately, using instructional technologies to improve learning outcomes for underprepared adults depends on the intelligent selection and subsequent incorporation of those technologies into an overall learning experience. Federal and state policymakers and philanthropy should explore opportunities to curate existing technologies, particularly open educational resources, and provide selection frameworks or technical assistance to assist programs. Also, communities of practice focused on instructional technology could facilitate co-learning and sharing of insights and strategies that could accelerate effective adoption and mitigate challenges.
- **Attract supplier interest** – Given funding challenges noted in the report, stakeholders should consider how to make the market more attractive. Policymakers could fund or incentivize use of learning technology, thereby increasing the market opportunity. Programs could, simply with peers in their area or under the auspices of the state, aggregate purchasing to make those sales more attractive to suppliers. Or philanthropy could run prize competitions to draw more investment targeted to adult education solutions.

We offer below a more detailed set of initial recommendations and considerations organized by the four stakeholder groups. These should be read as a composite set of actions and initiatives that can cultivate and drive both more and better applications of innovative learning technologies to meet challenges in the adult education community. They are intended to provoke further discussion and action **within and across** the stakeholder communities; they should be read as exhaustive or comprehensive in scope.

ADULT EDUCATION POLICY PROFESSIONALS

State-level policy and administration likely present better opportunities than those at the federal level for supporting the wider, effective adoption of technology in adult education. Particular points of leverage include the following:

- Conduct an annual technology audit of adult education programs to understand baseline technology infrastructure, usage, and investment priorities
- Create incentive programs that encourage adult education programs to implement technology-based instructional models that address key themes (e.g., expanding program access for students, enhancing personalization of instructional experiences)
- Explore cooperative purchasing models that both aggregate the dollars available for instructional technology suppliers and improve procurement processes for local adult education programs
- Facilitate direct technical assistance to adult education providers seeking to develop or deliver more technology-intensive program models
- Support awareness and curation of open educational resources for more effective discovery and implementation by adult education programs; this effort may be most valuable at a multi-state level

Many of these recommendations also apply to program administrators and foundations and should be considered by leaders in those communities as well.

ADULT EDUCATION PROGRAM ADMINISTRATORS AND INSTRUCTORS

At a programmatic level, administrators and instructors can establish a set of principles for why, how, and where technology-based instructional resources should be used. Creating a programmatic strategy vis-à-vis instructional technology facilitates internal alignment and the prioritization of investments within the context of competing programmatic needs. The following recommendations are intended as low-resource, high-value efforts to accomplish this goal.

- Articulate a programmatic vision for using technology to support adult learners
 - Identify and assess how the program currently uses technology - in instruction, other support services, administration - to support adult learners
 - Identify best practices and/or decision rubrics to support programs' processes for identifying, selecting, and implementing instructional technologies
 - Determine priorities for extending use of technology and the level of funding and training required to fulfill those priorities
 - Identify the champions who can rally and support colleagues less comfortable with technology-based instructional models and resources

- Ensure instructors feel prepared to introduce technology resources and tools into their class environment. Determine the types of technology-related professional development opportunities that instructors want or need
- Survey students to learn how they currently engage with technology; core areas to better understand include:
 - Level of confidence in using technology as a means of supporting their learning activities
 - Degree and type of access students have to technology outside the classroom, including where (e.g., home, work, public library, CBO) and how (e.g., desktop computer, laptop, e-reader, tablet, smartphone)?
 - Gauge likelihood of using technology-enabled instructional resources outside the classroom as a supplement to in-class activities
- Identify and engage, as needed, external resources that can offer perspective and experience for the program and its professionals
 - Determine what state agencies, associations, or communities of practice can provide support and insights into technology adoption and use issues
 - Establish relationships with external groups or individuals that can support the program's implementation efforts

We will highlight an additional set of issues and opportunities related to solution categories and procurement models in the second publication in this series, *Learning for Life: The Opportunity for Technology to Transform Adult Education, Part 2 The Supplier Ecosystem*.

SUPPLIERS AND ENTREPRENEURS

Currently, adult education professionals draw on a diverse array of providers and solutions, some of which were purpose-built for this community, whereas others were pulled in by enterprising practitioners seeking any available resource that might enhance the learning experience for their students.

Given the proliferation of innovative technology-based models across the K-12 market, a key question arises – to what extent can these solutions be migrated to the adult education market to enhance the quality and access of solutions for this sizable underprepared learner population? Selected recommendations for suppliers and entrepreneurs are noted here.

- Determine opportunities to reach adult education program customers operating within existing K-12 and postsecondary channels
 - Approximately 3.1 million underprepared adults are in programs hosted by colleges and K-12 districts where suppliers may already have established relationships and sales and marketing capabilities
 - Identify buyers for adult education resources within institutional channels (i.e., state, district, school) in which the organization is already active

- Evaluate product investment requirements for modifying existing solutions for adult learners; the educational objectives of many K-12 English Language Arts and mathematics solutions already align with needs in adult education programs
- Explore channels for supplemental, mobile-first, out-of-class time solutions
 - Evaluate technology-based instructional models that could serve the more than 30 million underprepared adults not involved in programs
- Partner with foundations and other philanthropic funders of adult education programs to ease and/or accelerate market entry opportunities

The second publication in this series, *Part 2 The Supplier Ecosystem*, offers much greater detail on the adult education supplier landscape and opportunities for companies, organizations, and entrepreneurs to serve this market.

FOUNDATIONS AND PRIVATE SECTOR FUNDERS

Foundations and other private sector funders play a critical role in providing supplemental financial resources – direct and indirect – to adult education programs and advocate for support and expansion of successful, proven initiatives. As catalysts for adult education policies and programs at local, regional, and national levels, these organizations are well positioned to support technology-based instructional opportunities and exploration.

- Drive collaboration among adult education programs
 - Support peer learning networks focused on technology-enabled instruction for adult education instructors and administrators
 - Coordinate opportunities to drive purchasing efficiencies across local or regional adult education programs
- Investigate creative funding models (e.g., prize competitions, matching funds, pull mechanisms) to expand purchase of instructional technologies and related resources
- Convene diverse adult education stakeholders (e.g., companies, advocacy groups, education institutions, government agencies) to address systemic gaps and opportunities
 - Increase awareness regarding the opportunities and conditions for technology-based instructional models and benefits
 - Identify and advocate for policy and program initiatives that can enhance experimentation with new teaching and learning models
 - Coordinate key local / regional stakeholders around key adult education issues

APPENDIX: OVERVIEW OF SURVEY METHODOLOGY AND RESPONDENTS

The data presented in this publication was generated from Tyton Partners' national adult education survey conducted during fall 2014. Invitations to an online survey were extended to more than 13,000 individuals in late October 2014, and the survey remained open through early November 2014. A total of 1,057 survey questionnaires were completed, resulting in a yield of 8%.

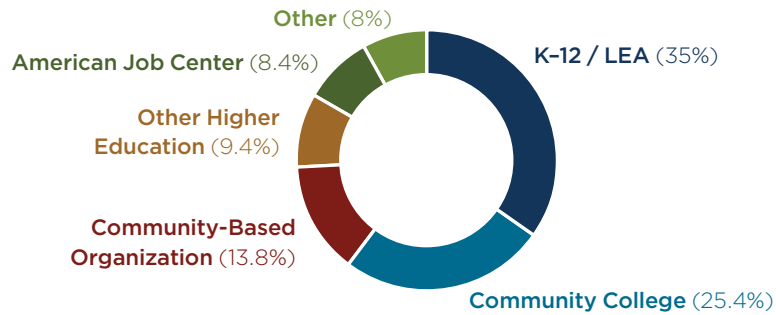
Given the diversity of the adult education field, we sought to reach individuals across the various programs and channels actively supporting adult learners. Survey invitations were extended to prospective respondents sourced through proprietary Tyton Partners lists, through lists purchased from third-party market research vendors, and through our survey partner, the Commission on Adult Basic Education. The table below provides an overview of the five survey lists and their response rates.

SURVEY LIST	SAMPLE DETAIL	TOTAL SAMPLE	RESPONDENTS	YIELD
American Job Centers	Business representatives (e.g., directors, coordinators) of American Job Centers	1,595	80	5.0%
Commission on Adult Basic Education	COABE members who are administrators and instructors of adult education programs in a variety of channels	708	265	37.4%
Higher Education	Administrators and instructors within higher education institutions involved in remedial and developmental education programs and courses	7,743	185	2.4%
K-12	Directors of adult education programs located in K-12 districts and schools	997	85	8.5%
State Adult Education Leaders	Leaders (e.g., directors, coordinators) of state adult education programs across various delivery channels	2,398	457	19.1%
TOTAL		13,441	1,072	8.0%

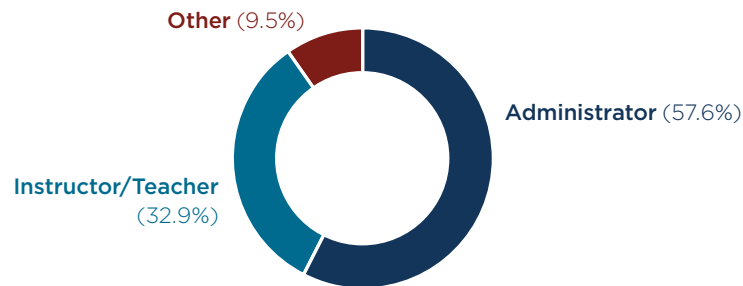
The 1,000+ survey respondents represent a core of relatively experienced and educated administrators and instructors working primarily in the K-12, community college, and community-based organization channels. An overview of survey demographics is provided in the graphics below.

ADULT EDUCATION SURVEY: DEMOGRAPHIC OVERVIEW

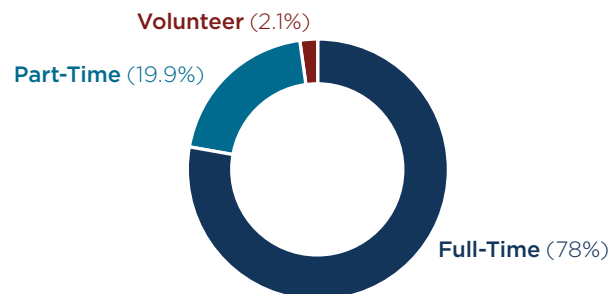
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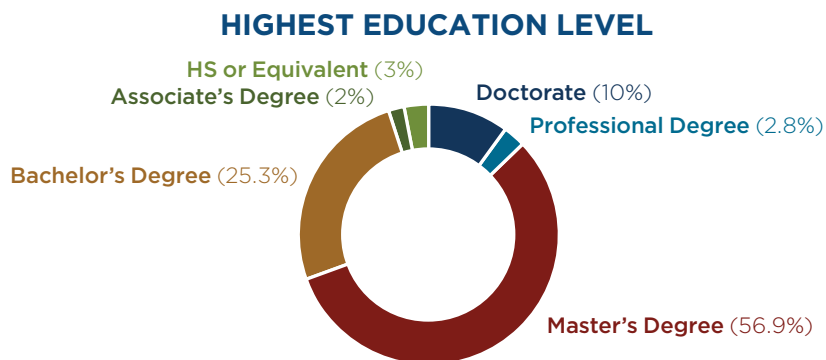
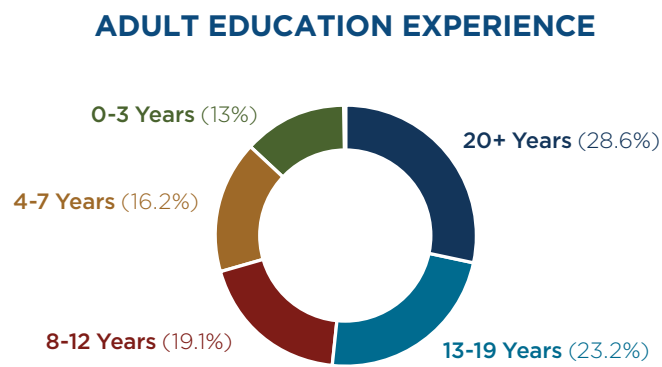
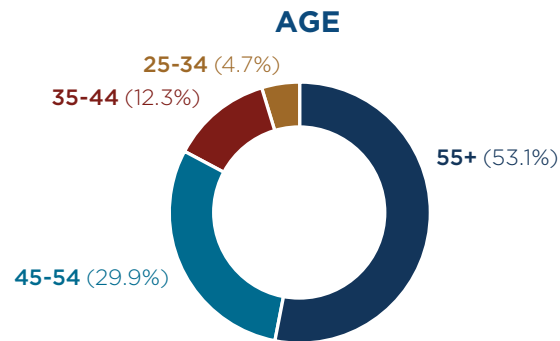


ROLE



EMPLOYMENT STATUS





Because no comprehensive adult education data source exists today, it is difficult to analyze the representative nature of this survey sample. However, in comparing portions of our survey data to existing data on ABE, ASE, and ESL programs from the US Department of Education's National Reporting System for Adult Education, we believe the distribution of our respondents is reasonably characteristic of the adult education system.

ACKNOWLEDGMENTS

The publications in this series owe much to the support and engagement of a diverse and passionate group of individuals and organizations throughout the adult education sector.

Fundamental to our research were interviews conducted with experts throughout the field, complementing the data we collected from more than 1,000 program administrators and practitioners through our online survey. We greatly appreciate the input of all our interviewees and survey respondents, and their contribution to advancing the field's understanding about the role and opportunity for technology to support instructional practices in adult education. Among the organizations with which we had the opportunity to speak are:

- Adult Literacy League
- American Association for Adult and Continuing Education
- American Association of Community Colleges
- Asian American Civic Association
- Association for Talent Development
- Center for Law and Social Policy
- Centro Latino for Literacy
- Chicago Citywide Literacy Coalition
- The City University of New York
- The Collaboratory
- Commission on Adult Basic Education
- Community College Research Center
- Correctional Education Association
- Digital Promise
- East Carolina University
- Edmentum
- Houghton Mifflin Harcourt
- Jewish Vocational Service (Boston)
- McGraw-Hill Education
- National Adult Education Professional Development Consortium
- National Center for Developmental Education, Appalachian State University
- New America Foundation
- Newsome Associates
- Office of Career, Technical, and Adult Education, US Department of Education
- Outreach and Technical Assistance Network
- Pearson
- Project IDEAL
- ProLiteracy
- Quizlet
- Seeds of Literacy
- World Education

We also extend our gratitude to the Joyce Foundation and the members of its Employment program for their support of this work. We similarly want to recognize the Commission on Adult Basic Education for its partnership in helping to make the Tyton Partners national survey one of the largest and most comprehensive surveys to date on the use of technology in the adult education field. In addition, we thank our research partner, Babson Survey Research Group, for its expertise in the development and administration of our surveys and the analysis of data collected through those instruments. We also appreciate the work of Can of Creative, which helped us to execute our vision for this series.

Finally, any errors, omissions, or inconsistencies across this work are the responsibility of Tyton Partners alone.

BIOGRAPHIES

ADAM NEWMAN, *Managing Partner*

Adam Newman is a co-founder of Tyton Partners and has more than 20 years of experience in strategy consulting, market research, and investment banking supporting the education sector. Adam began his professional career as a K-12 educator and athletic coach at schools in Boston, MA, and New Orleans, LA.

TANYA ROSBASH, *Principal*

Tanya Rosbash has spent the past seven years working with public and private companies, non-profits, and government organizations as a strategy consultant and market research professional. As a principal at Tyton Partners, Tanya leads strategy and growth initiatives for companies and organizations across the education sector.

LAURA SARKISIAN, *Associate*

Laura Sarkisian joined Tyton Partners as an associate in 2014 to concentrate on supporting growth within the education sector. Her background is focused in finance and economics and includes research on the affordable housing and healthcare markets.

OUR PARTNERS

ABOUT THE JOYCE FOUNDATION

The Joyce Foundation invests in solutions to pressing economic and social challenges that affect the quality of our lives, the well-being of our communities and the fairness of our society. Its primary geographic focus is the Great Lakes region, but it has national reach and impact. Joyce moves ideas to action by supporting the development, testing and advancement of policies to better educate our children, expand economic opportunity, increase participation and responsiveness in our democracy, clean up and restore our natural environment, diversify arts and culture and protect communities from gun violence. It also supports programs to improve the performance of institutions and systems whose actions determine if policy solutions are effective. Founded in 1948 and based in Chicago, Joyce has assets of \$950 million and distributes approximately \$45 million annually.

For more information, please visit www.joycefdn.org or follow us at [@JoyceFdn](https://twitter.com/JoyceFdn).

ABOUT THE COMMISSION ON ADULT BASIC EDUCATION

The Commission on Adult Basic Education is organized to advance national and international adult education and literacy opportunities for all persons. The purposes of COABE are:

- To promote adult education and literacy programs, including Adult Basic Education, Adult Secondary Education, English for Speakers of Other Languages, Family Literacy, Skills Development, Workforce Development, and other state, federal, and private programs which assist undereducated and/or disadvantaged adults to function effectively
- To provide leadership in advancing the education of adults in the lifelong learning process by unifying the profession, developing human resources, encouraging and using research, communicating with the members and the public, offering other member services, and otherwise advancing adult education and literacy
- To advocate the development and dissemination of publications, research, methods, and materials, resources, and programs in adult education and literacy
- To conduct and/or sponsor professional development conferences and activities that provide a forum to provide staff development and advance adult education and literacy

To learn more about COABE, visit www.coabe.org.

ABOUT TYTON PARTNERS

Tyton Partners, formerly Education Growth Advisors, is the leading provider of investment banking and strategy consulting services to the global knowledge sector. Built on the tenets of insight, connectivity, and tenacity, Tyton Partners leverages in-depth market knowledge and perspective to help organizations pursue solutions that have lasting impact.

As an evolved advisory services firm, Tyton Partners offers a unique spectrum of services that supports companies, organizations, and investors as they navigate the complexities of the education, media, and information markets. Unlike most firms, Tyton Partners understands the intricacies and nuances of these markets and plays an integral role in shaping the efforts that drive change within them. The firm's expertise is predicated on its principals' years of experience working across market segments – including the preK-12, postsecondary, corporate training, and lifelong learning sectors – and with a diverse array of organizations, from emergent and established private and publicly traded companies, to non-profit organizations, institutions, and foundations, to private equity and venture capital firms and other investors.

Tyton Partners leverages its deep foundation of transactional and advisory experience and an extensive global network to make its clients' aspirations a reality and catalyze innovation in the sector.

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