

BACKGROUND

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Financial Technology and Parental Choice in Education

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Abstract

Two seemingly unrelated ideas—parental choice in education and financial technology—are impacting the lives of more individuals and families today than ever before. And these policy and fiduciary changes are overlapping in the form of education savings accounts. With an account, the state deposits a portion of a child’s funds from the state funding formula into a private account that parents use to buy educational products and services. Lawmakers in six states have enacted these accounts. As more families use these accounts to customize their children’s education, states will need flexible ways to allow families to make individual transactions. Financial technology, or “fintech,” in the forms of online banking and digital wallets is becoming common around the world and slowly penetrating U.S. consumer markets. This technology can be a way to improve the funding of parental choice in education. State lawmakers should consider the technology available in fintech as they design education savings accounts for their state, while state and federal lawmakers should not impede with regulation the spread of fintech in education or consumer finance.

Introduction

In November 2016, India’s Prime Minister Narendra Modi declared 86 percent of the country’s printed currency would be recalled and replaced.¹ Such a move by the world’s second most populous country is striking not just because of the impact on hundreds of millions of individuals but because a large, scalable alternative must take the rupee’s place. Market forces responded, and a mobile application called Paytm that allows for digital payments between

KEY POINTS

- U.S. policymakers and existing financial institutions should be ready to adapt new financial technologies (“fintech”) to education and financial innovations.
- Some district schools and education savings account laws are already using fintech in the form of digital wallets and online payments to private education vendors.
- State lawmakers considering education savings accounts for their state should allow for the use of mobile money to give parents and students access to a wide range of educational products and services.
- Lawmakers should allow the consumer finance market to drive fintech innovations and then use such innovations to give families more quality learning options through education savings accounts.
- Additionally, state policymakers should issue requests for proposals to outsource full or partial implementation of education savings accounts to private organizations.

This paper, in its entirety, can be found at <http://report.heritage.org/bg3270>

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consumers and vendors has “become the market leader,” according to the *Wall Street Journal*.² Paytm’s sudden prominence is part of a global financial trend that spans national boundaries and is causing lawmakers to consider the potential impact of cashless transactions on public policies.

But first, these global developments deserve a sense of scale. India is replacing the nation’s largest bank notes—500-rupee and 1,000-rupee bills—to counter a wave of corruption and counterfeiting, according to the *Journal*.³ The recall’s unintended consequence is that it created a market for digital wallets and other financial technology (“fintech”) services to replace cash. The *Journal* says India’s Paytm has 225 million mobile wallet customers, a figure twice as large as the number of people who daily use Snapchat, the popular mobile application that allows individual to share videos.⁴ India’s market for mobile money is still growing, and other fintech providers such as Samsung Mobile and WhatsApp are poised to compete with Paytm.

Companies offering similar services are upending cash transactions in other countries, too. M-PESA, for example, has swept through Kenya and expanded into other parts of Africa over the past decade.⁵ In 2007, some 20,000 Kenyans used M-PESA to transfer money to other M-PESA users via mobile phones. Today, 30 million consumers in 10 countries, including Albania, Egypt, and Tanzania, use M-PESA to make everyday purchases, pay bills with their smartphones, and transfer funds to other users.⁶

Meanwhile, fintech has quietly entered the K–12 education service sector in the U.S. and could revo-

lutionize families’ access to public and private educational options. Some traditional school districts are using digital-wallet technology to help manage district finances. State lawmakers are adopting new learning opportunities for families and students such as education savings accounts and adopting or considering the adoption of mobile money technology. When paired with education savings accounts, fintech innovations can give students multiple learning options simultaneously while also protecting taxpayers from misuse of funds.

The intersection of education savings accounts and mobile money provides a glimpse of the future of learning in the U.S. Technology allows students to access educational content anytime, anywhere.⁷ Parents and students should be able to choose where and how a child learns, even customizing a student’s education to meet that student’s unique needs.

With the marriage of education savings accounts and fintech, the future is now.

Students in Arizona, Florida, Tennessee, and Mississippi (and soon North Carolina) are using education savings accounts to create unique learning experiences.⁸ With an account, the state deposits a portion of a child’s funds from state resources into a private bank account that parents use to buy educational products and services.

Parents choose to remove their children from a public school to use an education savings account full time. Families can hire personal tutors, find classes online, pay for public school services like extracurricular activities and individual classes, and pay for private school tuition—to name a few possible uses.

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1. Raymond Zhong, “India to Replace Largest Bank Notes,” *Wall Street Journal*, November 9, 2016, <https://www.wsj.com/articles/india-to-phase-out-current-500-and-1000-rupee-bank-notes-1478619693> (accessed September 25, 2017). See also Central Intelligence Agency, *The World Factbook*, “County Comparison: Population,” <https://www.cia.gov/library/publications/the-world-factbook/rankorder/2119rank.html> (accessed September 25, 2017).
 2. Corinne Abrams and Newley Purnell, “Mobile Wallet Paytm Hits Pay Dirt Amid India’s Cash Crackdown,” *Wall Street Journal*, May 31, 2017, <https://www.wsj.com/articles/mobile-wallet-paytm-hits-pay-dirt-amid-indias-cash-crackdown-1496232035> (accessed October 3, 2017).
 3. Zhong, “India to Replace Largest Bank Notes.”
 4. Abrams and Purnell, “Mobile Wallet Paytm Hits Pay Dirt.”
 5. See Jonathan Butcher, “The Future of Money and Giving Every Child the Chance at a Successful Future,” Goldwater Institute *Policy Brief*, May 9, 2016, <http://goldwaterinstitute.org/en/work/topics/education/education-savings-accounts/the-future-of-money-and-giving-every-child-the-cha/> (accessed September 25, 2017).
 6. Vodafone, “10 Years of M-Pesa,” <http://www.vodafone.com/content/index/what/m-pesa.html> (accessed September 25, 2017).
 7. One such hypothetical scenario was envisioned in Lewis J. Perelman, *School’s Out* (New York: Avon Books, 1992).
 8. Nevada lawmakers enacted education savings accounts in 2015, but the legislature and governor have not provided funding for the accounts yet. For more information, see Sandra Chereb, Ben Botkin, and Sean Whaley, “Nevada Senate Reaches Deal to End Budget Stalemate,” *Las Vegas Review Journal*, June 4, 2017, <https://www.reviewjournal.com/news/2017-legislature/nevada-senate-reaches-deal-to-end-budget-stalemate/> (accessed September 25, 2017).

Parents and students can choose one learning option or several at the same time.

Each account law is different, but the accounts have three important features in common:

1. Parents and students choose where and how a student learns. Students can customize their education and do not have to use an account to attend a public or private school full time.
2. Families purchase educational supplies or pay tuition and fees using account funds populated on prepaid debit cards, with online services like digital wallets, or through a combination of these methods.
3. State agencies or their proxies, such as nonprofit scholarship-granting organizations, audit the accounts to make sure parents and students have made lawful educational purchases.

In Arizona, parents use prepaid Visa cards to make transactions, while Florida families use a combination of reimbursements and direct payments from a nonprofit scholarship organization to an educational vendor of a parent's choice. Currently, state agencies and their proxies are adopting or considering the adoption of financial technologies such as mobile payments in order to give students more choices with the accounts and prevent misuse.

This *Backgrounder* explains how digital wallets work in consumer finance and why parental choice in education can benefit from fintech. Companies like PayPal and Square, along with M-PESA and Paytm, provide examples of how digital wallets are changing the way people are using money around the world. These examples, along with proposals for ways to implement education savings accounts in Nevada, demonstrate how such technology will work when combined with education savings accounts.

This paper also provides demographic data describing who is using online banking systems

and mobile financial applications on their smartphones today and the implications for current and future generations of parents and their education choices for their children. This report explains how mobile money and education savings accounts can bring more opportunities to parents and students—and more financial transparency to lawmakers and taxpayers.

Education Savings Accounts and Parental Choice in Education

In the past 25 years, state lawmakers have enacted dozens of laws allowing families to use public funds or charitable contributions to scholarship organizations to pay for private school tuition. More than half of U.S. states give families and students such opportunities.

Today, K–12 private education options take three forms: vouchers, tax-credit scholarships, and education savings accounts.

- **Vouchers.** A voucher is a coupon representing public funds that a parent uses to pay tuition at a private school. Wisconsin operates the nation's oldest voucher law, the Milwaukee Parental Choice Program (MPCP). MPCP has allowed low-income students to choose private schools since 1990.⁹ As of this writing, eligible children in 23 states and the District of Columbia can use a K–12 private school voucher to attend a private school.¹⁰ Furthermore, under the federal Individuals with Disabilities Education Act (IDEA), the federal law concerning children with special needs' learning experiences, public schools can give families a voucher to attend private school when district schools are not equipped to provide services for children with certain diagnoses.¹¹
- **Tax-credit scholarships.** Under tax-credit scholarship laws, individuals and/or businesses make charitable contributions to nonprofit organizations that award private school scholarships

9. Milwaukee Parental Choice Program, Wisconsin State Legislature, Statute 119.23, <https://docs.legis.wisconsin.gov/statutes/statutes/119/1/23> (accessed September 25, 2017).

10. American Federation for Children, "Types of Private School Choice Programs," <https://www.federationforchildren.org/school-choice-america/programs-qualifications/> (accessed September 25, 2017).

11. See U.S. Department of Education, Individuals With Disabilities Education Act, Title 20, Chapter 33, Subchapter II, "Children Placed In, Or Referred To, Private Schools By Public Agencies," <http://uscode.house.gov/view.xhtml?path=/prelim@title20/chapter33&edition=prelim> (accessed September 25, 2017).

to eligible children. Donors receive a tax credit for their donations. Florida operates the nation's largest such scholarship system, with more than 100,000 children accessing a scholarship, according to the state's largest scholarship-granting organization.¹²

- **Education savings accounts.** Education savings accounts are the latest way that parents can choose where and how their children learn. With a voucher or tax-credit scholarship, families can choose a particular school for a child. But with an education savings account—as enacted in Arizona, Florida, Tennessee, Mississippi, Nevada, and North Carolina—parents can customize their children's education. With an account, the state deposits a portion of a child's funds from the state funding formula into a private account that parents use to buy educational products and services for their children. Parents can buy online classes, hire a personal tutor, or pay private school tuition, to name a few possible uses—and they can pay for all of these services simultaneously if they choose.

Education Savings Accounts and the Need for Fintech

Since parents can choose so many different learning options with an account, education savings accounts are a learning option that fits a new century marked by on-demand services, from television to transportation. And because the accounts offer families different ways to educate a child, from home-based instructional practices to online classes and beyond, states need more flexible ways to finance children's learning experiences. It is no longer enough for a state department of education to write a check to a school district, which then pays for school budgets, or issue a K-12 private school vouch-

er to a family or private school. Families need to be able to pay for more than one educational product or service simultaneously.

Arizona operates the nation's oldest education savings accounts.¹³ The state distributes prepaid Visa cards to Arizona account holders and makes quarterly disbursements into each account with a child's funds from the state formula. Families use the cards like a credit or debit card. State agencies limit the Merchant Category Codes available to the cards so that parents can only use their child's account for educational products and services listed in state law.¹⁴ For example, parents can swipe the account card at an educational therapist's payment terminal, but a gas station's credit card terminal will block the charge.

Parents complete expense reports each fiscal quarter. The state department of education reviews the reports before making the next disbursement in order to monitor misuse—a challenging step in the process for an office with a small staff. Arizona's Auditor General reviewed the agency's practices in 2016 and said:

The Department has established various processes to help ensure program monies are spent appropriately, including preventing transactions at merchants whose goods and services are not related to education.... The Department should develop and implement policies and procedures for more frequently and systematically monitoring spending using transaction reports that are generated by the bank's electronic, online system.¹⁵

Some 3,500 children—some with special needs, others from failing district schools or part of active-duty military families, to name a few categories of eligible students—are using Arizona's accounts today.¹⁶

12. Step Up for Students, "Basic Program Facts about the Florida Tax Credit Scholarship," <https://www.stepupforstudents.org/newsroom/basic-program-facts/> (accessed September 25, 2017).

13. See Arizona Revised Statutes, Title 15, Chapter 19, Article 1, §§ 15-2401 to 15-2404, <http://www.azleg.gov/arsDetail/?title=15> (accessed September 25, 2017).

14. *Ibid.*, § 15-2402.

15. Arizona Auditor General, "Arizona Department of Education Performance Audit: Department Oversees Empowerment Scholarship Accounts Program Spending, But Should Strengthen Its Oversight and Continue to Improve Other Aspects of Program Administration," June 2016, Report No. 16-107, https://www.azauditor.gov/sites/default/files/16-107_Report.pdf (accessed September 25, 2017).

16. Arizona Department of Education, Empowerment Scholarship Accounts, "Empowerment Scholarship Account: Annual Program Growth Report," February 8, 2017, <https://cms.azed.gov/home/GetDocumentFile?id=589cc8b31130c00d4c087c29> (accessed September 25, 2017).

In 2017, Arizona lawmakers expanded the program so that all 1.1 million students attending a public school will have the chance to apply for an account by 2021.¹⁷ With such growth potential, Arizona policymakers must recognize the need for mobile money technology and the inefficiency of having state officials review every account purchase. Parents, students, taxpayers, and lawmakers need a system that allows parents and students to make multiple purchases each fiscal quarter, perhaps even multiple purchases each day, while limiting such transactions to lawful educational products and services.

The system needs to block unlawful transactions and facilitate payment to multiple vendors without using cash—all characteristics of the payment services becoming available today through financial technology.

Fintech: Mobile and e-Payment Systems Around the World

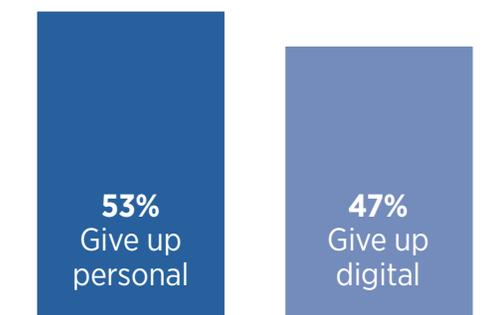
In 2015, *Inc.* magazine called the financial-services sector the “second-biggest target for disruption, after health care.”¹⁸ *Inc.* Senior Editor Maria Aspan cited consumer demand for more flexible payment services and “widespread frustration with big banks.” Yet even two years ago her pronouncement was less of a forecast and more of a report on current trends: A 2015 Gallup survey found that when asked to give up either the personal side of their banking activities (according to the survey, “You would no longer be able to visit a branch or call a call center”) or the digital side (“You would no longer be able to interact with your bank through mobile or online channels”), 53 percent of respondents said they would ditch the personal side first.¹⁹

While the preference for digital banking solutions in this survey was not overwhelming, respondents still preferred mobile banking. And as discussed below, the U.S. lags behind other nations when it

CHART 1

Poll: Giving Up Personal or Digital Banking

Q: If you had to give up one aspect of your relationship with your bank, the digital (you would no longer be able to interact with your bank through mobile or online channels) or the personal (you would no longer be able to visit a branch or call a call center), which one would you give up?



SOURCE: Beth Youra, “Most Bank Customers Would Trade Personal Banking for Digital Banking,” *Gallup*, April 27, 2015, <http://www.gallup.com/opinion/gallup/182813/bank-customers-trade-personal-banking-digital-banking.aspx> (accessed September 25, 2017).

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comes to the adoption of digital wallets—but technology and global preferences are making online banking and payments more familiar to U.S. consumers. (See, for example, the section of this paper entitled, “Who Is Using Mobile Money Today?”).

Fintech, including digital wallets and mobile money, describes financial transactions completed using digital or mobile technology.²⁰ Instead of writ-

17. Eligible students will be phased in over four years based on grade level. For more information, see S.B. 1431, 53rd Arizona Legislature, 1st Sess., <https://apps.azleg.gov/BillStatus/GetDocumentPdf/452775> (accessed September 25, 2017). Arizona voters may have the choice to repeal S.B. 1431 on the 2018 ballot. For more information, see Jonathan Butcher, “Interest Groups Threaten Access to Children’s Access to Educational Options,” *The Daily Signal*, <http://dailysignal.com/2017/08/11/interest-groups-threaten-arizona-childrens-access-educational-options/> (accessed September 26, 2017).

18. Maria Aspan, “Why Fintech Is One of the Most Promising Industries of 2015,” *Inc.*, September 2015, <https://www.inc.com/magazine/201509/maria-aspan/2015-inc5000-fintech-finally-lifts-off.html> (accessed September 25, 2017).

19. Beth Youra, “Most Bank Customers Would Trade Personal Banking for Digital Banking,” *Gallup News*, April 27, 2015, <http://www.gallup.com/opinion/gallup/182813/bank-customers-trade-personal-banking-digital-banking.aspx> (accessed September 25, 2017).

ing a check to pay for groceries or swiping a credit card at the gas pump, fintech allows for peer-to-peer or consumer-to-vendor digital payments with a computer or smartphone.

A full review of fintech, challenges to such technology in the U.S., the regulations involved, and a review of the leading companies in this field are beyond the scope of this paper. However, some background on this emerging economic and technology sector are in order to explain how and why mobile money matters for parental choice in U.S. education.

Fintech in the U.S. and Around the World

Pioneers in the fintech field are familiar to U.S. consumers: PayPal (210 million active account holders across 100 currencies) was one of the first to provide online consumer and merchant transactions, while ride-sharing applications like Uber (40 million riders per month) and Lyft (17 million per month in the U.S.) were among the first to bring mobile payments to the service sector.²¹

PayPal is experimenting with more than just online payment services and small merchant transactions. The company owns Venmo, a mobile application that allows individuals to send money directly to other Venmo users.²² In August 2017, PayPal announced a partnership with Skype that allows for peer-to-peer payments.²³ Skype is a boon to PayPal's efforts in the race for customers using mobile money as PayPal reports that individuals in 22 countries

have downloaded Skype's video chat application some 1 billion times.

Person-to-person payments are a rapidly growing sector within fintech: According to Aite Group, LLC, figures, Americans transacted more than \$147 billion in 2016, a nearly 50 percent increase from 2015.²⁴

While Venmo is not a household name like PayPal, industry experts predict change is coming. In June 2017, the *Wall Street Journal* wrote, "[Competitors] are trying to prevent Venmo from becoming to person-to-person payments what Google is to search or Facebook is to social media. The reason: Even if such services aren't profitable today, companies believe they are vital to getting and keeping consumers, especially coveted millennials."²⁵ In correspondence with an education savings account family in Arizona, one account holder said she is already using Venmo for her student because it has uses similar to PayPal without PayPal's traditional service fees.²⁶

Perhaps the biggest news in 2017 for peer-to-peer payment systems came in June, when Apple—the world's largest technology company according to *Forbes*—announced an expansion of its Apple Pay system that will allow individuals to send money to one another.²⁷ As of March 2016, Bloomberg reported Apple Pay had more monthly users (12 million) than similar applications for Samsung or Android devices (5 million each).²⁸

20. For more information, see Brian R. Knight, "Federalism and Federalization on the Fintech Frontier," *Mercatus Working Paper*, March 2017, p. 3, <https://www.mercatus.org/system/files/mercatus-knight-federalism-fintech-v1.pdf> (accessed September 11, 2017).

21. "Who We Are," PayPal, <https://www.paypal.com/us/webapps/mpp/aboutPayPal.com> (accessed November 2, 2017); Kia Kokalitcheva, "Uber Now Has 40 Million Riders Worldwide," *Fortune*, October 19, 2016, <http://fortune.com/2016/10/20/uber-app-riders/> (accessed September 25, 2017); and Kia Kokalitcheva, "Lyft Will Complete 17 Million U.S. Rides This Month," *Fortune*, October 25, 2016, <http://fortune.com/2016/10/25/lyft-17-million-rides/> (accessed September 25, 2017).

22. "How It Works," <https://venmo.com/about/product/> (accessed November 2, 2017).

23. PayPal, "You Can Now Send Money with PayPal in the Skype Mobile App," August 2, 2017, <https://www.paypal.com/stories/us/you-can-now-send-money-with-paypal-in-the-skype-mobile-app> (accessed September 25, 2017).

24. See Peter Rudegeair, "PayPal's Venmo Tool Is Envy of Apple, Big Banks," *Wall Street Journal*, June 27, 2017, B1, and James Rufus Koren, "As Millennials 'Venmo' Each Other Money, Banks Fight Back with Their Own Mobile Apps," *Los Angeles Times*, March 27, 2017, <http://www.latimes.com/business/la-fi-agenda-p2p-20170327-story.html> (accessed November 6, 2017).

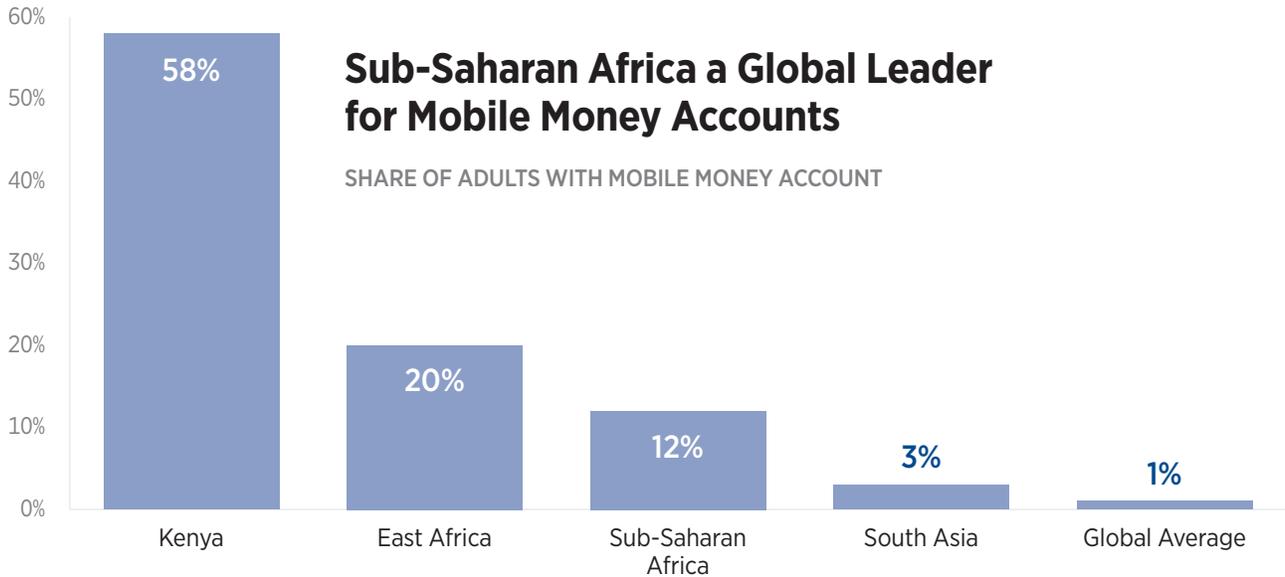
25. *Ibid.*

26. E-mail correspondence with Angie Rusch, November 27, 2017.

27. Kia Kokalitcheva, "Apple Debuts Peer-to-Peer Payments on iOS," *Axios*, June 5, 2017, <https://www.axios.com/apple-debuts-peer-to-peer-payments-on-ios-2433774813.html> (accessed September 25, 2017), and Kristin Stoller, "The World's Largest Tech Companies 2017: Apple and Samsung Lead, Facebook Rises," *Forbes*, May 24, 2017, <https://www.forbes.com/sites/kristinstoller/2017/05/24/the-worlds-largest-tech-companies-2017-apple-and-samsung-lead-facebook-rises/#35058783d140> (accessed September 25, 2017).

28. Michael Grothaus, "Apple Pay Leads Mobile Payments with 12 Million Monthly Users," *Fast Company*, March 2, 2016, <https://www.fastcompany.com/3057353/apple-pay-leads-mobile-payments-with-12-million-monthly-users> (accessed September 25, 2017).

CHART 2



SOURCE: Asli Demircug-Kunt et al., “The Global Findex Database 2014,” World Bank *Policy Research Working Paper*, April 2015, p. 12, <http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf> (accessed August 22, 2017).

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Even with such remarkable growth in mobile money among the world’s largest companies, the U.S. has been slow to adopt fintech compared to some developing nations. Sub-Saharan African countries have adopted much faster—a counterintuitive finding, since the U.S. has such a developed physical and digital infrastructure and is home to global Internet and computer hardware and software giants like Google and Apple. Around the world, only 1 percent of adults have a mobile money account and 1 percent have a mobile money account *and* a traditional account at a financial institution, according to the World Bank. Yet in Sub-Saharan Africa, 12 percent of adults have a mobile money account.²⁹ In East African Nations, 20 percent of adults have a mobile money account.

These international examples of mobile money provide a glimpse into how this technology can and will impact K–12 education in the U.S.:

- **M-PESA.** Vodafone, a mobile phone company, and its Kenyan affiliate, Safaricom, created M-PESA as a mobile phone application in 2007.³⁰ M-PESA’s model is similar to the digital wallet technology Nevada policymakers are considering for education savings accounts. M-PESA’s developers describe how this mobile money technology works:

The product concept is very simple: an M-PESA customer can use his or her mobile phone to move money quickly, securely, and across great distances, directly to another mobile phone user. The customer does not need to have a bank account, but registers with Safaricom for an M-PESA account. Customers turn cash into e-money at Safaricom dealers, and then follow simple

29. Asli Demircug-Kunt et al., *The Global Findex Database 2014*, World Bank *Policy Research Working Paper*, April 2015, <http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf#page=3> (accessed September 25, 2017), pp. 11 and 12.

30. Jonathan Butcher, “The Future of Money and Giving Every Child the Chance at a Successful Future,” Goldwater Institute *Policy Brief*, May 9, 2016, <http://www.goldwaterinstitute.org/en/work/topics/education/education-savings-accounts/the-future-of-money-and-giving-every-child-the-cha/> (accessed September 25, 2017).

instructions on their phones to make payments through their M-PESA accounts; the system provides money transfers as banks do in the developed world.³¹

Some 85,000 Kenyan merchants have signed up as Safaricom agents, helping consumers turn cash into e-money.³² The *Economist* estimates that 25 percent of Kenya's gross domestic product "flows through [M-PESA]."³³

- **India.** As mentioned earlier, what could have become a currency crisis in India has accelerated the growth of mobile money. Paytm's digital wallets fill a need for consumers, and the company is now India's second most valuable start-up.³⁴ Corinne Abrams and Newley Purnell report for the *Wall Street Journal* that "five million merchants in India accept payments using Paytm, five times the number that accept credit cards."³⁵ The technology is changing consumer behavior so quickly that analysts report millions of consumers are skipping credit cards altogether and making their first financial account a mobile account.³⁶ Paytm works much

like M-PESA. Individuals deposit cash into their Paytm account and pay bills, transfer money to other users, or make purchases over mobile networks or online with their digital wallet or smartphone application.³⁷ Paytm offers a mobile marketplace, similar to shopping on Amazon.com, and consumers can make purchases directly from their Paytm account.

- **Blockchain.** Blockchain is the digital technology that allows for the use of Bitcoins and other cryptocurrencies (currencies that individuals use for financial transactions without revealing personal identifying information but which require the use of mathematically generated codes to complete a transaction).³⁸ Developed in 2009, Bitcoin³⁹ was the first large-scale cryptocurrency based on blockchain and maintained by an independent computer network instead of a government. All computers in a blockchain network can view all the transactions in the network, oversight that replaces government or third-party oversight.⁴⁰ Blockchain is a ledger created by computer code that tracks financial exchanges.⁴¹ Wall Street analysts and large financial institu-

31. Nick Hughes and Susie Lonie, "M-PESA: Mobile Money for the 'Unbanked,'" *Innovations* (Winter/Spring 2007), https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2012/06/innovationsarticleonmpesa_0_d_14.pdf (accessed September 25, 2017).

32. Butcher, "The Future of Money and Giving Every Child," and Leslie Stahl, "The Future of Money," *60 Minutes*, November 22, 2015, <http://www.cbsnews.com/news/future-of-money-kenya-m-pesa-60-minutes/> (accessed September 25, 2017).

33. Butcher, "The Future of Money and Giving Every Child," and "Why Does Kenya Lead the World In Mobile Money?" *The Economist*, March 2, 2015, <https://www.economist.com/blogs/economist-explains/2013/05/economist-explains-18> (accessed October 3, 2017).

34. Abrams and Purnell, "Mobile Wallet Paytm Hits Pay Dirt."

35. *Ibid.*

36. Corinne Abrams and Debiprasad Nayak, "Could India's Cash Blitz Kill Off Cards, ATMs?," *Wall Street Journal*, April 29, 2017, <https://www.wsj.com/articles/indias-cash-crackdown-prompts-more-to-pay-by-phone-1493467234> (accessed September 25, 2017).

37. For more, see "Wallet FAQs," <https://paytm.com/care/add-money-faqs/> (accessed September 25, 2017).

38. For more, see Norbert Michel and Gerald Dwyer, "Bits and Pieces: The Digital World of Bitcoin Currency," Heritage Foundation *Backgrounder* No. 3047, September 16, 2015, http://thf_media.s3.amazonaws.com/2015/pdf/BG3047.pdf.

39. Bitcoin is built on blockchain technology, so although blockchain is a fundamental part of Bitcoin, blockchain is *not* responsible for Bitcoin's changes in value. Bitcoins were worth less than five cents each in 2010 but are valued at over \$4,000 each today. Additionally, the value of the Bitcoin market is now \$42 billion, according to MarketWatch. See, respectively, Oscar Williams-Grut, "Goldman Sachs: 'The Blockchain Can Change...Well Everything,'" *Business Insider*, December 2, 2015, <http://www.businessinsider.com/goldman-sachs-the-blockchain-can-change-well-everything-2015-12?r=UK&IR=T> (accessed September 11, 2017), and "Bitcoin (USD) Price," <https://www.coindesk.com/price/> (accessed October 2, 2017).

40. Mohit Kaushi and Sheel Tyle, "The Blockchain: What It Is and Why It Matters," Brookings Institution, January 13, 2015, <https://www.brookings.edu/blog/techtank/2015/01/13/the-blockchain-what-it-is-and-why-it-matters/> (accessed September 15, 2017).

41. Williams-Grut, "Goldman Sachs: 'The Blockchain Can Change...Well Everything.'"

tions consider blockchain to be an important part of the future of fintech. In 2015, the Brookings Institution called blockchain “a more interesting and profound innovation” than Bitcoin.⁴² *Business Insider* reports that a Goldman Sachs message to clients in December 2015 included the message that blockchain “can change...well [sic] everything.”⁴³

Fintech in Education

As these international examples demonstrate, consumer banking innovations in the U.S. have lagged behind other countries—with some notable exceptions. For example, ridesharing applications like Uber and Lyft are familiar to many, and these applications provide transportation on demand along with cashless payment.

Some traditional district schools are also sampling fintech and doing away with cash. In an interview for this report, Nancy Bui, principal at Cesar Chavez/Green Oaks Academy in California, explains that her school received a grant to use ClassWallet to manage teacher and student purchases of educational items.

Each teacher has a ClassWallet account and can make purchases for his classroom online in a closed system. That is, ClassWallet limits the items teachers can purchase with school funds for classroom activities and teaching materials while also providing access to sites like Amazon.com. Teachers log in to their ClassWallet website and can shop using familiar online retailers to buy educational materials such as books (the most common item teachers purchase for the classroom, according to Bui). The ClassWallet system helps make sure taxpayer funds are only used for allowable expenses by blocking the purchase of items outside the education sector.

Bui’s students also have ClassWallet accounts, and children can earn additional funds from their teachers through classroom activities. Students can buy certain items online, just like their teach-

ers, while still using familiar retail websites. Nancy says, “We run a survey about once per month to ask for items that kids might want to see in the store and then add those items to ClassWallet.”

As will be explained below, ClassWallet is also a pioneer in the field of fintech for private school choice, providing a useful tool in the provision of options such as education savings accounts.

Why Has the U.S. Been Slow to Adopt Fintech?

Financial technology services are growing in the U.S., but to date such advancements have reached a larger percentage of the population in other countries, particularly in developing nations. Analysts offer four explanations:

- **Americans are a relatively a highly banked population.** In 2015, the Federal Deposit Insurance Corporation (FDIC) reported that 7 percent of U.S. residents were “unbanked” (“meaning that no one in the household had a checking or savings account”), the lowest figure since the FDIC began tracking this metric.⁴⁴ Globally, 94 percent of adults in “high-income OECD [Organization for Economic Co-operation and Development] economies” have a bank account, while just 54 percent of adults in developing nations have an account.⁴⁵ Fewer adults in developing countries need to change their financial habits from traditional banking to mobile money. Fintech is a departure from traditional banking practices, so consumers—and banks—will need to adjust. Aspan, *Inc.*’s senior editor quoted above, says financial services have long been considered a “highly technical, highly regulated industry dominated by giant banks that resist disruption.”⁴⁶
- **Banks guard financial boundaries.** The highly regulated U.S. financial sector is slow to adapt to change. For example, state and federal regulators

42. Kaushi and Tyle, “The Blockchain: What It Is and Why It Matters.”

43. Williams-Grut, “Goldman Sachs: ‘The Blockchain Can Change...Well Everything.’”

44. Susan Burhouse et al., “FDIC National Survey of Unbanked and Underbanked Households,” Federal Deposit Insurance Corporation, October 20, 2016, p. 1, <https://www.fdic.gov/householdsurvey/2015/2015execsumm.pdf> (accessed September 25, 2017).

45. Demirguc-Kunt et al., *The Global Findex Database 2014*, p. 12.

46. Aspan, “Why Fintech is One of the Most Promising Industries of 2015.”

are currently at odds: The federal government's Office of the Comptroller of the Currency (OCC) appears ready to allow fintech companies to apply for national charters to operate as banks, but the Conference of State Bank Supervisors opposes the effort and supports a lawsuit to block this change.⁴⁷

- **OCC regulations still get in fintech's way.** Finance laws are bound by volumes of regulations, and with such large banks monitoring their interests, a rule-bound sector with a litigious climate adjusts slowly to new technology. Financial regulation and fintech are areas of study in themselves, and space does not permit a full review of all the rules. However, federal regulators should identify intrastate transactions (financial activity within a state) in which federal rules interfere with market innovation—and reduce such regulations. Likewise, if multiple states are engaged in activities mired in overlapping state laws, federal authorities such as the OCC could expedite such processes by developing consistent rules that apply to all parties and treat them equally with respect to fintech.⁴⁸
- **America is large, both in terms of market size and geography.** Writing for the *New York Times*, Chad Bray and Reuben Kyama say that the “United States, a far bigger economy than the others, has been much slower in adopting interconnected, speedy and secure solutions for making electronic payments. In fact, it is the size of the American market that is a major reason for the delay.”⁴⁹ Karen Webster, founder of PYMNTS.com, a leading fin-

tech resource, explains that some 14,000 banks issue credit and debit cards in the U.S. today. “It’s a whole lot harder to wrangle this ecosystem to the ground given the diversity of merchants and the engrained [sic] plastic card habits honed by consumers over the last 50 or so years,” Webster says.⁵⁰

Still, companies like Square and ClassWallet, along with M-PESA and Paytm, are slowly attracting consumers. “Finance is now riding an entrepreneurial wave,” *Inc.*'s Aspan says. And some large financial institutions are trying to keep up. Visa, for example, helps link Samsung and Apple mobile payment devices to payment terminals by creating a unique number for each device that is connected to your bank account. “If one of your accounts is compromised, new numbers can be created for the devices in the background without you ever having to know about it,” writes Klint Finley for *Wired* magazine.⁵¹ Arizona's education savings accounts have used prepaid Visa cards since the program's inception, so for Visa to be integrated already with fintech bodes well for the future of mobile money and parental choice in education.

Who Is Using Mobile Money Today?

Despite slow changes at government and institutional levels, younger individuals in the U.S. are already adapting. Since 2011, researchers at the Federal Reserve have annually released a report on the ways in which U.S. consumers are using mobile banking, defined as “consumer access to bank services using mobile phones” (such as checking one's account balance and paying bills via a bank's online portal).⁵² The survey results from 2,510 respon-

47. Office of the Comptroller of the Currency, “OCC Issues Draft Licensing Manual Supplement for Evaluating Charter Applications From Financial Technology Companies, Will Accept Comments Through April 14,” U.S. Department of the Treasury, <https://www.occ.treas.gov/news-issuances/news-releases/2017/nr-occ-2017-31.html> (accessed September 25, 2017); Neil Ainger, “States Gang Up to Kill U.S. Fintech Charter and Offer Alternative ‘Vision 2020,’” CNBC, May 15, 2017, <http://www.cnbc.com/2017/05/15/states-gang-up-to-kill-us-fintech-charter-and-offer-alternative-vision-2020.html> (accessed September 25, 2017).

48. For more recommendations, Knight, “Federalism and Federalization on the Fintech Frontier,” and Norbert Michel, “Money and Banking Provisions in the Financial CHOICE Act: A Major Step in the Right Direction,” Heritage Foundation *Background* No. 3152, August 31, 2016, <http://www.heritage.org/markets-and-finance/report/money-and-banking-provisions-the-financial-choice-act-major-step-the>.

49. Butcher, “The Future of Money and Giving Every Child,” and Chad Bray and Reuben Kyama, “Tap to Pay (Not So Much in the U.S.),” *New York Times*, April 1, 2014, https://dealbook.nytimes.com/2014/04/01/tap-to-pay-not-so-much-in-the-u-s/?_r=1 (accessed September 25, 2017).

50. Karen Webster, “UK's Lessons for US Mobile Payments Adoption,” PYMNTS.com, March 21, 2016, <https://www.pymnts.com/nfc/2016/uk-lessons-for-us-mobile-payments-adoption/> (accessed November 6, 2017).

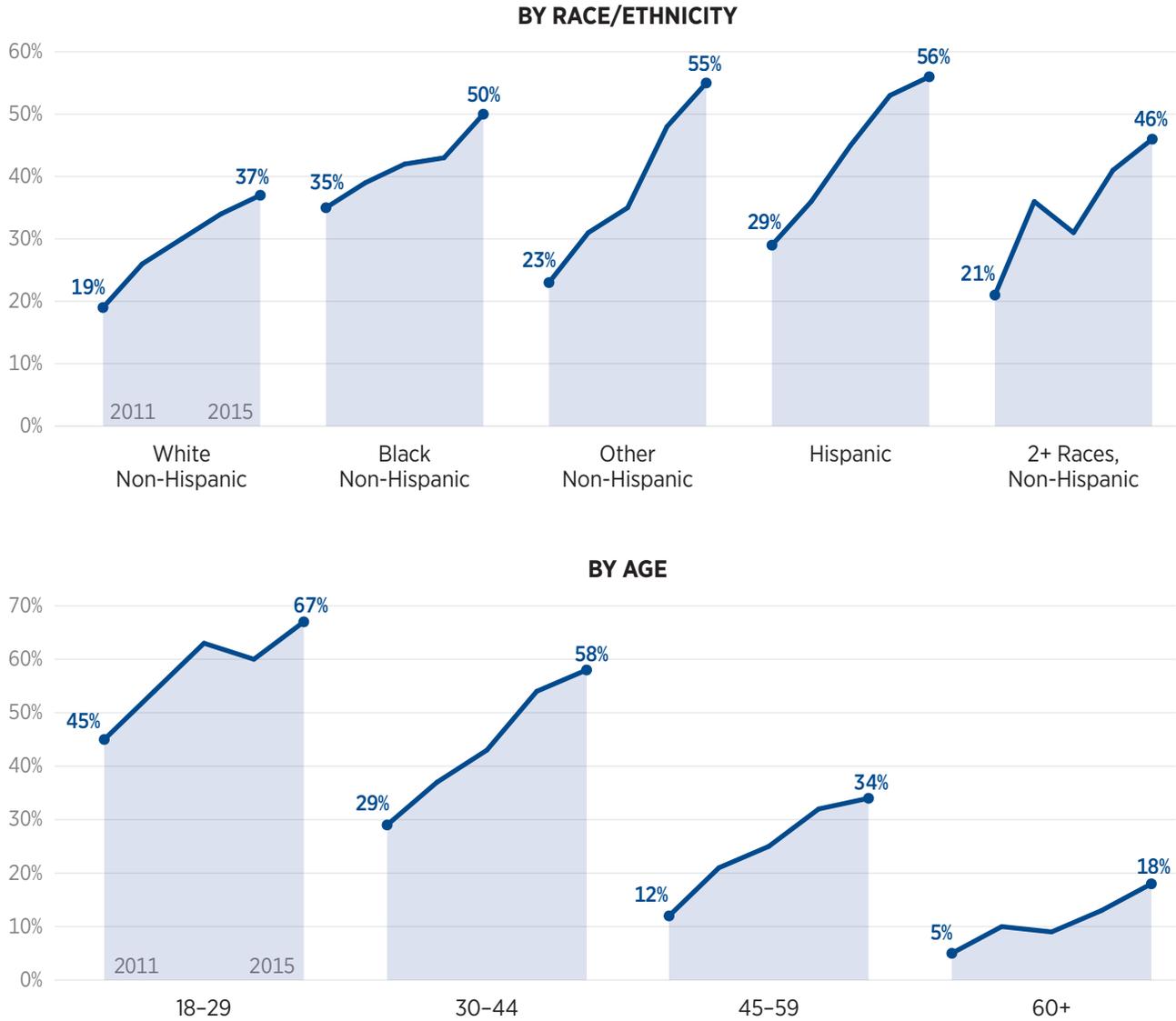
51. Klint Finley, “The Day Will Come When Your Credit Card Will Disappear,” *Wired*, June 7, 2017, <https://www.wired.com/2017/06/day-will-come-credit-card-will-disappear/> (accessed September 25, 2017).

52. Board of Governors of the Federal Reserve System, “Consumers and Mobile Financial Services 2016,” March 2016, <https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201603.pdf> (accessed September 25, 2017).

CHART 3

Mobile Banking Gaining Popularity Across Demographic Groups

PERCENTAGE USING MOBILE BANKING IN THE PAST 12 MONTHS



NOTE: Figures are for those with a mobile phone and a bank account.

SOURCE: Board of Governors of the Federal Reserve System, "Consumers and Mobile Financial Services 2016," March 2016, <https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201603.pdf> (accessed September 25, 2017).

dents are representative of the U.S. population.⁵³ The report is a glimpse into the aggregate consumer preferences of individuals from different generations and different ethnic groups.

Broadly speaking, more Americans are using mobile phones and mobile banking every day. For example:

- 87 percent of U.S. adults have a mobile phone;
- 77 percent of mobile phones are smartphones—“up from 71 percent in 2014 and 61 percent in 2013”;
- 43 percent of mobile phone owners that have a bank account used mobile banking in the past year—a 4 percentage point increase from 2014 and a 10 percentage point increase from 2013;
- Nearly one-third of smartphone users had made a mobile payment in the past year; and
- Among the “underbanked” (those that “had a bank account and had used one or more alternative financial services, typically from a nonbank, within the past year”) more than half (55 percent) had used mobile banking in the past year.

As Chart 3 demonstrates, Millennials (ages 18–34 in 2015) are the generation most likely to use mobile Internet services to manage their money—not a surprise, since this is the first generation to be raised with such technology readily available.⁵⁴ Sixty-seven percent of Millennials in the survey indicated that they used mobile banking in the past 12 months.

This finding is relevant to parental choice in education because this is the current and incoming wave

of parents making decisions about how and where their children learn. Furthermore, population studies find that Millennials outnumber Baby Boomers (ages 51–69 in 2015).⁵⁵

The use of mobile banking among each generation in the five surveys has increased over time. Among Baby Boomers age 60 and above, the use of mobile banking doubled between 2013 and 2015.

Chart 3 demonstrates that black and Hispanic respondents were more likely to use mobile banking in the last 12 months than their white peers.

Respondents from all ethnic groups saw their mobile banking usage increase over time, but black and Hispanic respondents reported greater usage of these financial services than white respondents. This finding is significant for parental choice in education because students from black and Hispanic families are more likely to attend failing schools—a category of schools from which children are eligible for education savings accounts.⁵⁶ Additionally, the majority of participating students in K–12 private school voucher programs in places such as Milwaukee, Wisconsin, and Washington, DC, are African American.⁵⁷

In demographic studies, Millennials and minorities overlap. The U.S. Census Bureau reports that the Millennial generation is “more diverse than the generations that preceded them, with 44.2 percent being part of a minority race or ethnic group.”⁵⁸ Taken together, these survey results indicate that those using mobile banking the most are also among the fastest-growing populations in the U.S. and are part of America’s largest living generation. This current generation of parents is particularly well suited for digital wallet and mobile finance technologies to be a part of choosing and accessing their children’s education.

53. Researchers admit, “While these steps have been taken to make the survey results generalizable to the adult U.S. population, some caveats apply to interpretation of the results, particularly for subpopulations.” *Ibid.*, Introduction and Appendix A.

54. For general generational indicators, see Richard Fry, “Millennials Overtake Baby Boomers as America’s Largest Generation,” April 25, 2016, <http://www.pewresearch.org/fact-tank/2016/04/25/millennials-overtake-baby-boomers/> (accessed September 25, 2017).

55. *Ibid.*

56. H.B. 2622, 50th Arizona Legislature, 2nd Sess., <https://apps.azleg.gov/BillStatus/GetDocumentPdf/213263> (accessed September 25, 2017).

57. Stephen Moore, “President Obama, Are You Listening?,” *Wall Street Journal*, May 1, 2015, <https://www.wsj.com/articles/president-obama-are-you-listening-1430522350> (accessed September 25, 2017), and Corey DeAngelis and Patrick J. Wolf, “The School Choice Voucher: A ‘Get Out of Jail’ Card?” University of Arkansas, College of Education & Health Reforms *Working Paper*, March 8, 2016, <http://www.uaedreform.org/downloads/2016/03/the-school-choice-voucher-a-get-out-of-jail-card.pdf> (accessed September 25, 2017).

58. News release, “Millennials Outnumber Baby Boomers and Are Far More Diverse, Census Bureau Reports,” U.S. Census Bureau, June 25, 2015, <https://www.census.gov/newsroom/press-releases/2015/cb15-113.html> (accessed September 25, 2017).

Can Fintech Improve Parental Choice in Education?

The rapidly growing number of private education options available to parents and students needs efficient, effective oversight to protect taxpayers and to help students find quality learning opportunities. To wit:

- **Auditors say current practices are effective—but may not be sustainable.** The 2016 Arizona Auditor General’s report on education savings accounts referenced above calls on the agency to improve its monitoring practices. While the auditor found that the amount of misspending from August 2015 to January 2016 amounted to only 1 percent of the total funds distributed, the agency needs more effective ways to oversee the accounts because of “the volume of the quarterly expense reports it reviews and based on its available staff resources.”⁵⁹
- **Education savings accounts are spreading around the country.** As of August 2017, lawmakers in six states have enacted education savings accounts since 2011: Arizona, Florida, Mississippi, Tennessee, Nevada, and North Carolina.⁶⁰ Policymakers enacted these laws with different eligibility provisions. In Arizona’s first account law, some 125,000 children with special needs were eligible.⁶¹ Today, some 1.5 million students across six states are eligible to apply for an account. (See Chart 4.)

Who Benefits?

Parents, students, and taxpayers benefit from high-quality delivery of education savings accounts through digital wallet systems. For example:

Parents. Parents benefit from upgrades to the way

education savings accounts are managed because they can buy educational products and services more easily and have access to their accounts anywhere so long as they have a mobile phone or access to the Internet. For example, in Arizona, parents use prepaid debit cards to make purchases with their child’s education savings account. Such purchases are easy for educational vendors that use credit card readers. But parents cannot make electronic fund transfers out of the accounts, which makes it impossible for parents to deposit funds in college savings accounts, for example.⁶² While PayPal is available to Arizona’s education savings account families, such transactions incur a fee.

Parents like David Jefferson would benefit from upgrades to Arizona’s accounts. David’s daughter, Morgan, has special needs, including muscular dystrophy, and uses an education savings account to help pay tuition at a school with services specifically designed for children like her. “My daughter has complex educational needs and the public school system struggled to meet her needs,” David says. “They had low expectations for her and set the bar for performance extremely low.” Morgan’s school offers additional services that have changed her life.

“My daughter is excited about learning,” David says. “In the past she would come home and tell me who she played with or what movie she watched in school. Now when she comes home she is talking about her reading lesson or how she worked with other children in the classroom. She has risen to the bar that has been set for her.”

An upgrade to Arizona’s education savings accounts’ payment system would make it easier for parents to pay smaller vendors, such as education therapists, using a mobile phone or to set up recurring bill drafts to cover private school tuition. “[Education

59. Arizona Auditor General, “Arizona Department of Education: Department Oversees Empowerment Scholarship Accounts Program Spending, But Should Strengthen Its Oversight and Continue to Improve Other Aspects of Program Administration,” Report No. 16-107, June 2016, https://www.azauditor.gov/sites/default/files/16-107_Report.pdf (accessed September 25, 2017).

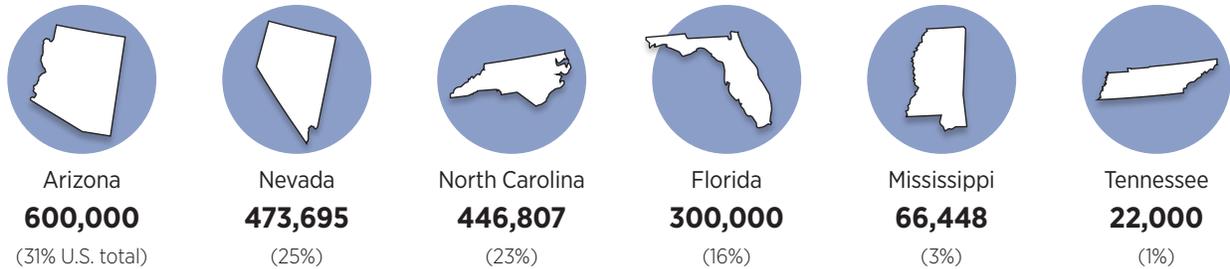
60. Jonathan Butcher, “More States Putting Parents in Charge with Education Savings Accounts,” Daily Signal, July 5, 2017, <http://dailysignal.com/2017/07/05/states-putting-parents-charge-education-savings-accounts/> (accessed September 25, 2017).

61. National Center for Education Statistics, “Table 51: Number and Percentage of Children Served Under the Individuals with Disabilities Education Act, Part B, By Age Group and State or Jurisdiction: Selected Years, 1990–91 through 2010–11,” *Digest of Education Statistics*, 2012, https://nces.ed.gov/programs/digest/d12/tables/dt12_051.asp (accessed September 25, 2017).

62. Between 2011 and 2016, Arizona families could deposit funds from their children’s education savings accounts into a 529 college savings plan (2011–2015) or Coverdell college savings account (2015–2016). This feature was removed in 2017, due in large part to parents’ inability to transfer funds into the accounts. See S.B. 1431, 53rd Arizona Legislature.

CHART 4

Education Savings Account Eligibility: 1.9 Million



NOTES: Figures are estimates. Mississippi's accounts are limited to 435 participants per year. Arizona's accounts will be available to all public school children in the 2020–2021 school year. North Carolina lawmakers appropriated funds for approximately 300 accounts in the 2018–2019 school year.

SOURCES:

- **Arizona:** Arizona Department of Education, October 1 enrollment figures, <http://www.azed.gov/accountability-research/data/> (accessed September 25, 2017), and author's calculations.
- **Florida:** U.S. Department of Education, National Center for Education Statistics, 2016 Digest of Education Statistics, Table 203.80, "Average Daily Attendance in (ADA) in Public Elementary and Secondary Schools, by State or Jurisdiction: Selected Years, 1969–70 Through 2013–14," https://nces.ed.gov/programs/digest/d16/tables/dt16_203.80.asp (accessed September 25, 2017); Florida Department of Education, "2016 SEA Profile," <http://www.fldoe.org/core/fileparse.php/7672/urlt/SEAProfile16.pdf> (accessed September 25, 2017); and author's calculations.
- **Mississippi:** U.S. Department of Education, National Center for Education Statistics, 2016 Digest of Education Statistics, Table 204.70, "Number and Percentage of Children Served Under Individuals with Disabilities Education Act (IDEA), Part B, by Age Group and State or Jurisdiction: Selected Years, 1990–91 Through 2014–15," https://nces.ed.gov/programs/digest/d16/tables/dt16_204.70.asp (accessed September 25, 2017).
- **Tennessee:** U.S. Department of Education, National Center for Education Statistics, 2016 Digest of Education Statistics, Table 203.80, "Average Daily Attendance in (ADA) in Public Elementary and Secondary Schools, by State or Jurisdiction: Selected Years, 1969–70 Through 2013–14," https://nces.ed.gov/programs/digest/d16/tables/dt16_203.80.asp (accessed September 25, 2017), and author's conversation with Tennessee Department of Education, November 3, 2015.
- **Nevada:** Nevada Department of Education, "Enrollment for Nevada Public Schools," <http://www.doe.nv.gov/DataCenter/Enrollment/> (accessed September 25, 2017).
- **North Carolina:** Charles A. Goldman, et al., "Options for Educating Students Attending Department of Defense Schools in the United States," RAND Corporation, 2016, pp. 129–133, https://www.rand.org/pubs/research_reports/RR855.html (accessed September 25, 2017); U.S. Department of Education, National Center for Education Statistics, 2015 Digest of Education Statistics, Table 204.70, "Number and Percentage of Children Served Under Individuals with Disabilities Education Act (IDEA), Part B, by Age Group and State or Jurisdiction: Selected Years, 1990–91 Through 2013–14," https://nces.ed.gov/programs/digest/d15/tables/dt15_204.70.asp (accessed September 25, 2017); U.S. Department of Education, National Center for Education Statistics, 2015 Digest of Education Statistics, Table 203.25, "Public School Enrollment in Prekindergarten Through Grade 8, by Region, State, and Jurisdiction: Selected Years, Fall 1990 Through Fall 2015," https://nces.ed.gov/programs/digest/d15/tables/dt15_203.25.asp (accessed September 25, 2017); and General Assembly of North Carolina, 2017 Session, Senate Bill 257, p. 137, <http://www.ncleg.net/Sessions/2017/Bills/Senate/PDF/S257v8.pdf> (accessed September 25, 2017).

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savings accounts have] provided an opportunity for my daughter to learn and grow," Jefferson says.

Taxpayers. Arizona's Auditor General also found that the state department of education had established processes to protect taxpayers and students from fraud or account misuse. But the auditor also had ideas to improve these procedures. Arizona's education savings accounts' prepaid debit cards operate much like an ATM card—without the feature that allows families to withdraw cash. The agency

activated certain merchant category codes for the cards—those codes that allow families to buy educational services or materials.⁶³ The agency switched off codes for all other items. As a result, families can use their children's savings account cards at a tutoring center—but not to buy airline tickets or hotel rooms.

This system successfully prevents many different attempts at fraud. However, some merchants have category codes that are allowed in the system but

63. Arizona Auditor General, "Arizona Department of Education: Department Oversees Empowerment Scholarship Accounts," p. 12.

ClassWallet

ClassWallet is a financial services provider serving schools and district offices and has designed a platform to manage education savings accounts. The company currently serves 1,200 schools in 14 states with tasks such as paper receipts, requisition forms, and processing invoices.

Today, ClassWallet has developed an online solution for education savings account administrators such as state departments of education. The online interface allows the agency to distribute funds from the department's education savings account budget to parents' accounts. Parents can make purchases online from vendors, including private schools, that are registered with the department. The platform has an important feature that allows purchases to be approved by SKU number—which means parents could shop at large online retailers like Amazon—but only purchase educational items. ClassWallet can block items the law does not authorize.

The platform allows the agency to see all parent transactions, while families can also see a history of their purchases. The agency can then use this resource to provide lawmakers and the general public with real-time access to reports on parent spending.

offer services or products that are not lawful under Arizona's savings account law (Walmart, for example). Since the department audits the accounts after parents have used the money each quarter, the agency may not determine misuse has occurred—either intentionally or otherwise—and the state must recoup the funds after the fact. Meanwhile, taxpayers may be liable for the loss in the interim and must rely on the agency to recover any lost money. The auditor recommended that the department should “continue to work with the bank and the Treasurer's Office to help prevent parents from circumventing program debit card controls.”⁶⁴

Education Savings Accounts and Fintech⁶⁵

Nevada policymakers were the first to consider pairing mobile money and education savings accounts.

Nevada lawmakers enacted the accounts in 2015, but a lawsuit stalled the program from being implemented.⁶⁶ As the court case unfolded, Nevada Treasurer Dan Schwartz's office remained responsible for collecting applications and preparing the accounts for eventual operation. The treasurer contracted with BenefitWallet, a subsidiary of Xerox, to design an online education savings account payment system.⁶⁷ BenefitWallet is a payment processing company designed to facilitate health savings account transactions and already serves some 2 million account holders.⁶⁸

In 2016, Nevada Treasurer staff said that BenefitWallet could protect students and taxpayers before, during, and after families make transactions with an education savings account. Educational vendors could register with the treasurer, and BenefitWallet would maintain a database of such providers. Parent transactions with unau-

64. *Ibid.*, p. 24. To help accomplish this recommendation, the Arizona Treasurer issued a request for proposal in May 2017 to find a private vendor to control the payment system. The treasurer was looking for a vendor that could restrict purchases with an account by product code (not just merchant category code); offer online bill payment options; and would continue to allow the treasurer to monitor account activity. However, the request for proposal (RFP) was cancelled. For more, see Office of the Arizona State Treasurer, “Special Bank Card Processing Solutions for Specific State Agencies: Request for Proposal No. 17-01,” May 23, 2017, http://www.aztreasury.gov/wp-content/old_site_files/rfps/RFP%2017-01%20Card%20Solutions.pdf (accessed September 25, 2017).

65. For more on ClassWallet, see <http://www.classwallet.com> (accessed September 25, 2017).

66. S.B. 302, 78th Nevada Legislature, 2015 Sess., <http://www.leg.state.nv.us/Session/78th2015/Reports/history.cfm?ID=705> (accessed September 25, 2017).

67. Butcher, “The Future of Money and Giving Every Child.”

68. Disclosure: The Heritage Foundation is a customer of BenefitWallet. BenefitWallet did not provide the Foundation with compensation or in-kind services for this research paper.

thorized vendors would be denied. For approved vendors, BenefitWallet would facilitate payment for a parent's purchase once the vendor is confirmed. For example, parents would use an online or mobile application to make a purchase or pay tuition at a private school. BenefitWallet would receive the parent's request and make sure the vendor was on the state's approved list. Then BenefitWallet would transfer funds from the child's education savings account to the vendor.

These services are similar to the process involving ClassWallet's system for teachers and classroom material purchases at the California public school described earlier.

Fintech and the Risk of Overregulation

Public policy problems have no perfect solutions. The perils and promises of fintech are becoming clear as of this writing—and we still have much to learn. The most fearsome examples of mobile money gone wrong were once only the stuff of science fiction: chips implanted in our bodies that connect us to our bank accounts (as portrayed in books like *The Mandibles* or movies such as *Total Recall*).⁶⁹ Real life is catching up to fiction: Some companies can implant chips in their employees' bodies that allow for activities like mobile payment.⁷⁰ In Wisconsin, a company called 32M has the technology to implant computer chips in their staff members. Staff can use the chips to make purchases in the company lounge, open doors, and even login to computers.

The convenience of such technology is matched by the threat to personal liberty: What if government can access our finances as easily as we can? What if government can automatically deduct our taxes from our account—charging us interest if we fail to initiate a payment on time? This activity is not hard to fathom. Already, students who are late on their federal college loan payments can have

their checks garnished automatically.⁷¹ The time has passed when the U.S. based its currency on the gold standard, and we are drawing near to the day when we will not even print cash. Credit could soon be the only way to conduct financial transactions.

The merits and vulnerabilities of these financial adjustments deserves a more thorough account than is available in this report. But in principle, if financial market forces are driving consumers to use fintech, government should not obstruct this development with rules and regulations. Likewise, government should not artificially promote fintech by forcing consumers to abandon cash.

Certain practices already in place in education savings account state policies can help protect parents, students, and taxpayers. For instance:

Education savings account funds are considered private funds once deposited in a parent's account. In states like Arizona, where parents use their child's portion of the state general fund to pay for the student's learning experience, the state cannot direct parents to spend their child's account funds on any specific vendor. The state can (and should) audit the accounts to make sure parents are spending the money on lawful educational expenditures, but state agencies cannot and should not have any control over parent and student choices with the accounts. The Nevada Supreme Court recognized this principle in its 2016 decision that ruled the accounts did not violate the state constitution:

We...conclude that funds placed in education savings accounts under SB [sic] 302 belong to the parents and are not "public funds"... Once the public funds are deposited into an education savings account, the funds are no longer 'public funds' but are instead the private funds of the individual parent who established the account.⁷²

69. Lionel Shriver, *The Mandibles: A Family, 2029-2047* (New York: Harper Collins, 2016).

70. Merrit Kennedy, "Wisconsin Company Offers to Implant Chips in Its Employees," NPR, July 25, 2017, <http://www.npr.org/2017/07/25/539265157/wisconsin-company-plans-to-start-implanting-chips-in-its-employees> (accessed September 25, 2017).

71. U.S. Department of Education, Federal Student Aid, "Collections," <https://studentaid.ed.gov/sa/repay-loans/default/collections> (accessed September 25, 2017). For more on ineffective and costly federal financial regulations, see Norbert Michael and David Burton, "Financial Privacy in a Free Society," Heritage Foundation *Backgrounder* No. 3157, September 23, 2016, <http://www.heritage.org/markets-and-finance/report/financial-privacy-free-society>.

72. *Schwartz v. Duncan*, Nevada Supreme Court, September 29, 2016, pp. 5 and 24, <https://cases.justia.com/nevada/supreme-court/2016-70648.pdf?ts=1475172735> (accessed November 28, 2017).

For future education savings account laws, this distinction should remain in place. While the state can prevent or sanction families for spending savings account funds on unlawful expenses, public officials and agencies should not compel families to spend their child's account monies on specific vendors' services.

Keep account funds and personal funds separate. Under all of the education savings account laws enacted so far, families cannot deposit personal funds in their child's education savings account. Obviously, if a family needs to use a savings account to help pay for educational therapy services or private school tuition, the family can do so—but such payments must be distinct from transactions made with an education savings account. By doing so, a family's private funds will not be subject to public audits or oversight as a result of education savings account participation.

Education savings accounts are not taxable income. Also consistent across the education savings account laws so far are provisions stating that savings account funds are not taxable income.⁷³ This feature helps to maintain a healthy separation between state and federal oversight and parental options in education.

Policy Recommendations

Policymakers should consider the following as they create or expand education savings accounts and integrate the appropriate financial technology:

- **Current states with education savings accounts should outsource program oversight and payment processing.** State policymakers should issue requests for proposals to outsource full or partial implementation of education savings accounts to private organizations. State departments of education should provide policy guidance concerning eligible educational services and products for purchase, but state lawmakers should look to companies that specialize in fintech in order to streamline transactions and prevent

the expansion of government activity. State agencies should not create new data systems or hire new staff. Instead, the state should contract with private entities to manage payment processing and audits. In other policy areas, states are taking advantage of such financial technology innovations. For example, in Missouri, the state contracts with Visa to facilitate child support deposits and transactions online; and in Arkansas, the state hired a mobile application company to allow taxpayers to pay taxes via smartphone.⁷⁴

- **For new education savings account laws, state lawmakers should outsource education savings account implementation.** Florida lawmakers made private school scholarship organizations responsible for implementing education savings accounts (called "Gardiner Scholarships") in that state.⁷⁵ Private organizations can be more responsive to parent and student needs and are less subject to the bureaucratic processes that slow government agencies. In Florida's example, private school scholarship organizations work with private schools and families and handle payments to private education vendors on a regular basis already—making education savings account responsibility a natural fit for the organization. As more state lawmakers consider education savings accounts, legislators should outsource education savings account administration. Departments of education are designed to carry out state law and oversee the implementation of federal law—education savings account administration is more suited to payment processing firms, such as the companies cited above in the creation of Nevada's account law and ClassWallet.

Conclusion

Just as established institutions and their interest groups have slowed the advance of mobile money and digital wallets in the U.S., so have teachers' unions and school board associations—lobbyists for the traditional school system—stalled the progress

73. See, for example, Arizona Revised Statutes, Title 15, Chapter 19, Article 1, § 15-2402, Item J; and S.B. 805, Florida Senate, 2014 Sess., lines 151-152 and 1954-1956, <https://www.flsenate.gov/Session/Bill/2014/850/BillText/er/PDF> (accessed September 25, 2017).

74. For more on these examples and others, see Butcher, "The Future of Money and Giving Every Child."

75. See Jonathan Butcher, "A Primer on Education Savings Accounts: Giving Every Child the Chance to Succeed," Heritage Foundation *Backgrounder* No. 3245, September 15, 2017, <http://www.heritage.org/sites/default/files/2017-09/BG3245.pdf>, and Step Up for Students, <https://www.stepupforstudents.org/> (accessed October 3, 2017).

of parental choice in education. But consumer and parent/student interest, along with changes in technology, are causing changes to both the financial and education sectors.

The advance of digital wallets in countries like India (home to 17 percent of the world's population) and Kenya, along with person-to-person payments coming from the world's largest technology company (Apple), have put mobile money in the headlines and on every smartphone.

The topics of mobile money and parental choice in education overlap because states with account laws such as Nevada, Florida, and North Carolina are using or considering the adoption of systems that incorporate digital wallets and other elements of fintech. Lawmakers should allow the consumer-finance market to drive fintech innovations and then use such innovations to give families more quality learning options through education savings accounts.

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