Can Fintech Resolve Public Benefit Obstacles?

A Change Machine Report on Public Benefits and Fintech

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Introduction

Change Machine builds financial security for low-income communities through people-powered technology. We believe in an equitable economy in which we all thrive. To achieve this, we must center the financial realities of low- to moderate-income Black and Latinx women in financial technology and policy. When our economy enables them to achieve their financial goals and build the lives they want for themselves and their families, all of us benefit. Grounded in the expertise and solutions of financial coaches and customers, our technology products reach social service organizations and public agencies nationwide, transforming how they work with people to achieve their financial goals. Our data and research shape lasting change that addresses the economic effects of slavery and patriarchal policies, removes barriers to financial security, and shrinks the gender and racial wealth gaps.

Benefits are one of the most pervasive sources of income—yet they are commonly underestimated in terms of both scope and frequency. In 2015, the U.S. Census Bureau reported that, between the ages of 20 and 65, about two-thirds of Americans will use one income support for at least a year and 39 percent of all American children receive a means-tested benefit by the time they reach age 18. In any given month, approximately 21 percent of Americans are enrolled in a welfare program.[1]

While millions of Americans receive benefits from both federal and state governments, they all must overcome several barriers to access. From navigating the enrollment process to recertifying after changes in household size and employment, these challenges prevent eligible people from receiving their fair share. Benefits recipients must also contend with income and expense management challenges as they maneuver the responsibility and burden of multiple income streams that are not intended to permanently lift families out of poverty. Rather, they are designed to smooth over catastrophic events or provide some consistent funding to help cover basic needs. This combination of factors should be recognized as a unique set of financial decision-making trials stemming from hundreds of benefits and affecting millions of Americans.

Modern government benefits provide important income sources that keep millions of American households from sinking into insolvency, living in homeless shelters, and facing hunger. Ranging from one-off emergency assistance grants to long-term disability programs, benefits are administered through an intertwined system of federal, state, and regional laws and regulations. In the last year, the COVID-19 pandemic has provided multiple examples of how the rise of the internet and financial technology (fintech) products has dramatically changed how benefits are created, administered, and distributed. In this brief, we will examine:

1. Insights and data from recent Change Machine projects that highlight structural weaknesses in the benefits system predating COVID-19.

2. How fintech can have a positive impact on Black and Latinx populations' access to and use of government benefits.

3. Why these technological innovations, despite offering greater access and efficiency, cannot solve structural weaknesses and may even exacerbate them.

4. Recommendations for how regulations and other accountability measures can be intentionally designed to address those obstacles.

1. CHANGE MACHINE HISTORICAL ANALYSIS OF CUSTOMER DATA

Change Machine serves thousands of program participants (customers) through its financial coaching programs. Financial coaches meet with customers across the country to identify financial goals and create financial action plans to achieve those goals. During the first meeting, coaches collect basic demographic and intake information such as income sources, savings and debt levels, credit profiles, use of financial products, and tax refund information. Financial information is periodically updated in subsequent meetings. Throughout the process, coaches and customers work collaboratively to develop different financial habits and to understand how to build stronger household balance sheets.

A. **Customer Use of Benefits:** To better understand how our customers interact with the benefits system, we analyzed data from across our platform, spanning the last five years, and identified 3,449 individuals receiving benefits at the time of their engagement. While many customers receive multiple benefits, the most common included:

Benefit Type	Number of Customers
Supplemental Nutrition Assistance Program (SNAP) or Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	2,417
Supplemental Security Income (SSI) or Social Security Disability Insurance (SSDI)	1,148
Temporary Assistance for Needy Families (TANF)	752
Housing Assistance	335
Unemployment Insurance (UI)	265

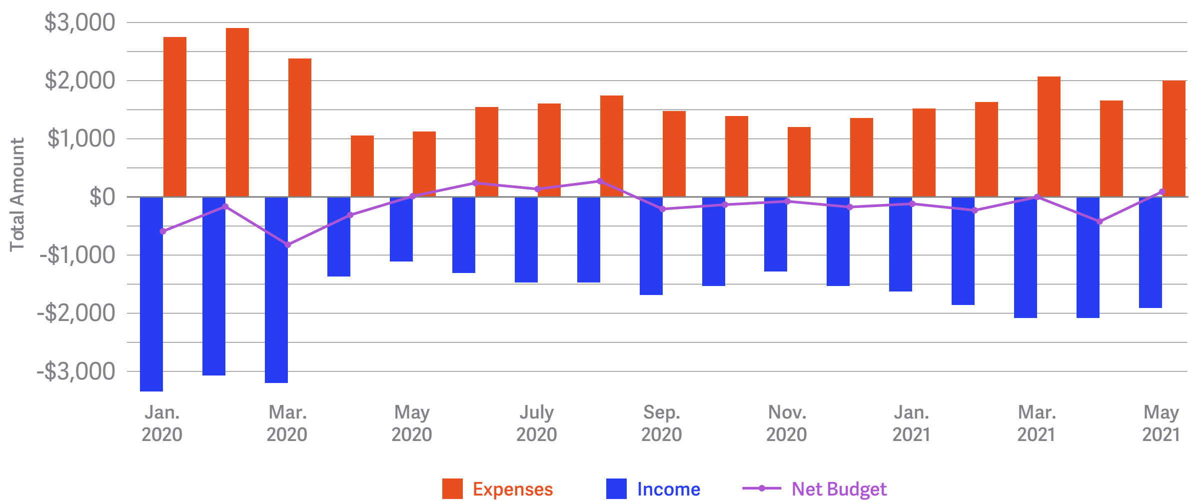
Customers receiving benefits are in financially vulnerable circumstances; the median customer reports $0 in savings at the time of their first meeting. Similarly, the median monthly income is $1,150 for single-person households and $1,417 for two-person households. These amounts are noticeably lower than 133 percent of the 2021 federal poverty line (the federal poverty line is $12,880 for one-person households and $17,420 for two-person households), a common threshold for benefits eligibility.[2]

Unfortunately, even those living above the poverty line are not necessarily financially secure. To be considered “in poverty” by the federal government, pre-tax income must be less than three times the bare-minimum food plan.[3] This arbitrary and outdated system fails to account for expenses like childcare, transportation, and education. Consequently, the income ceiling for benefits eligibility is damagingly low, forcing households to scrape by with minimal resources or to remain "in poverty" and therefore eligible for benefits.

Across our entire platform, the median monthly customer income is $2,000. This is significantly higher than the median income of those customers receiving benefits, but it is still insufficient to cover modern expenses.[4] After analyzing customer data from January 2020 through May 2021, we found that the median income from all combined sources was often less than the median expenses on a monthly basis. As Figure 1 shows, during this period the median Change Machine customer operated with a household budget deficit in all but five months. One Change Machine customer, Sophie, was responsible for managing finances for her elderly father and her disabled brother in addition to her own. Despite the fact that they were all receiving government benefits, Sophie had to maintain odd jobs to make ends meet. When the pandemic struck, Sophie was left without this additional income and the family was left in a precarious situation. Fortunately, with support from other family members, they were able to stay afloat.

Figure 1

Median Platform Budget



Despite the need for increased financial support, our data suggest that customers also struggle with accessing benefits. Based on our knowledge of customer income, participation in benefits programs is relatively low; for example, the proportion of eligible customers receiving SNAP and TANF benefits is 31 percent and 12 percent, respectively.[5] Even as estimates, rates as low as these indicate the prevalence of durable barriers to access.

As we think about the role of fintech, we can explore the question of access from a variety of perspectives. How can fintech ensure that everyone who is eligible has as many opportunities as possible to access multiple benefits? How can fintech distribute these funds faster and more efficiently? How can fintech give people more information and greater control over their benefits?

B. **Demographic Breakdown of Benefits Recipients**

Figure 2
Gender

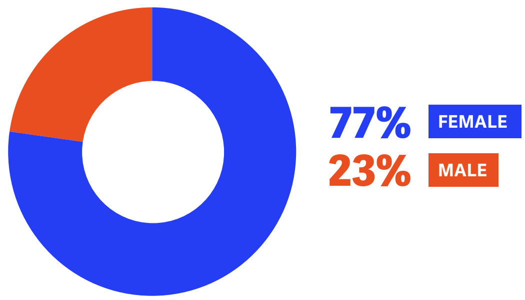


Figure 3
Race

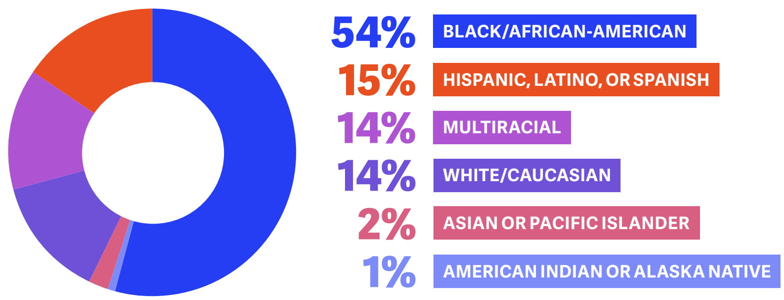
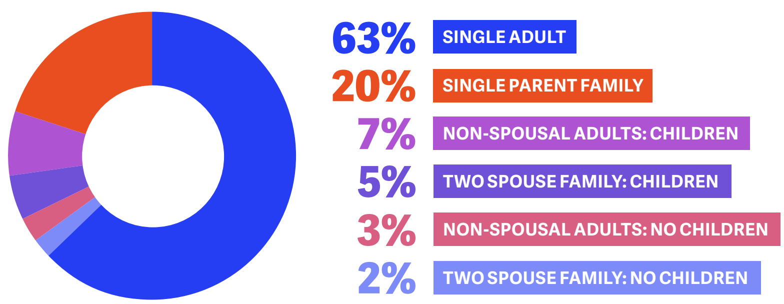


Figure 4
Household Composition



While examining Change Machine's data of benefits recipients, it is important to disaggregate by race and gender. Doing so allows us to have a more detailed picture of the populations we serve and those who are most financially vulnerable. The demographics of benefits recipients in our data are consistent with platform-wide statistics since financial coaching programs tend to serve low- to moderate-income households (unlike financial advisors or planners). As Figures 2–4 depict, women and Black individuals account for 77 percent and 54 percent of recipients, respectively. Latinx, multiracial, and white individuals account for a large proportion of recipients as well, with each category representing close to 15 percent of the data. Regarding household composition, the majority of records in our data belong to single adults. However, close to one-third of the data includes households with children. Disaggregating these records by race and gender is critical because it helps to identify disparities in benefits that are unique to certain demographics. Most importantly, this data further exposes the systemic racism and sexism replicated throughout institutions and how embedded ideas ultimately have poignant consequences in people's lives.

When we envision a well-functioning and inclusive benefits system, we start with the gross inequities that exist along lines of race and gender today:

- Female customers, on average, pay over $30 more in monthly rent than their male counterparts. These same female customers receive roughly $40 less in housing assistance than male customers. These disparities align with current research on housing, which finds that women, and especially women of color, face disproportionately less access to affordable housing.[6]

- There is a disparity between the unemployment income received by Black and white customers. The average monthly unemployment benefit received by white customers is $1,445, while the average for Black customers is only $1,066, a nearly 30 percent difference. The amount of unemployment someone receives is calculated based on the income they were receiving from the job they lost. Consequently, the racial income gap is exacerbated by the benefits system, further perpetuating financial insecurity for Black workers.

Benefits programs clearly suffer from the same racial and gender challenges that stain so many of the financial systems in the country. Black and Latinx women continue to face challenges around accessing and managing benefits. These ongoing challenges continue to put these populations in dire situations, as they navigate systems that in the best case assist them and in the worst only further financially alienate them. Addressing these issues will not have one universal solution, but rather will entail a diverse set of strategies and tools. If there is a silver lining to the COVID-19 pandemic, it is the potential for fintech to be one of these tools in addressing financial inequity.

2. FINTECH FOR GOOD: DELIVERING NEW RESOURCES IN CRISIS—GOVERNMENT PARTNERSHIPS AND CONTINUED INNOVATION

The ongoing pandemic offers valuable lessons on how fintech has changed the benefits system to meet the needs of the population at scale. There have been considerable steps taken to meet people's needs. However, even with these successes, there are equally valuable cautionary tales of how unregulated fintech will not solve gaps in the system and may even deepen them.

The COVID-19 pandemic has been an extreme stress test for distributing benefits in a virtual setting and has disproportionately affected the financial security of Black and Latinx individuals due to higher COVID-19 case rates, higher death rates, larger spikes in unemployment, and lower levels of cash liquidity before the pandemic. This meant that the most vulnerable individuals before the pandemic were also those most affected by the pandemic. Millions of people needed additional financial support as they faced illness, the loss of a job, or business challenges that caused food and housing insecurity. Millions of people became eligible for multiple COVID-19 relief assistance payments and other cash assistance programs. Due to shutdowns, people were forced to resort to different forms of engagement with government agencies, most notably using online and virtual platforms to apply, manage, and communicate with benefits representatives. The growth of fintech was visible before COVID-19, but the pandemic accelerated and definitively changed how consumers interact with their finances and benefits.

In a recent study, Code for America analyzed benefits applications for SNAP, WIC, LIHEAP, TANF, and Medicaid across all 50 states to determine the quality of user experience.[7] Within each state, the researchers asked whether applications for different types of benefits were combined, whether applications were digital, and how long it took to complete the applications, among other questions. In total, more than 75 applications were reviewed. While seven out of ten benefits applications were online, only three out of ten were mobile friendly. Out of all 50 states, zero have integrated all five benefits into one application. Currently, only 70 percent of benefits applications are online. The state of New York fares better than most other states with a site that has three applications available, is mobile friendly, and has a 30-minute completion time.

While we advocate for all benefits applications to be available online and in a format that is accessible and versatile in accordance with people's needs, we also propose a multiplicity of entry points into the benefits system. Given the increasingly digital nature of our society, universal applications are one approach to expanding benefits accessibility until automatic enrollment can be implemented. These digital upgrades would benefit both recipients and benefits systems. Regardless of the particular digital updates that are chosen for benefits systems, all states must do better to improve benefits access for those who need it most. Simultaneously, however, there must be pathways constructed for individuals who do not manage their benefits or finances digitally. Such is the case of one Change Machine customer, Lin, who lost his job during the pandemic and consequently fell behind on his rent payments. With support from his financial coach, Lin was able to apply and receive rental assistance and apply for jobs online. While Lin was able to navigate these processes on his own, he may have never discovered these resources without the assistance of his coach.

A. **Public-private ventures.** In order to grapple with the challenges brought about by the COVID-19 pandemic, government entities had to reconfigure how to distribute existing benefits and develop effective strategies to distribute new ones. As federal and state governments recognized the urgency of distributing benefits to meet basic needs, fintech played a critical role. Public-private partnerships, in which government agencies contracted with fintech providers, quickly created new products for benefit recipients. The best synergies were partnerships that provided opportunities for new products and rapid deployment, creating accessible and easier benefits applications through the internet and improved benefits management using fintech products.

   One successful example was the creation of Angeleno Cards in Los Angeles. The cards were a solution to a logistical problem. The city of Los Angeles had offered financial assistance available to its low-income residents, but city officials faced challenges disbursing money to individuals in a safe and accessible manner during the pandemic shutdown. This resulted in a partnership between the city, Mastercard, and Accelerator for America, an economic development nonprofit. Through their joint effort, they developed Angeleno Cards, prepaid cards loaded with funds that were mailed directly to recipients or distributed through trusted community organizations. The cards allowed unbanked individuals to avoid check cashing fees and use the entirety of the money for their own needs. As of October 2020, more than $36 million had been distributed to 38,000 families throughout Los Angeles.[8] The project implementation was relatively inexpensive, costing the city less than two percent of the funds distributed.[9]

One key takeaway of Angeleno Cards is that partnerships between public and private entities can be created and enacted quickly with positive results, especially when delays might push households into untenable situations. Additionally, fintech companies can nimbly address the needs of a community by prioritizing what is the most effective financial product for the intended recipients and allowing different entities to help with distribution. When innovation is dedicated to expanding reach and scope, fintech can play a critical supplemental role.

B. **Automatic enrollments as a starting point.** The ease and convenience of technology offers the opportunity to bring millions into the benefits system. From eligibility tests to required documentation, enrollment processes are difficult to navigate. To receive SNAP, applicants need proof of residency, tax returns, and school records. Yet this is information that government agencies already have access to and can use to pre-determine eligibility. The Coronavirus Aid, Relief, and Economic Security (CARES) Act's Economic Impact Payment (EIP) distribution was one of the new benefits that the federal government needed to hastily sort out during the COVID-19 pandemic. By utilizing data such as address, income, and bank account information compiled through tax filings and other government benefits, the federal government was able to dispense these funds automatically without the need for administrative work from most of the public. Although there were some points of contention at the onset of the pandemic, EIP dispersal, now in its third iteration, has become more efficient. The first round of payments made in March took three weeks to reach 89.5 million payments.[10] While the second iteration reached 100 million, there were issues with funds being sent to temporary accounts that were set up for the first payment.[11] The first batch of automatic payments in March 2021 included almost 90 million payments made through direct deposit and 150,000 mailed checks.[12]

Automatic enrollment could address some of the fears that benefit applications present for vulnerable populations. For example, domestic violence survivors may be wary of multiple applications for fear of being detected by their abusive partner. Potential applicants who hold government debts like tax debts or student loans may be unsure if they are eligible for certain benefits. For those who have benefits, fintech can help them manage life events that change their benefits eligibility, such as changes in income.

Automatic enrollment would also help cut through the dizzyingly complex benefits eligibility rules. For example, one Change Machine customer, Omar, has a social security number and documentation status that allows him to work legally in the country. Accordingly, he may be eligible for some tax benefits and other forms of assistance such as health benefits, but not for benefits such as SNAP. While Omar was aware of the benefits he was eligible for, many others who are undocumented or face complex immigration statuses may not be, rendering automatic enrollment critical. Millions of eligible undocumented individuals do not engage in benefits systems despite the fact that between 50 and 75 percent of these individuals in the United States pay federal, state, and local taxes.[13] These taxpayers are eligible for some benefits, but fear repercussions if they apply. Automatic enrollment would help to ensure that eligible undocumented individuals receive the benefits that they or their dependents qualify for.

C. **Enrollment on-ramps.** Automatic enrollment is one strategy for full participation. Another innovative strategy that COVID-19 relief explored is creating alternate access portals. The Internal Revenue Service (IRS) created a standalone online alternative access portal in 2020 to ensure that individuals who historically have not filed taxes received their EIP funds, allowing individuals to submit their information safely in order to receive the funds. The success of the portal can be demonstrated by the number of individuals who were able to utilize it. Between the portal's inception and September 2020, 7 million individuals signed up, largely those who did not have existing and current information on file with the IRS, Social Security Administration, or Veterans Affairs. The IRS has updated the portal and continues its outreach efforts to ensure that those who normally do not file gain access to EIP funds. The EIP online portal exemplifies the importance of creating multiple entry points into benefits systems, especially for those who have not engaged with these systems before. Nevertheless, the creation of the portal must be taken as an opportunity to learn about what works for consumers and what can still be fine-tuned to ensure accessibility.

   Fintech can help expand the EIP automatic enrollment innovations to other benefits. This would include using fintech to assess the benefits and complementary forms of assistance received by households to flag and enroll individuals in new benefits programs that they may be eligible for. Increases in overall participation would be important, but automatic enrollment would have other positive effects on benefits recipients. For example, providing automatic childcare benefits to working customers could help them maintain employment, in turn lowering their risk of losing housing or medical care. Similarly, providing food assistance to workers could facilitate healthier eating and may address preventable illnesses related to diet, thereby decreasing future medical expenses.

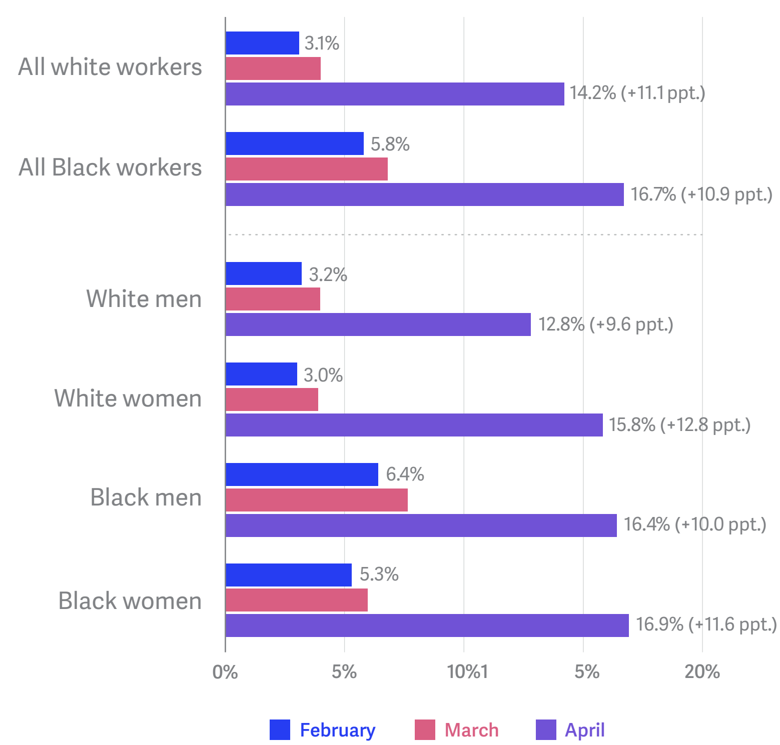
   Another example of providing multiple forms of access using technology is the Child Tax Credit (CTC) non-filer portal. A non-filer online portal was set up to provide increased access to the expanded CTC to eligible individuals who don't typically file taxes. This tool reflects the federal government's awareness that benefits access is closely connected to digital access. In a July 2021 Office of Management and Budget report to the White House on improving equity, the director included the following recommendation: "Streamline Administrative Burdens: Ensure at least two equally accessible means of applying for the program (one of which should be a mobile-responsive web-based application)."[14] This tool demonstrates fintech's capacity to expand digital access. Benefits participation can be increased by providing multiple application processes to fit a variety of individual needs. The CTC non-filer tool is a continuation of government entities' exploration of tech avenues to reach the population. The CTC non-filer tool and others of its kind show the potential for benefits and fintech to form partnerships that can expand benefits access.

D. **Good tech accelerates; outdated tech is a barrier.** COVID-19 not only showed how new technologies can scale up, but it also exposed how obsolete technologies can be an unacceptable hindrance. It is difficult to build innovative technology and even more difficult to maintain it. The digital unemployment processing systems in use (relying on telephones and old, slower systems) were obsolete and easily overwhelmed by the increased volume of applicants for unemployment claims. Telephone systems were quickly overwhelmed, and this in turn caused delays for applications and payments.[15][16] Although telephone systems were overwhelmed, they still played a critical role for individuals seeking assistance. Systems utilized by government agencies ought to be revamped as a whole to better serve the population and to withstand emergency situations such as those presented by COVID-19.

Figure 5

While unemployment skyrocketed for Black and white workers in the COVID-19 labor market, the unemployment rate is higher for Black workers

Unemployment rates by race, and by race and gender, February–April 2020



Note: White refers to non-Hispanic whites, Black refers to Blacks alone
Source: EPI analysis of Bureau of Labor Statistics Current Population Survey public data.

In February 2020, before COVID-19 shocked the global economy, the unemployment rates for Black and white workers were 5.8 percent and 3.1 percent, respectively.[17] By April, these rates skyrocketed to 16.7 percent and 14.2 percent.[18] These gaps are even more significant when broken down by gender. As Figure 5 shows, Black women faced the highest unemployment rate at 16.9 percent while white men faced the lowest unemployment rate at 12.8 percent.[19] Given these gaps, it's clear how the poor administration and distribution of unemployment benefits during the pandemic was inequitable. Updating these systems of data collection will reduce errors and, in turn, lead to a more equitable economy for all.

Additionally, good fintech can offer real-time, agile improvements in response to evolving situations. Another effort to support employment during the pandemic was the Payroll Protection Program (PPP) which distributed funds to small businesses. The program required an application, and the dispersal of funds potentially delayed by paperwork processing time. Initially, funds were to be dispersed through banks, but because funds were not reaching some of the hardest hit communities, fintech lenders were included in the Small Business Association's (SBA) list of approved PPP lenders.[20] This change proved critical, as Square Up reports that in processing PPP applications they were able to complete four-and-a-half months worth of work in just six weeks.[21] As of May 2021, nearly 38 percent of PPP loans made by fintechs were made to businesses in low- and middle-income tracts.[22] The best way to combat the inequity that is produced by outdated systems is to build system monitoring and maintenance into product and program partnerships at the outset of benefit collaborations.

E. **Fintech can help meet tomorrow's growing virtual needs.** Fintech proved critical in bridging digital engagement for those who were unbanked during the height of the pandemic. Fintech collaborations with benefits systems proved to be a motivating factor for unbanked individuals to adopt fintech as never before. In spring 2020, consumers' desire to receive EIP dramatically increased the adoption of fintech among the unbanked. Individuals may have opted for digital payment to receive funds more quickly or to avoid check cashing fees. Brookings reports that EIP recipients paid approximately $66 million in check cashing fees.[23] Paypal reported an increase of 7.4 million new accounts in April 2020 alone. This represents a 135 percent increase that is believed to have resulted from individuals signing up to access digital payment of their EIP.[24]

Benefits and money management expectations have changed as a result of the COVID-19 pandemic. According to a survey conducted by McKinsey, all financial decision makers, irrespective of income level, opened a fintech account during the pandemic.[25] Businesses also moved towards contactless or card payments during the COVID-19 pandemic in an effort to protect the health of their employees and customers. This trend is exemplified by the decrease in cash transactions. Data from Square users reveals that cash payments decreased to 33 percent by April 2020 and stabilized at that rate through August 2020.[26] Additionally, a Plaid survey found that 56 percent of individuals who did not use fintech prior to the pandemic would not be returning to "the world of bank branches and paper statements" while 62 percent believe this method will become the "new normal" post-pandemic.[27]

One of the driving factors in fintech adoption is its ability to save people time and money. According to the same Plaid survey, 57 percent of respondents noted that using fintech saved them time.[28] One Change Machine customer, Damian, began using fintech products during the pandemic and noted that he is still learning how to utilize these tools to better manage his finances. However, he is now able to access real-time information on his benefits rather than waiting to receive his bank statements in the mail. This allows him to make financial decisions more quickly and achieve his financial goals faster.

The COVID-19 pandemic has had an undeniable impact on the financial lives of the economically vulnerable. However, it has also propelled crucial public-private partnerships to distribute resources in a quick and efficient manner. As a result, fintech is here to stay as a necessary facilitator of the benefits and money management strategies of the future. As individuals have adapted to the changes set forward, they have learned how to deal with technology in many aspects of their lives, including their finances. In spite of these advancements, the pandemic also exposed the extent of the digital and financial divides that exist for Black, Latinx, and low- and middle-income individuals. It is important for benefits and fintech leaders to acknowledge these shortcomings and protect benefit applicants and recipients from greater financial insecurity.

3. FINTECH IS NOT AN ELIXIR: LIMITATIONS AND CHALLENGES

Despite the potential of fintech to positively impact the financial lives of low- and middle-income individuals, it must not be positioned as the sole elixir for financial inequity. There are greater structural issues and limitations that must be considered and addressed for fintech to reach its full potential. One looming obstacle is the digital divide, as vulnerable populations continue to face limited and inconsistent access to technology, such as high-speed internet, that is necessary to complete benefits processes online.

A. **Access challenges.** Today, millions of Americans who are eligible for benefit programs do not receive any financial support. The national participation rates for SNAP and TANF are estimated to be 85 percent[29] and 24 percent, respectively.[30] Individuals may not apply for benefits for a variety of reasons, including a lack of information about their eligibility, a lack of access to technology to complete applications, citizenship concerns, language barriers, and general confusion or distrust around providing information to a government entity.

The first step in improving the benefits system should be raising participation rates by expanding access to high-speed internet and broadband. The digital divide is still a major issue throughout the United States. Recent studies have found that 21 million people in the United States still do not have high-speed internet access.[31] Another study found that 157 million people with internet access do not have high-speed broadband access.[32] While the Biden administration's 2021 infrastructure plan intends to invest $65 billion to upgrade U.S broadband—a step in the right direction toward closing the digital divide—the impact of this investment remains to be seen.[33] In the meantime, individuals are at risk of being left behind due to their lack of sustained access to sufficient technology. Limited digital access prevents people from keeping eligibility information up to date and leads to loss of benefits. Even individuals with consistent access to technology may have trouble accessing or applying for benefits. As technology rapidly advances, individuals who do not regularly engage with technology or only do so in a limited scope may face challenges when trying to complete applications, upload documents, or update information.

One Change Machine customer, Daniel, found himself applying for unemployment online. He encountered difficulty navigating the application process and eventually gave up applying online to seek in-person assistance. Due to a COVID-19 shutdown, local offices could not help him through the process, and Daniel was referred to another nonprofit to assist him. Though Daniel was connected to the resources he needed, the process was complicated, took much longer than expected, and created additional stress for him. To minimize the impact of these factors and increase overall participation, the benefits system must work on closing the digital divide. Expanding digital access includes creating efficient online application processes and providing online assistance to streamline applications.

B. **Fintech must be inclusive of unbanked communities.** Another challenge at hand is the historic financial exclusion of various communities. As of June 2021, it is estimated that 14.1 million adults are unbanked.[34] Rates of unbanked people, however, remain highest in communities of color with Black (17 percent) and Latinx (14 percent) households being around five times as likely to be unbanked than white households (3%).[35] Being unbanked is an indicator of diminished access to benefits as, among Change Machine customers, being unbanked is associated with receiving $200 less in monthly benefits. A bank account may be a complicated proxy to draw from—it can signal a higher level of financial stability or that the customer may be regularly employed. However, it also reflects bank deserts, the real barriers of ChexSystems, lingering account fees, insufficient funds to meet balance requirements, or the distrust in banks that many customers share. As practitioners, we have to understand that having a bank account does not guarantee financial security.[36] To have a bank account does not necessarily mean that benefits recipients would automatically receive larger amounts. However, addressing some of these barriers through further research could establish that increasing banked rates can work in tandem with improving benefits access and amounts. One example of unbanked individuals navigating benefits barriers is shown in the initial disbursement of EIP debit cards during COVID-19 pandemic. Some individuals receiving EIP via debit cards rather than direct deposit into their bank accounts encountered difficulties retrieving funds from the cards, misinformation about who accepted the card, and other issues. These challenges were the result of a failure to prioritize equity and efficiency for the most vulnerable in the design of the EIP debit card program. Negative experiences such as this can lead to mistrust of banking and fintech in the future.[37] A 2019 Federal Deposit Insurance Corporation (FDIC) survey found that the second highest reason cited (36 percent) for remaining unbanked was distrust of banks.[38] Of those who had previously had a bank account over a year prior to the survey, 24.5 percent were not at all satisfied with their previous bank and 24.2 percent thought their bank's communications about fees were not all clear.[39] These grievances must be addressed in order for financially vulnerable populations to engage with financial institutions overall. There has been some progress made. For example, New York State has a little-known, low-fee basic checking account, Lifeline Accounts, that is rarely advertised but could be coupled with benefits distribution for the unbanked.[40] The administrative and logistical challenges of distributing benefits to unbanked individuals must be understood and addressed even while seeking to increase banked rates.

C. **Language continues to be a significant access barrier.** While there are policies in place to ensure that benefits applications are available in multiple languages, this is not the case for fintech products. Fintech products that are otherwise well-designed and impactful still fail to meet the needs of all Americans by ignoring those who are not native English speakers. There is an array of fintech products that could significantly help financially vulnerable populations, from building credit to starting savings. However, many of these products are only available in English. Having product terms and conditions in the customer's native language can ease the process of customers accessing those products. In their state of incorporation fintechs should follow federal and state laws regarding language services by providing products and services in multiple languages to ensure that all beneficiaries understand the options, rights, and responsibilities associated with their benefits.

D. **Fintech implementation needs a new set of accountability measures.** It is crucial that fintech is evaluated by its inefficiencies and flaws as much as its ability to scale. Through historic lessons and examples from COVID-19, we must be mindful that the promise of speed and scale is balanced with healthy skepticism and rigorous accountability. Many states have begun to adopt automation in their benefits applications. However, some of these systems are built on the assumption that applicants are trying to scam the system.[41] In turn, there are detrimental errors made by automated systems that unjustly disqualify individuals in need of assistance and punish others for overpayment. In 2013, Michigan introduced an automated fraud detection system that yielded 48,000 accusations of fraud.[42] Those accused were subsequently charged exuberant amounts, as high as $187,000, leading to evictions, bankruptcies, and even suicide.[43] An analysis of the accusations later found that 93 percent were incorrect.[44] These practices not only exacerbate gender and racial wealth gaps but also hinder the ability of people to rely on technology.

For many low-income Black and Latinx customers, inefficiencies abound in current financial management systems due to digital or financial exclusion. Electronic delivery of EIP funds decreased wait times exponentially.[45] While this alone should be hailed as a success, we must simultaneously evaluate the program's shortcomings. Individuals who lacked access to technology or the requisite technological savvy to update their information in the IRS portal were excluded from the advantages of digitally delivered EIP funds. As a result, during the first round of EIP deliveries at least 2.4 million individuals who did not receive an automatic payment were Black and at least 1.7 million were Latinx.[46] The Urban Institute noted in a survey of EIP recipients in May 2020: "Nearly three-quarters (73.7 percent) of non-Hispanic white adults reported receiving the payment, compared with 68.6 percent of non-Hispanic Black adults and 63.7 percent of Hispanic adults."[47] The administrative and financial burdens for low-income Black and Latinx individuals are high and extend from households to businesses. Despite the efficiencies that the PPP programs created, studies found that PPP loans were being received in white communities seven days faster than in Black communities.[48] Another example of inefficiencies created by government and fintech partnership is the difficulty that some individuals had accessing the first EIP funds via debit cards. These challenges were the result of a failure to prioritize equity and efficiency for the most vulnerable in the design of the EIP debit card program.[49] These shortcomings are a reminder that while fintech can be an excellent tool in achieving equity, there are larger scale issues that must be addressed for it to reach its full potential.

The CTC non-filer tool is a conceptually innovative method of expanding access to benefits. In practice, however, the tool provides a lesson in the importance of designing fintech to meet the needs of benefits recipients. The mobile version of the CTC non-filer online portal originally did not function correctly as the site did not resize to fit mobile devices, preventing users from seeing the entire screen.[50] Given that the low-income households accessing the non-filer portal are more likely to lack computer access, failure to create a sufficient mobile version of the site exacerbates digital exclusion and may decrease benefits access rather than expanding it. The tool also originally failed to indicate any affiliation with the United States government, potentially driving issues of mistrust that some individuals may feel regarding both online and traditional benefits processes.[51] Design flaws such as these deny digital and benefits access and prevent fintech from realizing its full potential to address these issues. An environment of limited accountability for government authorized fintech and benefits partnerships creates an opportunity for predatory fintech products to target consumers. Accountability measures must be implemented in fintech design to protect users. As the government continues to engage fintech in developing supplementary on-ramps to benefits programs, processes must be intentionally and expertly designed to avoid these design flaws and better meet user needs.

5. CHANGE MACHINE'S RECOMMENDATIONS

The COVID-19 pandemic has highlighted existing weaknesses in the current benefits system and the realm of fintech that hinder their ability to engage with and provide support to low- and middle-income Black and Latinx individuals. These weaknesses disproportionately impact vulnerable Black and Latinx individuals who are in need of benefits. By addressing the following priorities, we can improve the equitable lens of benefits in this new digital phase:

A. Access Roadblocks
B. Recipient Administrative Burdens
C. Design Equity
D. Automation Risks
E. Accountability

The longstanding fact that millions of individuals in the United States are in dire need of the assistance provided by benefits was elevated to the national political conversation by the COVID-19 pandemic. The pandemic also highlighted the weaknesses of government benefits systems and fintech, as many vulnerable communities faced difficulties attempting to access benefits and fintech systems. Both government agencies that distribute benefits and fintech companies were aware of the challenges that exist in servicing low- and middle-income Black and Latinx communities. However, addressing these challenges and improving benefits systems were long-term goals. The COVID-19 pandemic accelerated both the need and the timeline for a more efficient, accessible, and equitable benefits system. Fortunately, there is an opportunity for benefits agencies to leverage the advantages of fintech and the urgency of the current political moment to optimize the benefits application and management processes. Fintech offers significant promise to government bodies searching for ways to improve the benefits system. The creation of various and diverse avenues for individuals to connect with benefits will provide new on-ramps and expand access to benefit systems. By capitalizing on this model, existing benefits processes can be improved, providing much-needed aid to vulnerable communities.

Private fintech cannot be solely responsible for preventing financial exclusion. Government and fintech must work together to find solutions that expand access and address the needs of benefits recipients. Some stakeholders have heeded this call, establishing valuable public-private partnerships geared towards expanding benefits access. One such example is Code for America's partnership with the White House and the U.S. Department of Treasury to launch a bilingual CTC management tool.[52] Another model partnership is the Benefits 21 partnership between Mastercard and the Aspen Institute. This partnership brings together experts from public and private sector organizations to create and implement a modernized benefits system that is grounded in worker financial security.[53] Consequently, Change Machine's recommendations span both the design of fintech and the legislation that will regulate its application.

A. **Access Roadblocks: Internet and Banking Access.** Automatic enrollment, multiple enrollment opportunities, and universal applications provide opportunities to address the digital divide and expand access to benefits. Automatic enrollment addresses the digital divide by using fintech to handle application processes for everyone, including those with limited digital access. While automatic enrollment would provide an on-ramp for many tax filers, it is not an all-inclusive solution. Undocumented individuals, high cash-earners, permanently disabled individuals, and low- and middle-income individuals are not required to file taxes for a variety of reasons. To ensure that these people are included, policymakers must offer multiple benefits enrollment opportunities. Providing access for undocumented populations can occur when individuals apply for their Individual Taxpayer Identification Number or naturalization. This can also be an entry point for their children or dependents who are citizens and may otherwise be left out. Although some individuals may be unable to become citizens, there are a substantial number of benefits that can make an impact on their lives.

CALL TO ACTION — Benefits should leverage technology to become 100 percent participation programs:

- Current application processes like school registration, unemployment benefits, motor vehicle/driver's license registrations, or immigration applications should adopt an opt-out orientation for benefits.
- Bring together city and state tax agencies to identify data bridges that can pre-populate existing benefits applications especially for annual processes such as filing taxes or SNAP recertifications.
- Build additional, easy-to-navigate online portals and paper applications for the public who are most likely to be left behind because of lack of access (e.g., non-filers).
- Work with social service agencies for additional training support (such as for benefits enrollments, tax filing, and online bank account enrollment) and adopt targets for vendor renewals.

As referenced in section three, unbanked Change Machine customers tend to receive lower monthly benefit amounts. Government benefits systems and fintech can create meaningful opportunities to increase banking access by encouraging and facilitating recipients to create an online bank account during the benefits enrollment process. Benefits providers should work with partners to provide banking on-ramps at the point of application. Moreover, through this partnership, bank accounts can be designed with the needs of low- and middle-income customers in mind by including features such as eliminating minimum amounts to open accounts or measures that limit the withdrawal of amounts that trigger fees. Digital wallets are another option to increase access to financial and benefits management. Promoting increased banking access is important, as it can significantly impact a customer's financial stability.

CALL TO ACTION — Financial products should be focused on immediate, no-cost distribution of benefits:

- Provide options to become banked as part of the benefits application and renewal processes. Individuals should be provided the choice to sign up for an online banking relationship with vetted bank partners that is tailored to their needs.
- Continue to offer alternative financial services, such as prepaid cards, for benefits distribution as part of a multi-stage process in which alternative financial services offer a transition to a low-cost bank account within a few years.
- Work with existing best-in-class financial products, such as Lifeline Accounts, and integrate them into existing programs and increase their self-enrollment access through the internet.

B. **Recipient Administrative Burdens.** A universal application system is one method to address the digital divide and expand benefits access during the time period required for the creation and implementation of automatic enrollment. While the complex differences of city, state, and federal eligibility criteria seem to compel separate applications that cost time and bandwidth, the essential data is often similar across contact, household, income, and asset information. Requiring individuals to submit the same data-multiple times on various benefits applications unnecessarily and inefficiently shifts the administrative burden from benefits systems to individuals. A universal application would require the creation of one, localized online portal that allows individuals to apply for and manage all of their benefits by inputting their data once. This would not necessarily preclude agencies from adding additional criteria. Instead, it would consolidate as much basic information as possible. Partnering with fintech companies can simplify this process. A universal application would also reduce structural barriers to entry. This would be especially impactful if used as a non-filer portal. In this example, anyone who isn't automatically enrolled in benefits could apply for all of the appropriate programs using one tool. In addition to minimizing confusion around how to apply, universal applications could substantially reduce the amount of time it takes to apply.

Nevertheless, the implementation of automatic enrollment or universal applications should not eradicate human interaction. While these applications will facilitate the process of applying, people will need human support as they navigate the benefits processes, whether helping them understand eligibility requirements or addressing learning curves that might surface as technology becomes more sophisticated. Ultimately, benefits applicants and recipients should have access to customer support to have a better understanding of their application process, assistance with correcting mistakes, and reassurance in submitting sensitive information.

CALL TO ACTION — Technology should establish maximum time and bandwidth ceilings to reduce accessibility frictions and improve participation rates among eligible recipients:

- Design a single universal online application (which combines personal and demographic information, financial information, and household information) for all benefits.
- Work with fintech companies to build apps that help better navigate the system, such as accessing and storing confidential documents and retrieving information from these documents to complete applications.
- Understand the limits of technology—avoid cost-cutting measures that eliminate in-person or telephone customer service options for benefits applicants.

C. **Design Equity.** While integrating fintech into the benefits system will surely expand digital access, the design of these tools will be a critical driver of their success. Consumers of fintech expect convenience and efficiency, but an application for benefits management will be unique. Given that income supports are vital to the well-being of recipients, the fintech products that organize them must be inclusive and secure. Fintech has a unique opportunity to address the long-standing barriers that create digital and financial exclusion. However, careful planning and diligence in implementation are necessary to avoid reaffirming and accelerating racial bias and systemic barriers.

Expanding access to vulnerable communities requires acknowledging the current and potential vulnerabilities and creating products aimed at decreasing these vulnerabilities. It is also important for fintech partners to possess an in-depth knowledge and cultural competence regarding the financial realities and lived experiences of benefit recipients. At the most basic level, fintech partner organizations must understand and acknowledge that, although benefits are an important income support for millions of individuals, the benefits are often insufficient to fill the gap between wages and basic expenses for low- and middle-income Black and Latinx households.

Benefit recipients' tenacity and ingenuity in managing their finances, or the existence of products that supplement financial management, will fill that chasm. Products should be designed to be easy to use, convenient, and have a value-add for consumers who already have a lot to manage. This includes researching, rather than assuming, possible learning curves that may exist regarding fintech usage. It is also the key to decreasing the significant administrative burden required for low- and middle-income Black and Latinx individuals to engage with the benefits system. By expanding digital and application access, fintech can become a successful partner in redesigning government benefits systems to advance equity.

Fintech must actively engage Black and Latinx low-income benefits recipients and the practitioners that serve these populations to establish equity in the design process. There are a number of paths to implement these goals. For example, Change Machine sets internal equity goals in fintech partnerships. Of the fintech partnerships established as part of the recommendation engine, a minimum of 40 percent must be founded or led by women or people of color. This is a demonstration of the intentional measures that Change Machine is taking to ensure that there is a pipeline that elevates the experiences of Black and Latinx women to inform the fintech solutions that are marketed for everyone.

Furthermore, representation alone is not enough. We must be able to point to tangible financial security outcomes that correlate with product usage. To maximize the potential for financial security, fintech companies should base their internal key performance indicators on the financial success of users who stand to benefit the most from their solutions. While there is a market case to be made for such an approach, the ability of the government to incentivize, regulate, and reward fintech companies that prioritize outcomes for the target populations of various government programs is an obvious solution.

CALL TO ACTION — Fintech partners must realign success metrics towards recipients' ultimate financial security: frictions and improve participation rates among eligible recipients:

- Benefits programs will complete an equity evaluation of all potential fintech partners.
- Engage fintech partners to assist with assessing biases and disparities in benefits distribution and working to resolve deficiencies in current benefit amounts.
  - *Examples:* Women of color face less access to affordable housing; white customers receive over 50 percent more in average monthly unemployment benefits than Black customers; current benefit amounts are often insufficient.
- Incorporate a new scoring rubric that prioritizes financial security outcomes of recipients in the review of fintech vendor applications for government benefits.
- Authorize vetted fintech partners to participate in spaces traditionally held by banks to reach more low- and middle-income Black and Latinx businesses and individuals, including fintechs as lenders in the PPP program.

D. **Automation Risks:** Errors and Algorithmic Biases. Automatic enrollment presents an opportunity to expand benefits access to millions of vulnerable individuals. However, automatic enrollment must be carefully undertaken and designed to protect these vulnerable individuals from the risks that are inherent in automation. Fintech must create safeguards for automatic enrollment processes within the system. As previously noted, benefits automation that has been adopted by some states has resulted in errors such as incorrectly denying eligible applicants or incorrectly paying benefit recipients, only to request that vulnerable recipients return huge overpayment sums several years later. Automatic enrollment must also include an opt-out option for individuals who have become ineligible or no longer wish to receive benefits. Even with an opt-out option, an automatic enrollment and renewal process may result in limited cases of overpayment. These policies will assist fintech in increasing financial security and digital access in the benefits system rather than increasing financial hardship for vulnerable individuals.

When benefits are denied, the use of advanced automated tools that employ AI may come into question. This is especially true in situations where an individual exercises their right to request an explanation of their denial of benefits. Automated systems that employ AI may not be able to provide explanations of decision making. Therefore, automated systems should require accountability measures to identify biases and explain the decision-making process.[54]

Without due diligence applied to equitable design, fintech can create exclusionary algorithms that create more entrenched biases.[55] Although work is in progress to develop algorithms that account for biases, automated systems still present a risk.[56] Additionally, errors that result from automation can lead to extreme financial hardship for vulnerable populations that cannot bear the risk. The biases and errors that can result from automation must be anticipated and prevented.

CALL TO ACTION — Fintech's tools for efficiency must be monitored for abuse:

- To minimize errors, there should be continued efforts to detect and moderate algorithmic bias. From the inception of these systems there must be an equity framework used to build these out and they should be sufficiently tested to ensure there is no bias.
- System decision-making processes should still be transparent.
- System decision-making should be vetted by practitioners that engage with benefit applicants and recipients to flag processing errors and assist in making corrections.

E. **Accountability.** Public-private partnerships have demonstrated their value in helping benefits programs to scale and expedite expanded access. As these partnerships are becoming more commonplace, there is a need to structure the relationships in a manner that holds all parties accountable to benefit applicants and recipients. While public fintech interventions regarding the benefits process must meet certain design criteria, we must also ensure that private fintech partners are held to the same standards. Private fintech companies have the power to provide innovative and transformative products for the benefits system, but it is of utmost importance that benefits recipients remain protected while accessing these tools. This includes protection from errors that can occur within an automated system. Consequently, as the government orients the benefits system towards fintech, it must deliver policies that ensure accountability in this space for private fintech partners.

Accountability is especially important while managing consumer financial data. Fintech companies have the power to provide innovative and transformative products, but beneficiaries must remain protected and feel secure while accessing these products and services. As such, coupling fintech and government benefits must include policies that ensure data security and privacy. Fintechs and government agencies must work together to ensure that beneficiary information is protected and safeguarded against data breaches. Data should be collected as necessary, and customers must be aware of the data that is being collected and stored as well as who has access to their data. Information should not be sold to third parties and should solely be used to assist in the provision of benefits and services that are being provided by the government to the intended beneficiaries.

To measure the impact and success of these partnerships, we recognize that it will be critical for fintech companies to collect data. As discussed previously, people of color and poor people have historically been on the losing end of the digital divide. The customer data collected by fintechs could help further their efforts to increase inclusivity and address service gaps, but this is only possible if fintechs provide all customer data to the public agencies that provide benefits. Government benefits agencies can then analyze benefit recipient usage data through an equity lens. Fintech companies already gather extensive customer information. This data must be used to evaluate whether fintech usage results in a disparate impact for low- and middle-income Black and Latinx communities. If a disparate impact is found, this data will be necessary for fintech companies and state agencies to identify root causes. It will also aid fintechs in redesigning current products to increase equity. Data sharing between fintechs and public benefit agencies is essential to the pursuit of accountability, inclusivity, and transparency in partnerships between fintechs and benefit providers.

Today, fintechs are beginning to take steps towards improving data security. In a worldwide study, 40 percent of surveyed fintechs have implemented or are in the process of implementing enhanced security measures.[57] The impact of this progress is evident in data from Statista which found that there were 1,001 data breaches reported in the U.S in 2020, down from 1,473 breaches in 2019.[58]

CALL TO ACTION — Benefits should be viewed as utilities, and fintech partners who are part of the process should have elevated responsibilities:

- Fintech partners who distribute government benefits should adhere to the state-defined set of minimum requirements (set forth by each state's regulatory agencies for financial services, consumer protection, or data privacy) regarding user interface features and responsibilities during data privacy breaches.
- The FCC, Federal Reserve, or CFPB should examine the GDPR and CCPA to design similar federal legislation that guarantees and extends data protections to consumers.
- Fintech companies should be incentivized and guaranteed confidentiality to share data with public agencies in New York State to promote inclusivity and transparency.

Conclusion

Fintech presents several opportunities to create positive changes in individuals' financial lives. There is an opportunity to address financial exclusion, provide tools for individuals to thrive financially, and facilitate access to necessary resources such as government benefits. Although the digital divide may persist, fintech still provides many opportunities to expand access to benefits and increase equity in benefits distribution while efforts continue to address this complex issue. Fintech products must be designed with an equity framework, otherwise they risk perpetuating the same racist and discriminatory practices of financial institutions. While fintech is ripe with potential to address existing financial gaps, it is not the grand solution to people's financial problems. In order to fully confront the wealth disparities across the country, there must be a reckoning with the historic and systematic exclusion and discrimination of Black and Latinx individuals. This includes having conversations that move beyond benefits and push towards just and living wages and affordability in education and housing. For individuals to move from surviving to thriving, fintech must be designed and utilized with the needs of those most financially vulnerable in mind. The question is "whether tech can function as a tool that enables us to have better outcomes—to influence new frontiers and forge new dimensions of performance that close the racial and gender wealth gaps."[59]

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