# Refining the Definition of the Unbanked*

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**Abstract**

We propose a new way to classify individuals without a bank account, accounting for their actual interest in being banked. Analogous to how unemployment statistics are defined and estimated, we differentiate the individuals that do not have a bank account and would like to have one (the "unbanked") from individuals that do not have a bank account and are not interested in having one (the "out of banking population"). Using FDIC data, we show the evolution over time of these new measures and show that the two groups differ in policy-relevant ways. While the unbanked mostly cite financial and past credit or banking history problems as reasons for not having a bank account, the out of banking population cites a growing mistrust toward the traditional banking system. Policymakers should consider these factors when designing policies aimed at increasing financial inclusion.

**Keywords:** unbanked, FDIC, banking, checking, fintech, financial inclusion.

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# 1 Introduction

**Key takeaway:** *Policy interventions to increase financial inclusion should differentiate between those who want a bank account but are unable to obtain one (the "unbanked") and those who do not want a bank account (the "out of banking population").*

The Federal Deposit Insurance Corporation (FDIC) reported that an estimated 4.5 percent of U.S. households were unbanked in 2021, defining as "unbanked" any household where no one had a checking or savings account at a bank or credit union.[1] However, while some households may not have a bank account but would like one, there might also be some households that do not have a bank account because they do not want to have one. The commonly-reported statistic from the FDIC, nevertheless, does not differentiate between these two groups.

Economists, however, tend to approach these definitions differently. For example, the unemployment rate, a key economic indicator, has been defined through two key populations since the 1940s (Card, 2011): 1) out of the population that *can* work, the population that *wants to* work, which is identified as those that are either employed or actively looking for work (commonly referred to as the labor force participation rate), and 2) out of the labor force, the population that is *unable* to find a job but is actively looking for one (*i.e.*, the unemployment rate). Differentiating between those that are out of the labor force and the unemployed is key for economic analysis—while the unemployment rate speaks to factors that are more-often related to economic cycles, changes to the labor force participation rate are usually related to structural changes in the economy (*e.g.*, the sharp increase in female labor force participation in the last century).

The question then is as follows: Why are we not following the same reasoning when looking at the population that is unbanked in the United States? Would it not be useful and make more sense to separate those that do not have a bank account because they *do not want one* from those that do not have a bank account because they are *unable to* open one but *would like to*? Both rates are useful to know, but the policy implications can be substantially different between the two.

This paper uses data from the FDIC *National Survey of Unbanked and Underbanked Households* series (hereafter: FDIC survey or FDIC unbanked survey) to recalculate the unbanked population, assuming that the underlying banking-age population is defined in the same way (*i.e.*, anybody in a household of at least 15 years of age). Specifically, we define and measure the following groups:

1. Banking Population Participation Rate, defined as those out of the banking-age population that are

[1] A similar rate is found under a similar definition by the Survey of Consumer Finances (SCF) run by the Federal Reserve Board (https://www.federalreserve.gov/econres/scfindex.htm). Because the SCF does not inquire about the respondent's interest in a bank account, we limit our analysis to FDIC data throughout the paper.

either banked or unbanked but interested in having a bank account

2. Unbanked Rate, defined as those out of the banking population that are not currently banked but are interested in having a bank account

3. Out of Banking Population Rate, defined as those out of the banking-age population that are not currently banked and not interested in having a bank account

We find that the banking population participation rate has been consistently increasing, from 94.6 percent in 2009 to 96.8 percent in 2021, as can be observed given the declining unbanked rate and out of banking population rate, which indicate that more households have become banked and that a higher share of households is interested in a bank account. In 2021, we estimate that 1.3 percent of the American banking population is unbanked, while the out of banking population consists of 3.2 percent of banking-age Americans.

The reasons why these two populations do not have a bank account is found to differ in a policy-relevant way: the unbanked cite financial and past credit and banking problems as the main reasons for not having a bank account, while the out of banking population cites lack of trust in the banking system increasingly more. We argue that policymakers need to take these dynamics into consideration to design policies effectively. For example, growing interest in new financial products aimed at increasing financial inclusion might not necessarily be effective at reducing the out of banking population rate if these products are provided by the traditional banking system without first addressing the underlying causes leading to this population's mistrust of the banks themselves.

The paper is structured as follows: Section 2 provides a brief literature review; Section 3 introduces our new measures; Section 4 discusses the main reasons for not having a bank account, differentiating between the unbanked and the out of banking population; Section 5 discusses data limitations; Section 6 addresses the policy implications and concludes.

## 2 Literature Review

Our study contributes to the literature studying the unbanked population in the United States, its dynamics, and its characteristics. Several studies have examined factors that affect the likelihood of being unbanked, including demographics (Kennickell et al., 2000; Rhyne and Greene, 2006; Stegman and Faris, 2005), income and life events (Goodstein and Kutzbach, 2022; Hogarth and O'Donnell, 1999; Rhyne and Greene, 2013), and environmental factors (Hayashi and Minhas, 2018).

There is also a growing strand of literature that analyzes differences within the unbanked population (Bogan and Woldfolds, 2022; Hayashi et al., 2024; Hogarth et al., 2004), such as the difficulties related to costs and fees, especially for low-income consumers (Barr, 2012; Servon, 2017) and the issue of mistrust in financial institutions (Rengert and Rhine, 2016; Van der Cruijsen et al., 2021).

This paper builds on this previous literature to focus on understanding how best to measure the unbanked from the perspective of policymakers, essentially breaking up the commonly-used measure of the unbanked into two groups. We also show that these two groups differ in the reasons for not having a bank account in a policy-relevant way.

Our study also relates to the wider literature on measurement of economic statistics, most notably the history and development of the statistics on unemployment, labor force, and labor force participation. A thorough review on the evolution of these statistics into the ones commonly used today is available in Card (2011). This paper applies a similar thought-process to the concept of the unbanked and discusses what additional data would better quantify our suggested measures.

# 3 New Indicators

## 3.1 The Banking Population Participation Rate

In current discourse, the population that are of an age to have a bank account is simply divided into two: those who have it and those who do not, without reference to whether they are interested in having a bank account. However, the FDIC collects information on whether those that do not have a bank account are *interested* in one, and we can therefore use these data to calculate the rate of those that are in the banking population, whether they are banked or not currently banked but looking to be banked.

We calculate the Banking Population Participation Rate as follows:

$$\frac{\text{Banked+Not currently banked that are interested in a bank account}}{\text{Population of banking age } (\geq 15 \text{ years})} \tag{1}$$

and:

$$\text{Banking Population} = \text{Banked+Not currently banked that are interested in a bank account} \tag{2}$$

Following the FDIC analysis, we will base all results on households. However, conditional on data availability, what we describe here can be applied to individuals as well.

Using the full survey and weights from the FDIC, to calculate the Banking Population Participation Rate, we sum 1) those that answered “Yes” to question B20 in the current survey instrument or the equivalent in

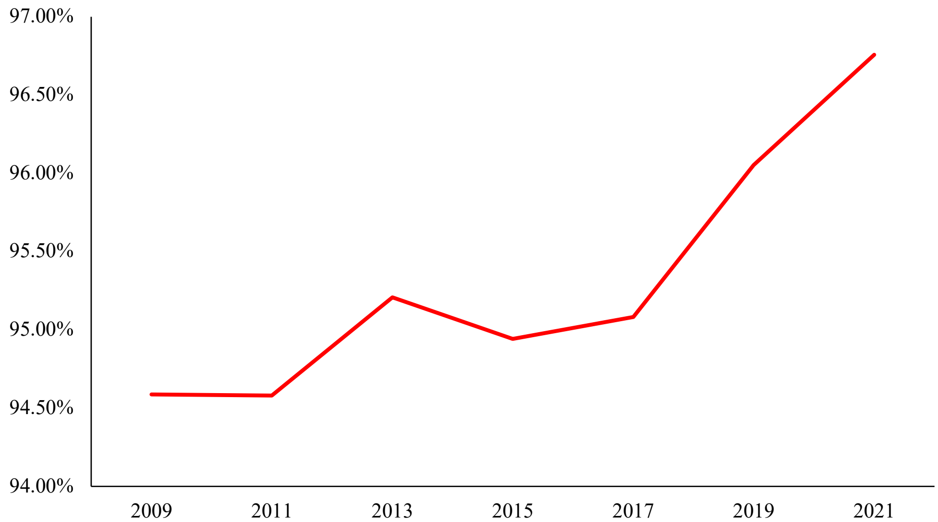



Figure 1: Banking Population Participation Rate

*Notes*: This figure shows the banking population participation rate, calculated as the share of the population of banking age that is either 1) banked or 2) not currently banked but is interested in a bank account. Source: Authors' calculations based on FDIC data from the Survey of Unbanked and Underbanked Households series.

previous surveys,[2] which determines the banked population, and 2) those that answered "No" to question B20 but answered "Very interested" or "Somewhat interested" to question UB50 in the current survey instrument (2021) and in 2019.[3] Unfortunately, the FDIC did not ask the exact same question in previous iterations of the survey. Instead of asking about the household's interest in having a bank account, they asked about the likelihood of opening an account. For the purposes of this analysis, to show a time series, we will use that information for years prior to 2019. In particular, starting from 2017 backward, we will calculate the Banking Population Participation Rate as the sum of 1) those that answered "Yes" to question 2 (which is the equivalent of question B20)[4] and 2) those that answered "No" to question 2 but answered "Very likely" or "Somewhat likely" to question 7 in the survey instrument for calendar year 2017 or the equivalent question in previous survey instruments.[5]

Figure 1 shows the timeline of the Banking Population Participation Rate from 2009 onward.

### 3.2 The Redefined Unbanked Rate

Out of the Banking Population Participation Rate, we can then define those that are unbanked as those that do not currently have a bank account but are interested in having one:

[2]Do you (IF OTHERS AGE≥15 FILL: or anyone else in your household) have a checking or savings account now?
[3]How interested are you (IF OTHERS AGE≥15 FILL: or anyone in your household) in having a bank account?
[4]Do you (if OTHERS AGE≥15 FILL: or anyone else in your household) have a checking or savings account now?
[5]How likely is it that you (if OTHERS AGE≥15 FILL: or anyone in your household) will open a checking or savings account within the next 12 months?

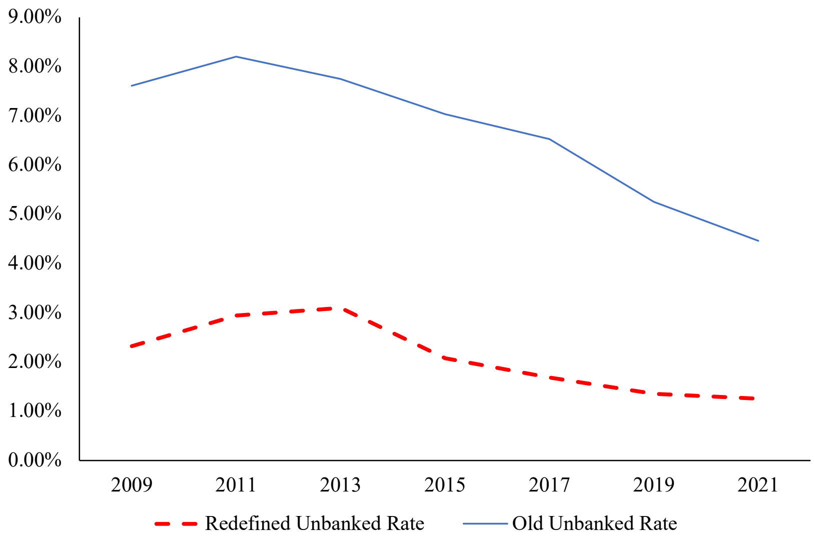



Figure 2: The Unbanked Rate

*Notes*: This figure shows the redefined unbanked rate as proposed in this paper, calculated as the share of the banking population that does not have a bank account but is interested in having one, and it compares it with the unbanked rate as commonly-understood, calculated as the share of the population of banking age without a bank account. Source: Authors' calculations based on FDIC data from the Survey of Unbanked and Underbanked Households series.

$$\frac{\text{Not currently banked that are interested in a bank account}}{\text{Banking population}} \tag{3}$$

This measure is where our analysis differs from the FDIC's approach—our definition of unbanked does not include those that are not interested in having a bank account similarly to how the unemployment rate does not include those that are not actively looking for a job. Notably, this statement does *not* mean that we should not care about those that are not interested in having a bank account; however, because the policy implications can be very different for the two groups, it is important to recognize this for policy interventions to be effective.[6]

Figure 2 compares the redefined unbanked rate as calculated using our definition ("Redefined Unbanked Rate") with the unbanked rate using the FDIC definition ("Old Unbanked Rate").

## 3.3 The Out of Banking Population

By defining the banking population as those that are either already banked or looking to be, those that are in the banking-age population (≥15 years of age) that are not currently banked and are not interested in being banked are simply outside of this population, and we define this group as the Out of Banking

[6]Note that for the purposes of this analysis, the out of banking population also includes those that are not banked and that did not answer the question regarding their likelihood of opening a bank account. This assumption only applies to the very first survey years, as the full annual sample expresses their likelihood of or interest in opening a bank account starting from 2015.

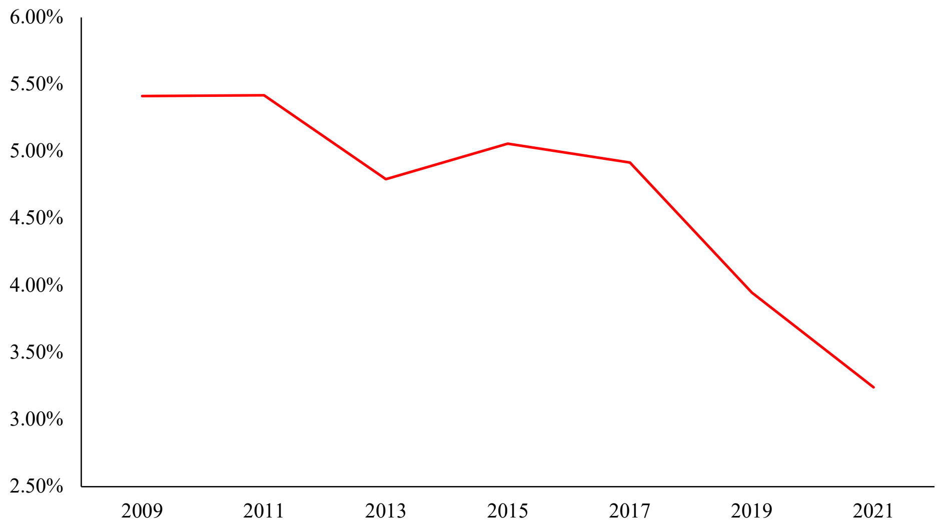



Figure 3: The Out of Banking Population Rate

*Notes*: This figure shows the out of banking population rate, calculated as the share of the population of banking age that does not have a bank account and is not interested in a bank account. Source: Authors' calculations based on FDIC data from the Survey of Unbanked and Underbanked Households series.

Population. We define the population of households (≥15 years of age) that is not currently banked and are not interested in being banked as the Out of Banking Population.

The Out of Banking Population Rate is therefore defined as:

$$\frac{\text{Not currently banked that are } \textbf{not} \text{ interested in a bank account}}{\text{Population of banking age } (\geq 15 \text{ years})} \tag{4}$$

Using the FDIC data, this rate is therefore calculated using those that answered "No" to question B20 and answered "Not very interested" or "Not at all interested" to question UB50 in the current survey instrument (2021) and 2019.[7] As the FDIC did not ask the exact same question in previous iterations of the survey, we use the information on likelihood of opening an account as a proxy for interest once again to build a time series. In particular, starting from 2017 backward, we calculate the Out of Banking Population Rate as those that answered "No" to question 2 (which is the equivalent of question B20)[8] and answered "Not very likely" or "Not at all likely" to question 7 in the survey instrument for calendar year 2017 or the equivalent question in previous survey instruments.[9]

Figure 3 shows the rate of the population that is out of banking. Analogous to the construction of the out of labor force rate, this statistic is meant to capture those that are not currently banked but are also not interested in becoming banked.

[7]How interested are you (IF OTHERS AGE≥15 FILL: or anyone in your household) in having a bank account?
[8]Do you (if OTHERS AGE≥15 FILL: or anyone else in your household) have a checking or savings account now?
[9]How likely is it that you (if OTHERS AGE≥15 FILL: or anyone in your household) will open a checking or savings account within the next 12 months?

Note that, by construction:

$$\text{Banking Population Participation Rate} + \text{Out of Banking Population Rate} = 100\% \tag{5}$$

and

$$\text{Banking Population} + \text{Out of Banking Population} = \text{Population of Banking Age} \tag{6}$$

# 4 Main Reason for Not Having a Bank Account: Unbanked vs. Out of Banking Population

In the current discourse, many reasons are pooled together when discussing the unbanked as a homogenous group that includes anyone who is not banked. Some of these reasons are financial and could be potentially affected by focused policy interventions, such as minimum balance requirements; others relate to bigger issues of trust and privacy that concern the general sentiment surrounding the banking system, and more complex policy interventions that might require structural changes to how the system works and is perceived might be required.

To analyze which factors are more relevant to the unbanked and to the out of banking population, respectively, we use the information collected by the FDIC in questions UB55 and UB60 in the current survey instrument (2021) and the corresponding questions in previous survey years. Together, these questions collect the main reason why the relevant population does not have a bank account. Over the years, the questions asked have changed, but the reasons could be generally grouped as follows: 1) minimum balance requirements, 2) lack of trust in the banking system, 3) issues related to identification, credit, or past problems with banking accounts, 4) high or unpredictable banking fees, 5) inconvenient bank hours and locations or insufficient product offerings, or 6) issues related to privacy concerns. We will focus on the first three reasons in this paper as they generally capture the main reasons that households cite for not having a bank account. Note that the FDIC provides data for other less-cited reasons (bank hours, bank locations, product offerings, high and unpredictable fees, as well as privacy concerns), but we are setting those aside for the purpose of our discussion.[10]

To compare these factors as accurately as possible, we focus on the years when the questions were comparable across survey instruments. For minimum balance requirements, data are therefore available from 2013 onward; for lack of trust and issues related to identification, credit, or past banking problems, data are available from 2011 onward.

[10] See Boel and Zimmermann (2022), Célerier and Matray (2019), and Goodstein and Rhine (2017) for discussions on some of these other reasons.

Note that data on issues related to identification, credit, or past banking problems are collected separately for identification and for credit/banking problems, respectively, starting in 2021. For the purposes of this analysis, we sum those answers together to compare them against previous years, when a single question captured all of those options.

Respondents to the FDIC survey also have an option to not indicate a reason why they do not have a bank account as well as to indicate that they have another (not listed) reason. To accurately compare data across survey years without considering the missing information from respondents that did not indicate a reason among the available ones, we rescale the shares of the responses for each reason to be out of all respondents that have indicated a reason amongst the listed ones. In other words, the values reported for each reason X below should be read as the share of respondents that indicated X as the main reason for not having a bank account out of all respondents that picked a main reason out of the provided list in the survey instrument.[11]

Finally, we collect the information discussed above by the reported interest in having a bank account (for years 2019 and 2021) or likelihood of opening a bank account (for 2017 and earlier years). By doing so, we can then calculate the share of respondents reporting each of the reasons for not having a bank account as the main one for both the unbanked as defined above as well as for the out of banking population as defined above.

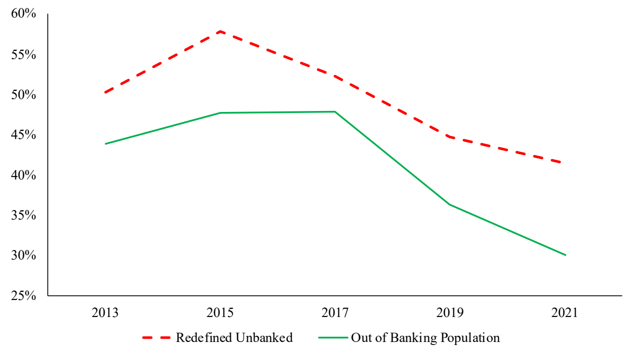
Starting from the unbanked, as shown in Figure 4a, the main reason for them not having a bank account is the minimum balance requirements, cited by roughly two-fifths of those picking a reason out of the listed ones. While the out of banking population also reports this reason, the unbanked consistently report it more frequently. Additionally, the gap between the two has been widening since 2017.

The second most important reason for not having a bank account for the unbanked concerns issues with identification, credit, and past banking problems.

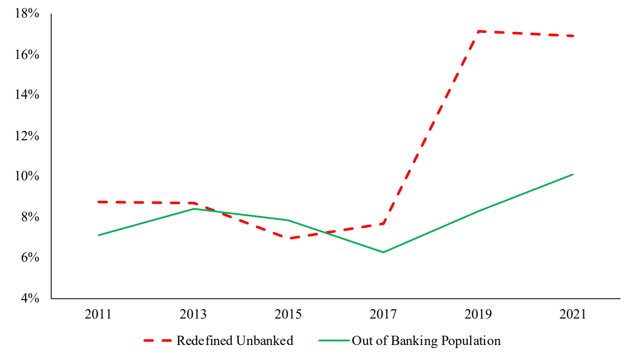
As can be seen in Figure 4b, while about 10 percent of the out of banking population also report this factor as the main reason for not having a bank account, nearly 20 percent of the unbanked cite this as the main reason. Based on the breakdowns provided for the first time in 2021, problems with past banking or credit history are the main driver for this factor, with a twice as high share of unbanked respondents reporting this as the main reason for not having a bank account relative to issues with identification. This trend is likely partially related to the widespread use of ChexSystems by U.S. banks (Boel and Zimmermann, 2022; Servon, 2017).[12]

[11] For example, in 2021, 17.7 percent of respondents picked "Other reason" and 16.8 percent of respondents did not select a reason. Therefore, in 2021, approximately 34.5 percent of respondents without a bank account did not pick a reason out of the ones provided and are not included in the analyses below on the main reason for not being banked.

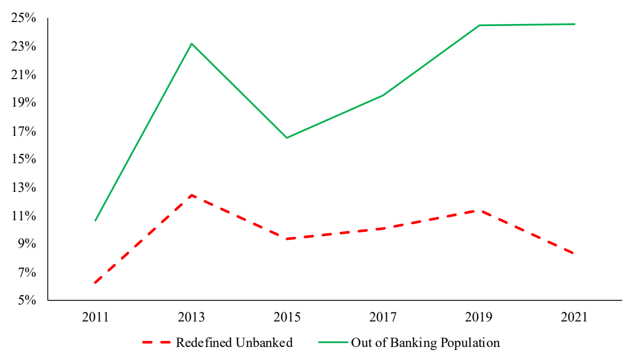
[12] ChexSystems is a reporting agency that collects a series of information about depositors' problems with bank accounts.




(a) Main Reason: Minimum Balance Requirements




(b) Main Reason: ID, Credit, or Banking History Problems




(c) Main Reason: Lack of Trust in Banks

Figure 4: Main Reason Reported To Not Have a Bank Account

*Notes*: This figure shows the share of the unbanked as defined in this paper reporting each of the three reasons mentioned here as the main reason for not having a bank account and the corresponding share of the out of banking population reporting the same main reason. Source: Authors' calculations based on FDIC data from the Survey of Unbanked and Underbanked Households series.

Finally, turning to lack of trust in the banking system, the difference between the unbanked and the out of banking population is stark and growing, as shown in Figure 4c.

Banks then use this information to determine whether to close an existing account and whether an applicant can open a new account. If a depositor has problems with their bank accounts, for example by having unpaid fees, and the bank chooses to close their account, that data will be available on ChexSystems for a period of five years, and it might be more difficult for that same individual to open a new account elsewhere, as the ChexSystems data would now categorize that individual as a riskier customer. Note that this is not necessarily always the case, as banks can choose not to use ChexSystems or to consider other factors or other timeframes in their determination on whether to approve an applicant for a new account.

As Figure 4c shows, the out of banking population consistently lacks trust in the banking system, and increasingly so. A quarter of the out of banking population that chose a reason out of the listed ones highlighted lack of trust in banks as the main reason for not having a bank account. Additionally, 37 percent of the out of banking population in 2021 reported this as a reason for not having a bank account, even if they picked another reason as the main reason for not being banked.

Issues related to trust are often related to privacy as well; accordingly, over 60 percent of respondents that picked the lack of trust in banks as the main reason for not having a bank account cite privacy reasons as another reason for not being banked.

While the unbanked also report issues of trust, the share has decreased since 2019 and is currently around 8 percent. The fact that these respondents cite that they would be somewhat or very interested in having a bank account suggests that these trust issues are not insurmountable for this group of respondents. In fact, we find that the expressed interest in having a bank account is inversely related to the reported lack of trust in banks: in total, roughly 2 percent of respondents without a bank account that report being very interested in having one report lack of trust in banks as the main reason for not being banked. Conversely, almost two-thirds of the respondents without a bank account that report not being interested at all in having one report lack of trust in banks as the main reason for not being banked.

## 4.1 Transitions in the Banking Population

An interesting item to analyze is the transitions observed between the banking population (including the unbanked) and the out of banking population. Since the FDIC collects data on whether the individual i) had a bank account within the last year, ii) had a bank account more than one year ago, and iii) never had a bank account, it is possible to verify whether, in the repeated cross-section, the out-of-banking population is more likely to contain a higher rate of never-bankers.

Figure 5 shows that roughly a fifth of the unbanked population had a bank account within the last year and a majority had a bank account at any point in time. By contrast, only 7 percent of the out of banking population had a bank account within the last year, and the majority has never been banked. The unbanked are therefore more recently connected to the banking system and might return under certain policies or following the resolution of different circumstances that led them out of the banking system itself (see Hayashi et al., 2024 for a discussion on such events related to previously-banked unbanked individuals).

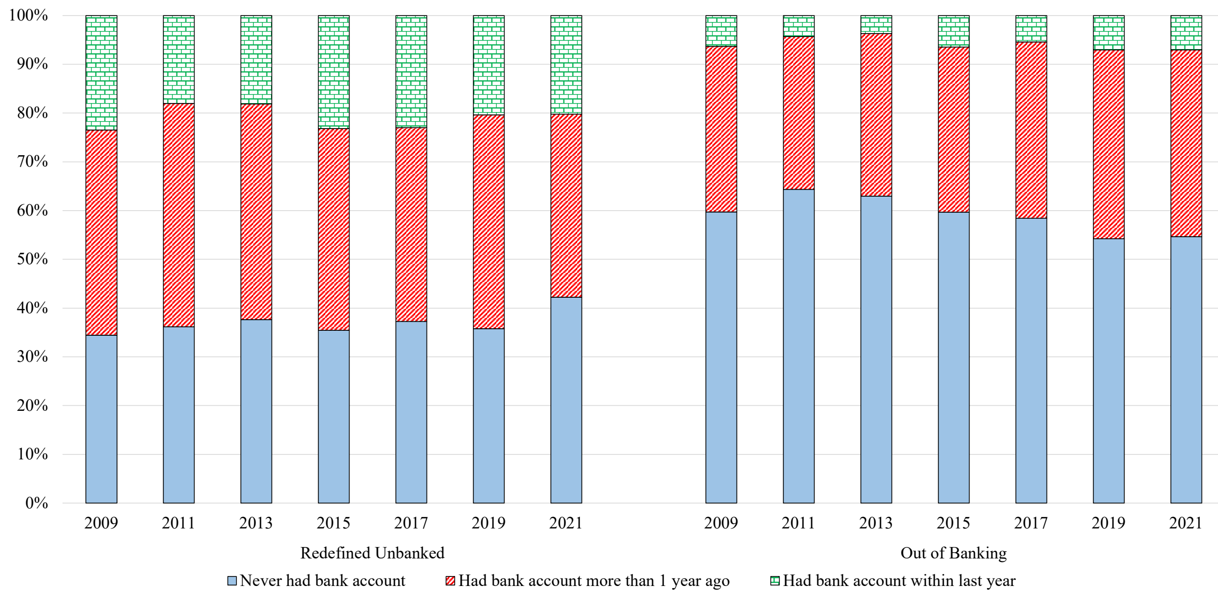



Figure 5: Previously Banked: Unbanked vs. Out of Banking Population

*Notes*: This figure shows the share of the unbanked as defined in this paper and of the out of banking population, respectively, that reported never having had a bank account before, having had a bank account within the last year, and having had a bank account more than a year before being surveyed. Source: Authors' calculations based on FDIC data from the Survey of Unbanked and Underbanked Households series.

# 5 Improving the Measurement of the Unbanked and Out of Banking Population

While the FDIC data provides us with a wealth of useful information, it is important to note that this data still has limitations given the measures that we are introducing. With this exercise in mind, there are some items that researchers and policymakers alike would benefit from knowing.

First, the FDIC survey series, as well as the Federal Reserve Board's SCF, are repeated cross-sectional data collections. Lack of panel data limits researchers' ability to follow individuals' choices across different circumstances and to ultimately verify what interventions and conditions lead to a person opting in (or out of) a bank account. The introduction of a panel aspect to these data collections, or a separate panel collection, would allow the researcher to follow, among other things, whether interventions aimed at reducing the costs of bank accounts lead to the banking of high-interest individuals without a bank account that cite financial considerations as a reason for being unbanked.

Second, variables that track an individual's interest in having a bank account (and its likelihood prior to 2017) do not necessarily reflect whether an individual has actively tried to obtain a bank account. Relatedly, the main reason for not having a bank account may be driven by beliefs rather than actual constraints if an individual is not actively trying to open an account. Adding questions aimed at understanding whether a person is actively trying to be banked, including the timing for when the person (last) tried to open a bank account and the reasons that prevented him/her from trying to open one, would be useful. This additional information would also enable the researcher to accurately capture individuals who have tried to open an account in the past, were not successful, and stopped trying ("discouraged bankers," as one may call them).[13]

Finally, additional questions that could improve our understanding on the issues of trust in the banking system is critical to identify the structural components that can inform policy more effectively. Lack of trust in the banking system seems to go beyond privacy concerns and may also be more-generally related to a lack of trust toward the government and the banking sector as a whole, including the central bank, rather than specific products. A recent study by Welburn et al. (2024) focused on the unbanked in California found that the share of individuals without bank accounts that lacked trust in banks was approximately the same as the share that lacked trust in the California government and in the U.S. government as a whole. These dynamics are important, as bringing more products into the traditional banking system will not increase the banking population rate if the trust issue is with the system itself—those individuals may opt out of those products as well, conditional on those products being "part" of the system. For example, there is growing interest in other alternatives such as stablecoins, aimed at addressing the frequently-cited issues related to privacy concerns. Such policies or regulations, however, might not have the desired effect on this population becoming banked if the lack of trust is in the banking system itself (see, for example, Maniff, 2020).

## 6 Conclusion: Policy Implications and Further Research

Differentiating between those that are not banked but still interested in a bank account—the unbanked—from those that are not banked and are not interested in a bank account—the out of banking population—is key to design policies effectively.

The first takeaway from this measuring exercise is that the rate of the unbanked population that could be more-effectively addressed by policies aimed at increasing the share of the American population with bank accounts is smaller than what is regularly discussed. In 2021, 1.3 percent of those in the banking population were unbanked according to our proposed definition, compared to 4.5 percent using the FDIC definition. This difference is due to the observation that over 70 percent of households without a bank account are not interested in pursuing one, which our definitions internalize.

Unbanked individuals mostly cite two main reasons for not having a bank account: minimum balance

[13] Reformulating questions to only define as unbanked only those who are actively seeking a bank account in the most-recent period of time would instead lead to similar issues present in the labor literature, where it is much more challenging to correctly capture the rate of discouraged workers. See Card (2011) for a discussion on discouraged workers in employment statistics.

requirements and issues with identification, credit, or past banking problems. If policymakers want to create an environment where individuals who want to be banked do not have obstacles that prevent them from opening a bank account, this analysis suggests that these considerations could largely be addressed by policy interventions aimed at encouraging financial institutions to offer accessible and affordable services.

Such policy interventions, however, are unlikely to affect the banking decisions of the out of banking population, at least not to the same extent as the unbanked. Reducing the size of the out of banking population might require policies that internalize that individuals without bank accounts tend to be from more-marginalized groups. For example, racial minorities, lower-income individuals, disabled individuals, and unemployed individuals are all more likely to not have a bank account than their corresponding reference group (White, higher-income, non-disabled, employed, respectively).

Over the years, the banking population participation rate has been consistently increasing, from 94.6 percent in 2009 to 96.8 percent in 2021, as can be observed given the declining unbanked rate and out of banking population rate, which indicate that more households have become banked and that a higher share of households is interested in a bank account.

However, increasing the banking population participation rate even further would require addressing the primary reason for the out of banking population to not pursue a bank account: an increasing share of the out of banking population does not trust the banking system. This issue is a structural one: if the lack of trust is in the banking system itself, creating policies or regulations aimed at having banks provide different options, such as digital products or digital innovation aimed at increasing privacy, might not have the desired effect on this population becoming banked. By contrast, the availability of such products and services within the current banking system might alienate this population more, leading them to less traditional, non-regulated, and potentially more-costly and less-secure payment methods. Given these findings, it is paramount for policymakers to understand the sources of this growing mistrust in the banking system. A deeper understanding of the roots of this trend could then guide potential policies aimed at addressing such causes.

Finally, similar issues can be identified with the underbanked population, which is defined by the FDIC as any household with an account at an FDIC-insured institution that also obtained financial products or services outside of the banking system that are used disproportionately by the unbanked. Further research is needed to measure the underbanked population effectively and to better understand where policy interventions can be most effective in today's fast-changing payment landscape.[14]

[14]See Greene et al. (2024) for a proposed definition of underserved households in digital payments.

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