Unbanked and Impoverished?

Exploring Banking and Poverty Interactions over Time

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Abstract

In 2019, 7.1 million households in the United States (5.4%) were unbanked and lacked a checking or savings account (FDIC 2020). Using three leading household surveys, this paper documents how the interaction between bank access and poverty has evolved over time. We present a historical time series of unbanked rates, showing high unbanked rates for those in poverty even with increases in financial access over time. In the 1980s, 49.6% of households in poverty were unbanked while 22.8% were unbanked in 2019. Unbanked rates were even higher for Black and Hispanic households that were in poverty. In the 1980s, these groups had unbanked rates of 73.6% and 66.5% which declined to 38.4% and 31.8% in 2019, respectively. To explain differences in banking rates by race, we use Kitagawa-Oaxaca-Blinder decompositions that account for the binary nature of banking status. Using a robust set of controls that include assets and poverty status, our results suggest that group characteristics explain slightly less than half the difference in unbanked rates for Blacks and around half for Hispanics. Additionally, our results suggest that minimum balance requirements are the most cited reason for households being unbanked with around 8% of Black households, 6% of Hispanic households, and 1% of White households being unbanked for this reason. Our findings suggest continued inequalities in access to the financial system that have persisted over time.

Keywords: Unbanked, Poverty, Race, Financial Inclusion, Inequality

JEL Codes: G21; I32; I38

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1 Introduction

In 2019, 7.1 million households in the United States (5.4%) lived in households that were unbanked, meaning that they lacked a checking or savings account. Unbanked rates for Black and Hispanic households were over twice the national average, with 13.8% and 12.2% of all Black and Hispanic households respectively being unbanked (FDIC 2020).[1] Without access to a checking or savings account, these households lack the ability to store and save their income in secure accounts, potentially driving them to costly alternatives (e.g., check cashers and money order outlets) and potentially preventing them from accumulating wealth (Barr, Dokko and Keys 2012; Melzer 2011, 2018). Furthermore, the unbanked population cannot use direct-deposit or other costless methods to quickly access cash-based transfer payments, tax credits like the Earned Income Tax Credit and the monthly benefits from the 2021 Child Tax Credit expansion, or economic assistance payments provided by the federal government in times of economic crisis such as the Great Recession and the COVID-19 pandemic.

Advancements in nationally representative surveys tracking banking status have led to a growing literature examining inequality in banking access. In the 1980s and 1990s, nearly half of Black households were unbanked while over a third of households under 200% of the poverty line were unbanked (Carney and Gale 2000; Washington 2006). During this time, unbanked rates for Hispanics were similar to those of Blacks, with unbanked rates declining from nearly 40% in the late 1980s to nearly 30% in 2001 (Hogarth, Anguelov and Lee 2005). Bank access has continued to increase over time, with unbanked rates declining for Blacks and Hispanics to 29.1% and 24.3% respectively in the early 2000s (Rhine, Greene and Toussaint-Comeau 2006) and 26% in the 2010s for households with less than $50,000 in household income (Barcellos and Zamarro 2019). Furthermore, Blacks, Hispanics, and those with lower incomes, were less likely to have a bank account in the 2000s (Klawitter and Fletschner 2011; Hayashi and Minhas 2018) and were more likely to transition to being unbanked when experiencing an income or employment shock (Rhine and Greene 2013; Blanco et al. 2019). While providing many point estimates, the literature lacks a consistent time series of unbanked rates across race and Hispanic origin using an equivalized measure of income like the Official Poverty Measure (OPM).

In this paper, we fill this gap by presenting a historical time series of unbanked rates across poverty status, race, and Hispanic origin from the early 1980s to 2019 using data from three nationally representative household surveys: The Survey of Consumer Finances, the Survey of Income and Program Participation, and the Current Population Survey. We document declines in the national unbanked rate of nearly 10 percentage points, from an average of 14.1% in the 1980s to 5.3% in 2019. While these declines were seen for White, Black, and Hispanic households, large disparities remain between the groups. Unbanked rates for Black and Hispanic households fell from approximately 40% on average in the 1980s to 12.4% on average in 2019; nearly 5 times as high as the rate for White households.

We then highlight interactions between poverty status, race and Hispanic origin, and unbanked rates, finding that nearly half of all households in poverty were unbanked in the 1980s, while almost three quarters of Black and Hispanic households in poverty were unbanked (more than 30 percentage points higher than White households in poverty). By 2019, unbanked rates had dropped to 22.8% for all households in poverty, and 36.2% and 30.2% for Black and Hispanic households in poverty, still nearly double the rate

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[1] We use Black and White to refer to Black, non-Hispanic and White, non-Hispanic respectively.

of White households in poverty.[2] Notably, we show that while unbanked rates for households in poverty have fallen over time, approximately half of unbanked households continue to be classified as in poverty, suggesting that there is a strong relationship between economic well-being and the barriers which prevent households from having a bank account.

Finally, we decompose Black-White and Hispanic-White differences in unbanked rates to better understand the underlying features of the inequalities in bank access. Using a Kitagawa-Oaxaca-Blinder decomposition, we estimate the proportion of these differences that can be explained by differences in characteristics and those that cannot. Our estimates indicate that only half of the difference in household unbanked rates across the different groups can be explained by differences in characteristics, suggesting that Black and Hispanic households each face unique barriers to entry to obtaining a bank account. Using survey data on the main reasons why households are unbanked suggests that some of these issues lie with a lack of money, high or confusing fees, and a distrust of banks. Our results point towards minimum balance requirements being a particular source of inequality, as 7.6% of Black households, 5.5% of Hispanic households, and 1.0% of White households report being unbanked for this reason. These results complement Barcellos and Zamarro (2019) and Angrisani et al. (2020), who show that differences in unbanked rates between Whites and Blacks are explained by factors beyond income such as networks, and Hogarth, Anguelov and Lee (2003) who find that individuals in poverty most commonly cite product design (fees and not writing checks) and product motivation (not having enough money) as reasons for being unbanked.

Altogether, our results contribute to the literature by providing evidence of the consistent disparities in bank account ownership over the past four decades by economic well-being, race, and Hispanic origin. Furthermore, conducting the analysis across three nationally representative studies adds a layer of robustness to the results as well as motivating future research on bank access in each of the three surveys. The paper continues with a discussion in Section 2 of the three data sources used to produce unbanked rates and poverty status. Section 3 presents the historical time series followed by the decomposition of the Black-White and Hispanic-White differences in unbanked rates in Section 4. Section 5 concludes.

2   Data

To document how unbanked rates have evolved over time, we use data from three household surveys in the United States: the Survey of Consumer Finances (SCF), the Survey of Income and Program Participation (SIPP), and the Federal Deposit Insurance Corporation Survey of Household Use of Banking and Financial Services, which is a biannual supplement to the Current Population Survey (CPS FDIC).[3] Both the SCF and SIPP have provided data on bank account ownership since the 1980s through their asset modules, which provide detailed data about assets, including bank account holdings. The CPS FDIC is more recent, providing banking estimates biennially since 2009.

2.1 Survey of Consumer Finances (SCF)

The SCF is a leading source of household wealth data for the United States. The survey is sponsored by the Federal Reserve and has collected cross-sectional data triennially since 1983 with the most recent

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[2] The difference in unbanked rates between Blacks and Hispanics is not statistically different in 2019.
[3] The FDIC Survey of Household Use of Banking and Financial Services was formerly known as FDIC National Survey of Unbanked and Underbanked Households prior to the 2019 survey.

survey collection in 2019.[4] Each SCF interview involves collecting detailed information about the household balance sheet including assets, liabilities, and types of accounts held. We use the account ownership data collected in the SCF to determine banking status.

Given its interest in the household balance sheet, the SCF uses administrative tax data to oversample wealthy households, generally only excluding families on the Forbes 400 list. This allows the survey to capture a large portion of the right tail of the wealth distribution in the United States, with little income or wealth data being top-coded on the SCF public use files (PUF). Geographic information for sampled residences and select demographic data are omitted from the SCF PUF to protect respondent identity. For race and ethnicity, the SCF PUF includes information to identify heads of primary economic units (PEU) primarily identifying as White, Black, and Hispanic. SCF sample sizes range from around 4,000-6,500 PEUs per survey, with the 2019 Survey interviewing 5,783 PEUs.[5] Overall, our SCF sample includes 60,040 PEUs across years.

We construct banking status in the SCF based on whether the PEU holds a checking, savings, or money market account. While poverty status is not included on the SCF PUF, the files contain the necessary income and demographic data to calculate poverty status and income-to-poverty ratios needed for this analysis. To construct poverty status in the SCF, we use annual income and demographic data from the SCF combined with poverty thresholds produced by the Census Bureau.[6]

Starting with the 1989 Survey, the SCF incorporated replicate weights and multiple imputation producing 5 observations for each SCF PEU (Kennickell, 1991). To obtain accurate standard errors for SCF point estimates, we use the Stata package SCFSES, which adjusts standard errors to account for both imputation error and sampling variability error present on SCF files since the 1989 Survey. Beshears et al. (2018) provides additional detail about the package and on obtaining accurate SCF point estimates.[7]

2.2 Survey of Income and Program Participation (SIPP)

The SIPP is a nationally representative longitudinal survey administered by the Census Bureau for measuring income, program participation, and material well-being. Until its redesign in 2014, SIPP interviewed respondents every four months, commonly referred to as a wave, over a period ranging from two and a half to five years.[8] The first panel was the 1984 Panel and each subsequent panel through the 2008 Panel collected core information on demographics, employment, and earnings data while using occasional topical modules to collect data on items such as assets and liabilities, material well-being, and taxes. The 2014 redesign of the SIPP changed the survey process, meaning that interviews are conducted annually, and a condensed set of topical module questions are asked in each interview including banking account ownership and asset values.

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[4] The exception to this is the 2009 SCF, which reinterviewed 2007 SCF respondents. We excluded the 2009 results from this analysis.

[5] A PEU consists of an economically dominant single individual or couple in a household and all other individuals in the household who are financially interdependent. The size of the PEU equaled the household size in 86.5% of cases in 2019.

[6] Poverty thresholds are available at: https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html.

[7] For point estimates from the 1983 and 1986 SCF samples, we adjust standard errors to account for the sampling strata.

[8] Most SIPP Panels have run three to four years, with the longest, the 2008 Panel, following respondents for up to five years.

Using SIPP asset modules from earlier panels and the core asset content starting in the SIPP 2014 Panel, the SIPP provides banking estimates for those 15 and older over the 1984-2019 period in the years 1984-1989, 1991-2005, 2009-2011, and 2013-2019 with 2019 being the most recent reference year used in this analysis. Like the SCF, we construct banking status using information on whether any member of a household has any checking, savings, or money market accounts. During this time, there have been two major redesigns that affect banking estimates. Beginning with the 1996 Panel, SIPP asked more limited questions related to banking than in previous panels. The 1996 Panel and subsequent panels that followed this question design (2001, 2004, and 2008 Panels) had higher unbanked rates than the earlier SIPP Panels and captured fewer banking accounts relative to the SCF (Czajka, Jacobson and Cody 2003; Eggleston and Klee 2015). To address this, the asset and liability content was redesigned starting with the 2014 Panel. The 2014 SIPP redesign resulted in asset coverage rates which were comparable to those in the SCF (Eggleston and Gideon 2017).

Of the three surveys used in this analysis, SIPP is the only survey that contains information on poverty thresholds and banking status. Given that SIPP collects income data at a monthly level, SIPP has historically provided monthly poverty thresholds.[9] While it is possible to combine multiple poverty thresholds across a calendar year using SIPP to get an annual poverty measure, we instead use monthly poverty status from SIPP given that it is a more timely measure (typically being for the same month as the unbanked measure) and to not reduce sample size due to some respondents not having 12 monthly observations over the proceeding calendar year. Since the 2014 SIPP redesign moved interviews from every 4 months to 12 months, it is possible to show banking rates by both monthly and annual poverty status, without significantly reducing sample size. These rates are displayed in Table A2 as a robustness check and the estimates are comparable using both monthly and annual poverty status over the 2013-2019 period.

Excluding 1986, which had 5,322 households in our SIPP sample, individual year sample sizes ranged from 14,197 households for 2000 to 39,052 for 2005.[10] Pooling the data across years, there are 790,390 households in the sample. We use information from the asset module of the SIPP prior to the 2014 redesign, meaning that we capture respondents in these years three times at most. After the redesign, SIPP became an annual recall study, meaning that we capture respondents for the duration of the panel, which is at the maximum four years. To improve the accuracy of standard errors, SIPP introduced replicate weights starting in the 1996 Panel, which we incorporate for point estimates when available. For SIPP point estimates prior to 1996, we adjust standard errors through accounting for variance unit and stratum codes.

2.3 Current Population Survey (CPS)

The CPS is a primary source of labor force statistics for the United States. The CPS labor force questions are administered monthly to approximately 60,000 households with supplemental questions being asked after the labor force content in select months which includes the June banking supplement and the March income and poverty supplement.

The CPS FDIC supplement is the primary source of banking status for the FDIC and provides detailed information regarding why households in the United States are unbanked. Respondents are asked questions

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[9] The variable uses the annual poverty threshold for the given year, divided by 12, while adjusting each month for inflation using Consumer Price Index for all Urban Consumers (CPI-U).

[10] Due to some of the early SIPP panels following an overlapping panel structure, data on some individual years come from multiple panels for the year 1985-1988 and 1993. For the analysis, we exclude a small number of respondents with missing (or zero) monthly weights or where respondents had missing values for the variables used in this analysis.

about who controls household finances, whether they have a checking or savings account, and reasons why someone doesn't have an account amongst other questions. The survey is administered by the Census Bureau as a supplement to the monthly CPS, the source of monthly unemployment statistics in the United States. The first CPS FDIC supplement was administered in January 2009 and data has been collected biennially in June since 2011 with 2019 being the most recent year used in this analysis. Individuals aged 15 and older who report controlling all or a share of the financial decisions in a household are eligible for the supplement. Approximately 90% of households who complete the basic labor force questions appear in the CPS FDIC supplement from 2009 to 2011, with response rates falling to approximately 82% in the 2019 data.[11]

The CPS uses a 4-8-4 sampling structure, meaning that households are in the sample for four consecutive months, followed by a break of eight months, and then return to the sample for four additional months at the end of the cycle. This creates a longitudinal component to the survey, allowing households to be linked across months in which they participate in the survey. Since the basic monthly CPS does not contain information on poverty status, we exploit this sampling structure and link to the Annual Social and Economic Supplement (CPS ASEC), a supplement to the monthly CPS and the official source of income and poverty statistics conducted primarily in March. Using a technique similar to Madrian and Lefgren (2000), we link respondents in the two supplements (which occur in the same calendar year) by respondent identification numbers, sex and race, and allow age to vary by two years to account for the potential of birthdays in the intervening period. We match approximately 60% to 70% of eligible cases for each survey year, yielding an average annual unweighted sample size for 2013 to 2019 of 11,631 households.[12] The linked sample is reweighted using inverse probability weighting (IPW) to account for poverty status only being available for a subset of the CPS FDIC respondents. More details on the CPS, the linking procedure, and sample reweighting can be found in Appendix A1.

2.4 Differences Across Surveys

The main outcome of interest for this analysis is whether households are unbanked. Households in SIPP and in SCF are classified as unbanked if no members of a household have a checking, savings, or money market account.[13] For the FDIC ASEC, households are classified as unbanked if the respondent does not have a checking or savings account as there are no questions about money market accounts.

Banking coverage gaps vary greatly by survey. The SCF includes information on banking status in each interview, resulting in 13 years of banking estimates over the 1983-2019 period. Questions regarding bank account ownership in SIPP were asked in 33 of the 36-year span over the 1984-2019 period, while banking status in the CPS FDIC has been asked biennially over the 2009 to 2019 period. Since the sample size of the SCF does not allow for the study of smaller groups such as Asians using the SCF PUF, we focus on

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[11] The balance of respondents reports not having control of their finances or not responding to the screener question. The 2019 CPS FDIC supplement used hot deck imputation for item non-response (unlike earlier FDIC supplements). Responses for owning a checking or savings account are not allocated since the supplement screener question is linked to the unbanked question. Allocation rates for the reasons unbanked range from approximately 7% to 10%. More information is available in Appendix 1.

[12] The sample is larger for 2009 (13,583 households) since the CPS FDIC was collected in January that year increasing the number of people able to be matched.

[13] Consistent with how the FDIC classifies households, households who reported having a certificate of deposit account, but no checking, savings, or money market account are classified as unbanked.

householders classified as White, Black or Hispanic for differences across groups, while providing un-banked estimates from SIPP and CPS for Asians in the data Appendix Table A7.[14] Table 1 outlines some of the further differences in the surveys in terms of geographic and demographic characteristics.

Given that banking status is often measured at the household level, when comparing to poverty status, we use a household variant of the OPM. For the SCF and FDIC ASEC linked samples, we use household income and composition information to create an annual household poverty measure which uses the same definition of cash income as the OPM for resources and adjusts thresholds to match the composition of the household rather than the family.[15] We use a monthly household poverty measure in SIPP rather than an annual household poverty measure since it is timelier and to not reduce statistical power for earlier SIPP interviews.[16]

In addition to the SCF having limited race and Hispanic origin categories, it lacks some of the demographic, geographic, and individual-level details that are strengths of SIPP and the FDIC ASEC linked sample. Further, it is not possible to capture specifics of different household compositions across different boundaries (such as multi-race households) that can be captured in SIPP and FDIC ASEC since data is collected only for the head of the PEU.

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[14] Early SCF public use files contained data about Asians. This information was removed in 1989. SIPP and the CPS have large enough sample sizes to cover these groups. Estimates of unbanked rates for these groups can be found in Table A7.

[15] The OPM is constructed at the family level, defined as all individuals in a household who are related by birth, marriage or adoption, in official publications. Thresholds are equivalized based on the number of adults and children in the household. Resources are defined as cash income, such as earnings, Social Security benefits, and retirement income.

[16] Unbanked rates by monthly and annual poverty status are similar across the 2013-2019 period. See section A2 of the data appendix for additional details.

Table 1: Survey Differences through 2019

	SCF	SIPP	FDIC ASEC
Time Frame	**1983-2019 (13 years)**	**1984-2019 (33 years)**	**2009-2019 (6 years)**
Sample	Sample selected to obtain coverage of interested topics and oversample of wealthy. Primary Economic Units (PEU)	Household survey. Civilian, non-institutionalized population	Household survey. Civilian, non-institutionalized population
Unbanked Status	PEU has zero checking or savings accounts	No checking, savings, or money market accounts in household	No checking or savings accounts in household
Poverty Status	Calculated based on PEU income and composition using Census poverty thresholds	Monthly measure created at household level	Uses CPS-ASEC Household Income and official poverty thresholds to create annual metric
Race and Hispanic Origin	Only White non-Hispanic, Black non-Hispanic, Hispanic, and Other available	Detailed race and Hispanic origin on 6 primary groups	Detailed race and Hispanic origin on 6 primary groups
Lowest Geographic Coverage	United States for public use file	State and Select Metro Areas prior to 1996	State and Select Metro Areas
Health Status	Excellent, Good, Fair, Poor	Excellent, Very Good, Good, Fair, Poor	Excellent, Very Good, Good, Fair, Poor
Net Assets	Sum of PEU assets across a range of different asset types (home, vehicle, financial)	Sum of household assets across a range of different asset types (home, vehicle, financial)	Not included in the FDIC-CPS sample
Sample Households 2013-2019	18,040	159,038	46,522
Sample Households All Years	60,040	790,390	88,446

Note: PEU is similar to the U.S. Census Bureau definition of a family. All data is public-use data.

3. Banking Status Over Time

3.1 Historical Banking Rates

Our historical datasets enable us to produce estimates of unbanked rates in the United States across nearly 40 years, building on existing estimates for single-years and short-run time series. We provide single-year unbanked rates for each of our surveys and pool banking rates for the start (1980s) and end of the series (2010s) to capture more general long-run trends and increase statistical power. For estimates for the 2010s, we use all available estimates for 2013-2019 as 2013 was the first year that all three surveys provided banking rates in the same calendar year. As discussed in Section 2, SIPP banking estimates from 1996-2012 likely do not identify some respondents who are banked due to changes in the asset questionnaire.[17] To reflect this, SIPP unbanked rates from these years are denoted by a shape with no fill. For poverty rate changes over time, we present figures, while providing annual unbanked rates from each survey in Appendix Table A3 and annual unbanked rates by poverty status for those in poverty (Appendix Table A4) and those not in poverty (Appendix Table A5).
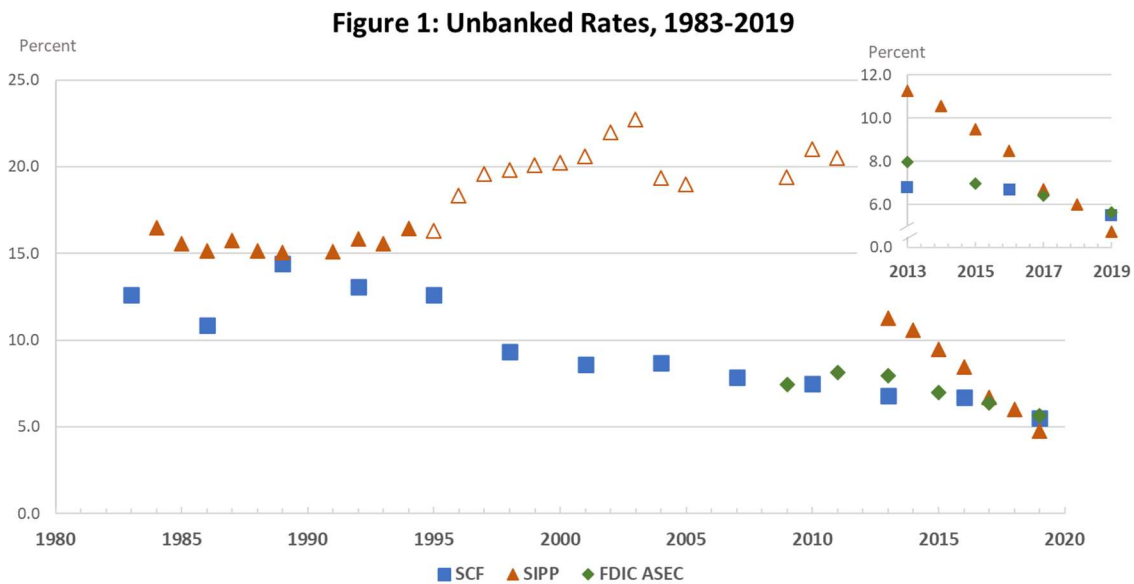
Figure 1: Unbanked Rates, 1983-2019

Note: To reflect that SIPP captured fewer bank accounts after a question change over the 1996-2011 period, SIPP estimates for these years have no fill. See Czajka, Jacobson and Cody (2003). Source: Survey of Consumer Finances Public Use Files, 1983-2019; Survey of Income and Program Participation Public Use Files, 1984-2020; Current Population Survey Public Use Files, 2009-2019.

Figure 1 plots unbanked rates for each survey-year. As shown, the percentage of unbanked households has declined over time, falling from an average of 14.1% (SCF: 12.7%; SIPP 15.5%) in the 1980s to an average of 7.1% (SCF: 6.3%; SIPP: 8.2%; FDIC ASEC: 6.7%) in the 2010s. Average unbanked rates were not significantly different from the early 1980s until the mid-1990s when rates began a steady fall to the present. The period also marks the beginning of a steady decline in the overall unbanked rate that continues to 2019. The inset of Figure 1 shows that unbanked rates declined by one to five percentage points from

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[17] As discussed in the data section, the SIPP question relating to banking accounts was changed during the 1996 Panel, which resulted in the SIPP capturing significantly fewer banking accounts until the question was updated starting in the 2014 Panel. Given this, SIPP banking estimates prior to 1996 and after 2012 tend to be of significantly higher quality than the data years in between. For banking rates from 1996-2012, we primarily rely on data from the SCF, which asked more consistent questions relating to banking over this period.

2013 to 2019 across the three surveys, with the surveys largely converging by 2019 (SCF: 5.5%; SIPP: 4.8%; FDIC ASEC: 5.3%) with an average rate across surveys of 5.3%.[18]

3.2 Banking Rates by Race

While the share of households that are unbanked has decreased over time, large differences in banking rates by race and Hispanic origin persist. Unbanked rates for White households averaged 8.5% in the 1980s (SCF: 6.8%; SIPP: 10.2%). Comparatively, unbanked rates were nearly five times higher for Black households at 41.7% (SCF: 39.6%; SIPP: 43.9%) and four times higher for Hispanic households at 36.3% (SCF: 36.2%; SIPP: 36.5%).

Figure 2: Unbanked Rates by Race and Hispanic Origin, 1983-2019
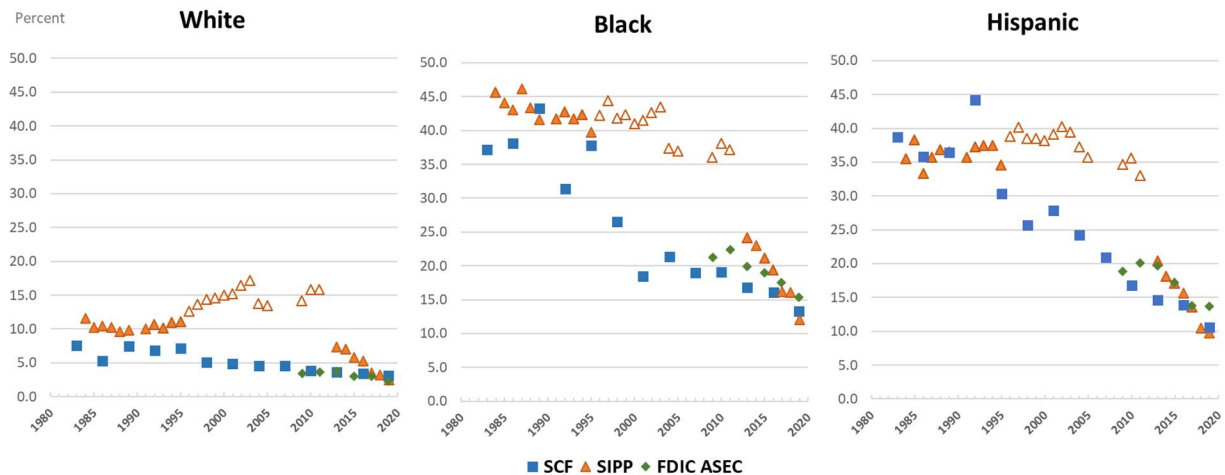
Note: Whites refers to White, non-Hispanic. Blacks refers to Black, non-Hispanic. To reflect that SIPP captured fewer bank accounts after a question change over the 1996-2011 period, SIPP estimates for these years have no fill. See Czajka, Jacobson and Cody (2003). Source: Survey of Consumer Finances Public Use Files, 1983-2019; Survey of Income and Program Participation Public Use Files, 1984-2020; Current Population Survey Public Use Files, 2009-2019.

While household unbanked rates have decreased over time for each of the three groups examined, unbanked rates for Black and Hispanic households have remained particularly high. By 2019, White households had unbanked rates that averaged 2.6% (SCF: 3.0%; SIPP: 2.5%; FDIC ASEC: 2.3%). In comparison, Black households had average unbanked rates of 13.6% (SCF: 13.2%; SIPP: 12.1%; FDIC ASEC: 15.3%), still around 5 times higher than those of Whites. Meanwhile, Hispanic households had an average unbanked rate of 11.3% (SCF: 10.5%; SIPP: 9.7%; FDIC ASEC: 13.6%) for 2019, about 4 times higher than for Whites.[19]

3.3 Banking Rates and Poverty

Much of the literature has used a set value of household income to define low-income populations when examining the relationship between economic well-being and unbanked rates (Hogarth, Anguelov and Lee 2003; Washington 2006; Rhine, Greene and Toussaint-Comeau 2006; Barr, Dokko and Keys 2012; Barcellos and Zamarro 2019). While easily defined in most household surveys, household income alone does not account for household size. For example, smaller households with the same income as larger households are likely better off, holding all other factors the same. To show this, Figure 3 displays the unbanked

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[18] Unbanked rates between SCF and FDIC ASEC are not statistically different.

[19] Asians had lower unbanked rates than other groups including Whites with an unbanked rate of 1.1% for 2019 from the FDIC ASEC linked sample. Asian identifiers are not available in the public-use SCF. Appendix Table A6 provides unbanked rates for Asians in the SIPP and FDIC ASEC.

rates for three household income levels ($25,000; $35,000; $50,000) in 2019 dollars as well as the household OPM. For the FDIC ASEC and SIPP, we also include unbanked rates for the Supplemental Poverty Measure (SPM). The SPM builds on the OPM by capturing noncash benefits, taxes, differences in cost of living, and necessary expenses including childcare, medical, and work-related expenses, which are not accounted for in the OPM.[20]

Figure 3: Percent of Unbanked Households by Selected Categories, 2010s
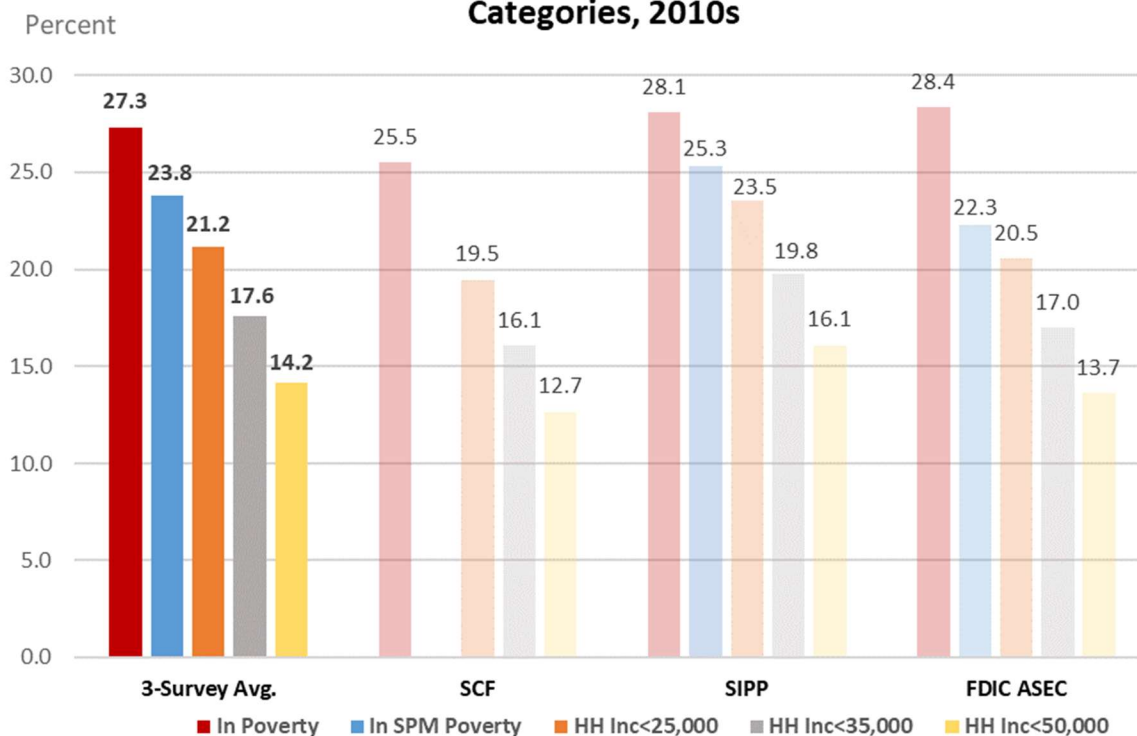
Note: Data averaged over 2013-2019. Ordered by magnitude. Source: Survey of Consumer Finances Public Use Files, 2013-2019; Survey of Income and Program Participation Public Use Files, 2014-2020; Current Population Survey Public Use Files, 2009-2019.

Households in poverty are more likely to be unbanked than those in any of the three household income measures and the SPM. Unbanked rates for those in poverty averaged 27.3% in the 2010s (SCF: 25.5%; SIPP: 28.1%; FDIC ASEC: 28.4%), while those with household incomes less than $25,000 had an average rate of 21.2% (SCF: 19.5%; SIPP: 23.5%; FDIC ASEC: 20.5%). Unbanked rates were lower for higher household income levels, with households with incomes less than $35,000 and less than $50,000 having an average unbanked rate of 17.6% (SCF: 16.1%; SIPP: 19.8%; FDIC ASEC: 17.0%) and 14.2% (SCF: 12.7%; SIPP: 16.1%; FDIC ASEC: 13.7%) respectively. Collectively, those in poverty were 1.1 times more likely to be unbanked than those in SPM poverty, 1.3 times more likely than those with household incomes less than

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[20] For additional details about the SPM, see Fox and Burns (2021).

$25,000, 1.6 times more likely than those with household incomes less than $35,000, and 1.9 times more likely than those with household incomes less than $50,000.

Unbanked rates for households classified in poverty by the SPM averaged 23.8% (SIPP: 25.3%; FDIC ASEC 22.3%), lower than the rates for households in OPM poverty, but comparable to households with incomes of $25,000 or less. A likely reason for this is the negative correlation between household income and unbanked status. SPM thresholds are generally higher than OPM thresholds and are on average in the $20,000-$25,000 range. The difference, like with the OPM thresholds, are the equivalence scales which make a bigger difference at lower levels of household income.

Figure 4 presents estimates of unbanked rates from the 1983 through 2019 period for households in poverty. At the start of the series in the 1980s, 49.6% (SCF: 45.5%; SIPP: 53.8%) of households in poverty were unbanked compared to 8.4% (SCF: 6.8%; SIPP: 9.9%) of those not in poverty. Therefore, households in poverty were on average over six times more likely to be unbanked than those not in poverty.

Figure 4: Unbanked Rates for Households in Poverty, 1983-2019

Note: To reflect that SIPP captured fewer bank accounts after a question change over the 1996-2011 period, SIPP estimates for these years have no fill. See Czajka, Jacobson, and Cody (2003). Source: Survey of Consumer Finances Public Use Files, 1983-2019; Survey of Income and Program Participation Public Use Files, 1984-2020; Current Population Survey Public Use Files, 2009-2019.

Unbanked rates for households in poverty, while high, remained relatively stable through the early 1990s. By the 2010s, the average unbanked rate across surveys was 27.3% (SCF: 25.5%; SIPP: 28.1%; FDIC ASEC: 28.4%) for households in poverty relative to 4.2% (SCF: 3.7%; SIPP: 5.1%; FDIC ASEC: 3.8%) for those that were not in poverty.

3.4 Banking Rates, Race, and Poverty

Figure 5 brings together race, Hispanic origin, and poverty status, displaying the average household unbanked rate across the surveys for those in poverty. The figure underscores some of the significant inequalities in unbanked rates that exist for Blacks and Hispanics in poverty. Black and Hispanic households in the 1980s had staggeringly high unbanked rates. Nearly three quarters of Black and Hispanic households in poverty were unbanked in the 1980s. Unbanked rates for Black households in poverty averaged 73.6%

across the surveys (SCF: 68.9%; SIPP: 78.4%) and averaged 66.5% for Hispanic households (SCF: 58.0%; SIPP: 75.0%). Meanwhile, White households that were in poverty during this period had an average unbanked rate of 34.4% (SCF: 28.5%; SIPP: 40.3%), implying that poor Black and Hispanic households had unbanked rates that were nearly double that of White households in poverty. There was a large distinction in unbanked rates between households either in poverty or not in poverty. For Black and Hispanic households, unbanked rates were over 2.5 times higher for households in poverty, while for Whites they are approximately 6 times larger.

As was the case for the overall series, unbanked rates by race and poverty status have declined over time. Yet, unbanked rates for households in poverty have remained high in comparison, especially among Black and Hispanic households. In 2019, unbanked rates for Black households in poverty averaged 36.2% (SCF: 35.1%; SIPP: 31.7%; FDIC ASEC: 41.8%) and 30.2% for Hispanic households (SCF: 33.4%; SIPP: 27.1%; FDIC ASEC: 30.1%).[21] These rates are over twice as high as the unbanked rate for White households in poverty, which averaged 14.2% (SCF: 14.4%; SIPP: 13.7%; FDIC ASEC: 14.5%). The gap between households in poverty and not in poverty has grown for all three groups, as unbanked rates for Black and Hispanic households in poverty are approximately 4 times higher than the rates for those not in poverty, while for White households, those in poverty have unbanked rates now over 8 times as high as those not in poverty.

Figure 5: Unbanked Rates By Race and Hispanic Origin in Poverty, 1983-2019
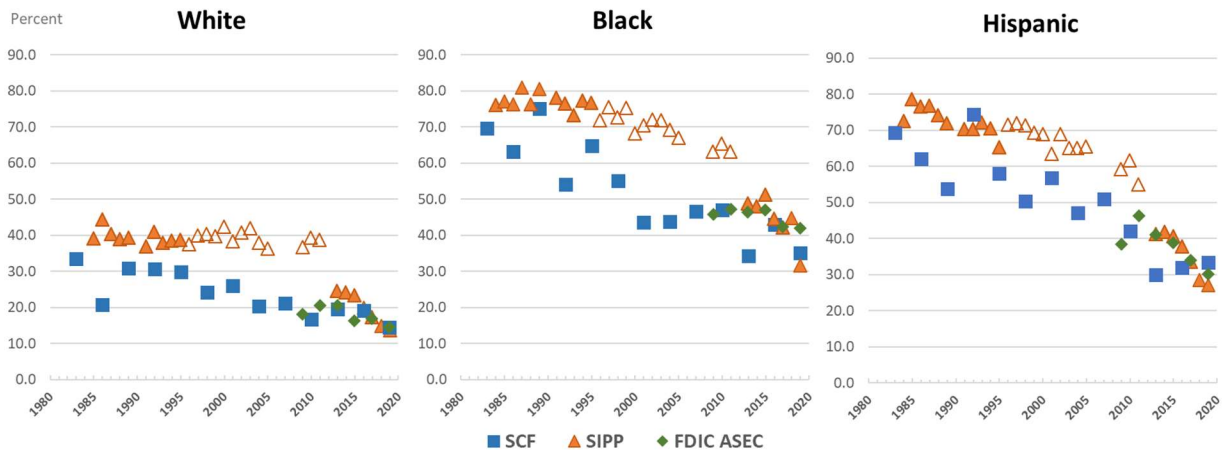
Note: Whites refers to White, non-Hispanic. Blacks refers to Black, non-Hispanic. To reflect that SIPP captured fewer bank accounts after a question change over the 1996-2011 period, SIPP estimates for these years have no fill. See Czajka, Jacobson, and Cody (2003). Source: Survey of Consumer Finances Public Use Files, 1983-2019; Survey of Income and Program Participation Public Use Files, 1984-2020; Current Population Survey Public Use Files, 2009-2019.
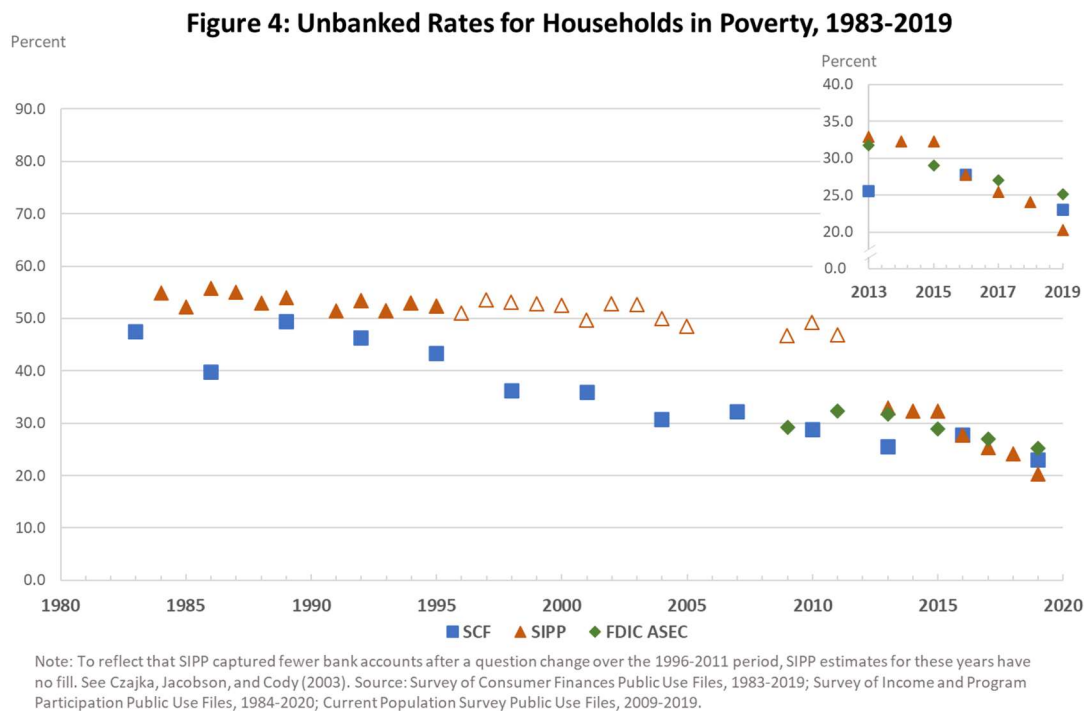
Finally, it is important to examine the composition of unbanked households. Figure 6 shows that in the 1980s, an average of 49.6% of households classified as in poverty were unbanked, while 49.9% of the unbanked households were classified as in poverty. By the 2010s, the share of households in poverty who were unbanked had fallen to 27.3% while the share of the unbanked households who were living in poverty was 48.5%, showing little change over four decades. Overall, while households in poverty have gained greater access to bank accounts over this 40-year period, the unbanked remain a particularly economically deprived population.

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[21] The difference in unbanked rates for Blacks and Hispanics in poverty in 2019 is not statistically different.

Figure 6: Average Shares of Population by Banking and Poverty Status, Survey Average
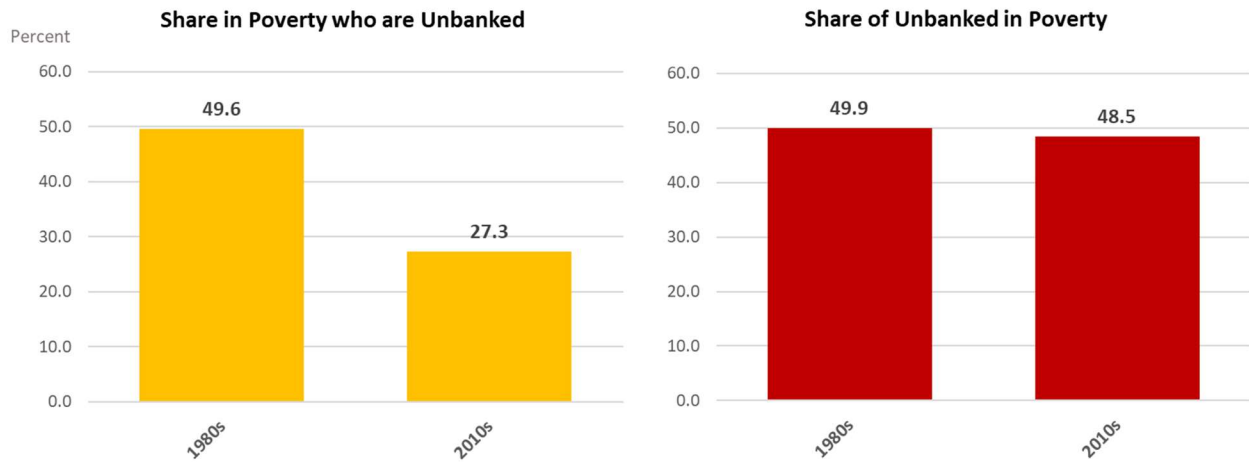
Note: Surveys averaged over years. Source: Survey of Consumer Finances Public Use Files, 1983-1989, 2013-2019; Survey of Income and Program Participation Public Use Files, 1984-1989, 2014-2020; Current Population Survey Public Use Files, 2013-2019.

4. Exploring Differences in Unbanked Rates

Given the large disparities in household bank account ownership by race and poverty status documented in Section 3, this section provides insight into the drivers of these disparities. To examine this, we take a threefold approach. We first examine differences in unbanked rates based on a large set of demographic variables to provide additional insight into which households are unbanked. We then decompose the Black-White and Hispanic-White gap in household unbanked rates for the 2010s across the three surveys. Lastly, we examine self-reported reasons for being unbanked to provide additional insight into why differences occur.

4.1 Summary Statistics

Table 2 presents descriptive statistics and unbanked rates by economic and demographic characteristics for the sample of households drawn from each survey. For these statistics, person level household demographics are those of the householder.[22] Examining the groups in the table, non-citizen householders had unbanked rates that were 2.4 times higher than for citizens (17.9% vs. 6.7%). For female householders, just under 10% were unbanked in the SCF and SIPP compared to 5.5% in FDIC ASEC.[23] To that point in Table 2, unmarried householders had higher unbanked rates in each survey, with unmarried householders having an average unbanked rate (10.6%) that was three times higher than married individuals (3.4%).

In terms of age, younger householders were generally more likely to be unbanked relative to older householders, with those age 19-29 and 30-39 having average unbanked rates of 10.1% and 9.2% respectively, compared to a rate of 4.2% for those aged 65 and over. More educated householders had lower unbanked rates with those with the highest level of education (bachelor's degree or higher) having an average unbanked rate of 1.3% compared to 5.7% for those with some college, 9.7% for those with a high school

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[22] The Census Bureau defines the householder as the person (or one of the people) whose name the housing unit is owned, rented, or maintained and if no such person exists, any adult member excluding roomers, boarders, or paid employees. The household reference person is also the householder.

[23] Unbanked rates in SCF and SIPP for female householders are not statistically different.

degree, and 22.7% for those with less than a high school degree. In terms of health, householders with fair or poor health had unbanked rates (10.4%) that were around twice as high as those that reported being in better health (5.5%). For region, the South, which is the largest Census region by population (as shown in Table 2) had the highest unbanked rate (9.2%) of all regions. This was approximately 1.5 times as high as the unbanked rate of the Northeast region (6.1%).[24]

Table 2: Sample Descriptive Statistics for Selected Characteristics, 2013-2019

	Three Survey Average Unbanked Rates	Unbanked Rate			Weighted Share of Sample		
		SCF	SIPP	FDIC ASEC	SCF	SIPP	FDIC ASEC
Household in Poverty	27.3	25.5	28.1	28.4	12.2	13.2	11.9
	(0.7)	(1.1)	(0.4)	(0.7)	(0.1)	(0.1)	(0.2)
White	3.8	3.4	5.0	3.0	72.3	66.5	67.3
	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.2)
Black	17.3	15.3	18.8	17.8	16.2	12.7	12.4
	(0.5)	(0.8)	(0.4)	(0.6)	(0.1)	(0.1)	(0.2)
Hispanic	14.6	13.0	14.8	15.9	11.5	13.5	13.3
	(0.5)	(0.8)	(0.4)	(0.5)	(0.1)	(0.1)	(0.2)
Citizen	6.7	-	7.6	5.7	-	94.0	92.8
	(0.1)	-	(0.1)	(0.1)	-	(0.1)	(0.2)
Non-Citizen	17.9	-	16.5	19.3	-	6.0	7.2
	(0.5)	-	(0.6)	(0.8)	-	(0.1)	(0.2)
Female Householder	8.1	9.6	9.3	5.5	28.0	54.0	49.6
	(0.2)	(0.4)	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
Male Householder	6.6	5.1	6.8	8.0	72.0	46.0	50.4
	(0.2)	(0.2)	(0.1)	(0.2)	(0.2)	(0.2)	(0.3)
Married	3.4	2.8	4.1	3.3	46.6	49.2	49.9
	(0.1)	(0.2)	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)
Not Married	10.6	9.5	12.0	10.2	53.4	50.8	50.1
	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
Less than 19 years old	20.7	-	26.2	15.3	-	0.3	0.3
	(2.2)	-	(2.1)	(3.9)	-	(0.0)	(0.0)
19 to 29 years old	10.1	8.7	11.6	9.9	11.6	12.1	12.2
	(0.3)	(0.3)	(0.4)	(0.5)	(0.1)	(0.1)	(0.2)
30 to 39 years old	9.2	8.8	9.2	9.5	16.9	16.9	16.6
	(0.3)	(0.3)	(0.3)	(0.4)	(0.1)	(0.1)	(0.2)
40 to 49 years old	7.6	6.6	8.7	7.5	17.1	17.1	17.3
	(0.2)	(0.2)	(0.2)	(0.3)	(0.1)	(0.1)	(0.2)
50 to 59 years old	7.2	7.3	8.3	6.1	19.4	19.4	19.1
	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.1)	(0.2)
60 to 64 years old	5.8	5.8	6.6	5.1	9.3	9.1	9.4
	(0.3)	(0.3)	(0.3)	(0.4)	(0.1)	(0.1)	(0.1)
65 and older	4.2	3.3	5.6	3.7	25.8	25.0	25.0
	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.1)	(0.2)

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[24] Unbanked rates for the Northeast, Midwest, and West are not statistically different.

Table 2: Sample Descriptive Statistics for Selected Characteristics, 2013-2019 (continued)

	Three Survey Average Unbanked Rates	Unbanked Rate			Weighted Share of Sample		
		SCF	SIPP	FDIC ASEC	SCF	SIPP	FDIC ASEC
Less than HS Education	22.7	20.6	24.2	23.2	12.4	10.0	10.1
	(0.6)	(1.0)	(0.5)	(0.7)	(0.1)	(0.1)	(0.2)
High School Education	9.7	8.4	11.5	9.2	27.0	25.7	27.3
	(0.3)	(0.4)	(0.2)	(0.3)	(0.2)	(0.2)	(0.3)
Some College (inc. AA)	5.7	4.9	6.9	5.2	27.0	29.3	28.8
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
Bachelor's Degree or Higher	1.3	0.9	2.1	1.0	33.6	35.0	33.9
	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.2)	(0.3)
Reports Excellent, Very Good, or Good Health	5.5	4.4	6.7	5.5	72.9	(81.6)	83.8
	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.2)
Reports Fair or Poor Health	10.4	11.7	6.7	12.9	27.1	(18.4)	16.2
	(0.2)	(0.2)	(0.1)	(0.4)	(0.2)	(0.1)	(0.2)
Northeast	6.1	-	6.3	6.0		17.6	18.0
	(0.2)	-	(0.2)	(0.3)		(0.1)	(0.2)
Midwest	6.2	-	7.0	5.5		22.0	22.0
	(0.2)	-	(0.2)	(0.3)		(0.1)	(0.2)
South	9.2	-	10.5	8.0		38.0	37.7
	(0.2)	-	(0.2)	(0.3)		(0.1)	(0.3)
West	6.6	-	6.9	6.3		22.5	22.3
	(0.2)	-	(0.2)	(0.3)		(0.1)	(0.2)
Observations	223,600	18,040	159,038	46,522	18,040	159,038	46,522

Note: In Percent. SCF and SIPP estimates weighted using survey specific weights, FDIC ASEC weighted using linked inverse probability weights. Blank estimates indicate missing information on survey. Three-survey average created by averaging survey-specific estimates together. Observations in that column represent sum of all surveys. Source: Survey of Consumer Finances Public Use Files, 2013-2019; Survey of Income and Program Participation Public Use Files, 2014-2020; Current Population Survey Public Use Files, 2013-2019. Standard errors generated using survey specific replicate weights.

In terms of sample composition, the differences in the SCF compared to SIPP and FDIC ASEC linked sample are apparent. The SCF had a higher proportion of Whites and males while having a lower proportion of Hispanics and married individuals. For the more comparable (in sample design) SIPP and FDIC ASEC linked samples, there are some selected characteristics which are statistically different, but the samples are largely comparable.[25]

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[25] Sample composition for households in poverty, Whites, citizen/non-citizen, male/female, under age 19 and age 65 and older, education status and health status are all statistically different in the SIPP/FDIC ASEC sample.

4.2 Kitagawa-Oaxaca-Blinder Decomposition

Kitagawa-Oaxaca-Blinder decompositions provide a way to help explain the differences in unbanked rates by race and poverty status that were presented in Section 3. The decompositions explain how differences in unbanked rates are attributed to variations across groups in characteristics and returns to those characteristics. These decompositions are estimated for each of the three surveys and allow us to examine a host of household level characteristics available across the three surveys while also providing a robustness check.

If we assume that the unbanked rate is a function of a linear combination of independent variables, where the function F could be linear or non-linear, so that unbanked= $F(X\beta)$. Then the mean difference in unbanked rates for two groups, W and G, can be decomposed as:

$$\overline{U_W} - \overline{U_G} = \left[\overline{F(X_W\beta_W)} - \overline{F(X_G\beta_W)}\right] + \left[\overline{F(X_G\beta_W)} - \overline{F(X_G\beta_G)}\right] \tag{1}$$

with the overbar representing the mean value. The method separates the difference in unbanked rates between two groups into endowments, which account for the distinct characteristics of each group, and coefficients, which account for the returns to those distinct characteristics for each group. Given that our outcome variable of interest is non-linear, we follow Yun (2004) and extend Kitagawa-Oaxaca-Blinder decompositions to non-linear settings.[26] We use a pooled weighting matrix to simplify a threefold decomposition (where the third component is an interaction effect) into a twofold, where one component is the "explained" component, and the other is "unexplained". Defining the Pr(unbanked=1 | X) = $\phi(X\beta)$, where ϕ is a standard normal cumulative distribution function, we can rewrite Equation 1 as:

$$\overline{U_W} - \overline{U_G} = \underbrace{\sum_{i=1}^{K} W_{\Delta X}^i \left[\overline{\phi(X_W\beta_W)} - \overline{\phi(X_G\beta_W)}\right]}_{explained\ component} + \underbrace{\sum_{i=1}^{K} W_{\Delta\beta}^i \left[\overline{\phi(X_G\beta_W)} - \overline{\phi(X_G\beta_G)}\right]}_{unexplained\ component} \tag{2}$$

Where:

$$W_{\Delta X}^i = \frac{(X_W^i - X_G^i)\,\beta_A^i}{(X_W^i - X_G^i)\,\beta_A^i}, W_{\Delta\beta}^i = \frac{\overline{X}_B^i (\beta_W^i - \beta_G^i)}{\overline{X}_B (\beta_W - \beta_G)}, \sum_{i=1}^{K} W_{\Delta X}^i = \sum_{i=1}^{K} W_{\Delta\beta}^i = 1 \tag{3}$$

Here, $\overline{U_W}$ is the mean unbanked rate for Whites, $\overline{U_G}$ is the mean unbanked rate for Blacks or Hispanics depending on the specification. For Equation 2, the first component is what is explained by raw differences in characteristics while the second component is what is unexplained, or the differences to the returns to those characteristics. The explained and unexplained effects are important from a policy perspective as they suggest potential channels which underlie the overall differences across groups. Previous literature has suggested that these unexplained factors could be attributed to unobserved factors such as discrimination (Kitagawa 1955; Blinder 1973; Oaxaca 1973; Oaxaca and Ransom 1994, 1999; Barcellos and Zamarro 2019; Angrisani et al. 2020).

We estimate four different specifications of X across the surveys to examine the Black-White and Hispanic-White differences in unbanked rates. Given the high unbanked rate of those in poverty, especially among

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[26] See Fairlie (2005) for an alternative method for calculating probit decompositions.

Blacks and Hispanics, Specification 1 examines how differences in raw household income-to-poverty-ratios explain differences in banking status.[27] We then progressively add controls to account for factors that could affect banking status. Specification 2 adds additional controls for household size (linear) and categorical controls for gender (male or female), housing tenure (owner or renter), education (less than high school, high school, some college no degree, bachelor's degree and higher), labor force status (weeks worked), and health status (whether the respondent had fair or poor health), and controls for age group. [28] To address identification issues that may arise when using categorical variables, we follow Yun (2004; 2005) and use a normalized regression equation that can be extended for non-linear models.

Specification 3 includes additional controls for citizenship (citizen, non-citizen) and geographic controls for census region and metro status using the SIPP and the FDIC ASEC linked sample since these variables are not available on the SCF PUF. Controlling for citizenship is especially important in the White-Hispanic models since Mexican and other Latin American immigrants often have high unbanked rates (Rhine and Greene 2006). Lastly, Specification 4 includes household assets as a control (only in SIPP and SCF) to examine how differences in asset ownership affect household banking status.

4.3 Explaining Differences in Unbanked Rates

Table 3 presents the decomposition results using pooled data for the 2010s. For Black and Hispanic households, both the differences in characteristics and the differences to the returns to these characteristics significantly impact the overall gap. In the most detailed specifications (Specifications 3 and 4), less than half (5.6 percentage points on average) of the average 13.6 percentage point difference in Black and White household unbanked rates was explained by differences in characteristics. This suggests that barriers to entry are a driving force in the Black-White difference in unbanked rates.

Meanwhile for Hispanic households, the predominate driver of the Hispanic-White difference is differences in characteristics. In the most detailed specifications, differences in characteristics between Hispanic and White households make up more than half (6.6 percentage points) of the 10.8 percentage point difference in unbanked rates on average. Barriers to entry are still an important factor however, as the unexplained component still comprises approximately 40% of the overall difference in unbanked rates.

While the overall trends are comparable across surveys, as seen in both Tables 2 and 3, both the SIPP and FDIC ASEC capture larger Black/White differentials in banking rates of 2-3 percentage points relative to the SCF.[29] Interestingly the explained portion in Specification 2, which is estimated for all three surveys, shows explained portions of around 5 percentage points for each survey (4.7-4.9 percentage points), leading much of the higher Black/White differential from SIPP and FDIC ASEC to the unexplained component. The FDIC ASEC also captured larger Hispanic/White differentials than SCF or SIPP which also led it to have a higher unexplained component.[30]

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[27] The income-to-poverty ratio is a measure of how much income a household has compared to their poverty threshold. Ratios below one indicates that a household is in poverty, while ratios greater than or equal to one indicate the multiplier by which income exceeds the poverty threshold.

[28] Age groups are listed in Table 2.

[29] Estimated differentials in the SIPP and FDIC ASEC are not statistically different.

[30] Estimated differentials in the SCF and SIPP are not statistically different.

Table 3: Decomposition Results: 2013-2019, stratified by race

Specification	Black/White Decompositions				Hispanic/White Decompositions			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
SCF								
Difference	-11.9***	-11.9***	-	-12.0***	-9.6***	-9.6***	-	-9.6***
	(0.6)	(0.5)		(0.4)	(0.5)	(0.5)		(0.5)
Explained	-2.9***	-4.7***	-	-5.7***	-3.0***	-6.6***	-	-6.9***
	(0.3)	(0.3)		(0.2)	(0.3)	(0.3)		(0.3)
Unexplained	-9.1***	-7.2***	-	-6.3***	-6.6***	-3.0***	-	-2.8***
	(0.4)	(0.4)		(0.4)	(0.4)	(0.4)		(0.4)
		N=(15,378)				*N=(14,772)*		
SIPP								
Difference	-13.9***	-13.9***	-13.9***	-14.0***	-9.9***	-9.9***	-9.9***	-9.9***
	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Explained	-2.0***	-4.9***	-5.4***	-6.2***	-1.8***	-5.2***	-5.6***	-6.2***
	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
Unexplained	-12.0***	-9.0***	-8.5***	-7.8***	-8.1***	-4.7***	-4.3***	-3.7***
	(0.4)	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)	(0.4)	(0.4)
		N=(128,445)				*N=(127,782)*		
FDIC ASEC								
Difference	-14.8***	-14.9***	-14.9***	-	-13.0***	-13.0***	-13.0***	-
	(0.6)	(0.6)	(0.6)		(0.5)	(0.6)	(0.6)	
Explained	-1.8***	-4.9***	-4.8***	-	-1.8***	-5.3***	-6.8***	-
	(0.4)	(0.3)	(0.3)		(0.3)	(0.4)	(0.5)	
Unexplained	-13.0***	-10.0***	-10.1***	-	-11.2***	-7.7***	-6.1***	-
	(0.7)	(0.6)	(0.6)		(0.6)	(0.6)	(0.7)	
		N=(36,277)				*N=(36,523)*		
Demographic Controls	-	X	X	X	-	X	X	X
Geographic Controls and Citizenship	-	-	X	X	-	-	X	X
Net Assets	-	-	-	X	-	-	-	X

* p<0.1, ** p<0.05, *** p<0.01. Note: In percent. Household level estimates. Estimates weighted by inverse probability replicate weights, with robust standard errors. Results from Probit Model. Pooled Decomposition. Source: Survey of Consumer Finances Public Use Files, 2013-2019; Survey of Income and Program Participation Public Use Files 2014-2020; Current Population Survey Public Use Files 2013-2019.

Table 4 limits the sample for the decomposition to those in poverty. Estimates from the most detailed specifications (Specification 3 and 4) do not differ substantially from those with the full sample in Table 3, although the magnitude of the estimates is larger, reflecting the higher unbanked rates for households in poverty. For Black households in poverty, the share of the difference in unbanked rates made up by differences in characteristics is less than half of the overall difference (8.2 percentage points). For Hispanic households, explained factors make up over half (9.9 percentage points) of the difference. Similar to Table

3, SIPP and FDIC ASEC showed the largest Black/White and Hispanic/White differentials for those in poverty with differentials that were 5 to 8 percentage points higher than the Black/White SCF differential, while FDIC ASEC had a larger Hispanic/White differential than SCF.[31]

Table 4: Decomposition Results: 2013-2019, Stratified by Race, Subsample in Poverty

	Black/White Decompositions				Hispanic/White Decompositions			
Specification	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
SCF								
Difference	-19.7***	-19.6***	-	-19.8***	-13.9***	-14.0***	-	-14.0***
	(1.1)	(1.1)		(1.2)	(1.3)	(1.3)		(1.3)
Explained	0	-5.2***	-	-7.5***	0.4***	-7.9***	-	-8.6***
	(0.1)	(0.5)		(0.6)	(0.1)	(0.8)		(0.8)
Unexplained	-19.7***	-14.5***	-	-12.3***	-14.3***	-6.0***	-	-5.4***
	(1.2)	(1.2)		(1.2)	(1.3)	(1.4)		(1.4)
		N=(1,501)				N=(1,360)		
SIPP								
Difference	-24.6***	-24.6***	-24.6***	-24.7***	-15.9***	-15.9***	-15.9***	-16.0***
	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)	(1.0)
Explained	-0.0^	-6.5***	-7.7***	-9.2***	-0.0^	-7.6***	-8.5***	-9.2***
	(0.0)	(0.5)	(0.5)	(0.6)	(0.0)	(0.7)	(0.7)	(0.8)
Unexplained	-24.5***	-18.0***	-16.9***	-15.5***	-15.8***	-8.2***	-7.4***	-6.7***
	(1.0)	(1.0)	(1.0)	(1.0)	(0.9)	(1.2)	(1.2)	(1.1)
		N=(16,770)				N=(15,968)		
FDIC ASEC								
Difference	-27.3***	-27.4***	-27.4***	-	-18.9***	-19.0***	-19.0***	-
	(1.9)	(1.9)	(1.9)		(2.0)	(1.9)	(2.0)	
Explained	-0.4**	-8.6***	-7.9***	-	0.1	-10.2***	-11.9***	-
	(0.2)	(0.8)	(1.0)		(0.2)	(1.2)	(1.6)	
Unexplained	-26.9***	-18.8***	-19.5***	-	-19.0***	-8.9***	-7.1***	-
	(1.9)	(2.1)	(2.2)		(2.0)	(2.1)	(2.3)	
		N=(3,719)				N=(3,522)		
Demographic Controls	-	X	X	X	-	X	X	X
Geographic Controls and Citizenship	-	-	X	X	-	-	X	X
Assets	-	-	-	X	-	-	-	X

* p<0.1, ** p<0.05, *** p<0.01. ^ signifies that this estimate rounds to zero but is statistically different from zero at the 95% level. Note: In percent. Household level estimates. Estimates weighted by inverse probability replicate weights, with robust standard errors. Results from Probit Model. Pooled Decomposition. Source: Survey of Consumer Finances Public Use Files, 2013-2019; Survey of Income and Program Participation Public Use Files 2014-2020; Current Population Survey Public Use Files 2013-2019.

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[31] Estimated Black/White differentials for SIPP and FDIC ASEC are not statistically different. Estimated Hispanic/White Differentials between SCF and SIPP and SIPP FDIC ASEC are not statistically different.

We perform two additional analyses as robustness checks. First, following Jones and Kelley (1984), we run a threefold decomposition which includes an interaction effect between explained and unexplained components. As can be seen in Appendix Table A8, these results present similar conclusions to the twofold decompositions. The explained component accounts for a slightly larger portion of the overall difference compared to the twofold decompositions, while the positive interaction effect moderates the larger estimate magnitudes. Then, we swap reference groups in the decomposition to ensure our results are robust to any selection group effects. The results of these decompositions are nearly identical to what is presented in the paper.

4.4 Reasons for being Unbanked

The returns to characteristics component of the difference can be thought of in this setting as the underlying features which increase the barriers to entry for obtaining a bank account. Examining self-reported reasons for being unbanked from the linked FDIC ASEC sample can help explain what some of these features are. The supplement asks unbanked households the primary and secondary reasons for being unbanked.[32] These include bank branches having inconvenient hours or locations, high or confusing bank fees,[33] not having enough money to meet account minimums, not trusting banks, identification, or credit/past banking issues in obtaining an account, privacy issues, or some other reason. Overall, 10.5% of households without a bank account choose not to answer this question and the supplement does not impute these responses prior to the 2019 supplement. We assume these non-responses are missing at random and scale other response categories accordingly.[34]

Table 5 shows that money, either through not having enough to meet a minimum balance or through concern of high fees charged by banks, are two of the three most cited reasons for not having either a checking or savings account. Conditional on being unbanked for those responding to the question, 42.4% of households reported money as the primary reason for not holding an account. The barrier of entry is higher for Black households, as nearly half of those who were unbanked (48.9%) reported that money was the primary reason for not holding a bank account. This is higher than the share of unbanked White (37.5%) and Hispanic (40.9%) households who reported money as their primary reason for not holding an account.[35]

While unbanked Black households are more likely to report difficulties meeting minimum balance requirements than unbanked White and Hispanic households, it is also important to note that there is a larger share of the population of Black and Hispanic households that is unbanked than White households. To account for this, Table 5 also displays the primary reason for being unbanked as a population share for each race group. Unconditional on banking status, Black households were over 7 times more likely than

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[32] Results for reasons unbanked in the SCF can be found in Table A7. The SCF differs from the CPS-FDIC by asking why the respondent does not have a checking account, while CPS FDIC differentiates between a banking or checking account. The most cited response is that people do not like to deal with banks, followed by not writing enough checks to make it worthwhile, service fees being too high, and not having enough money.

[33] The response of high or confusing fees was combined in the 2013 FDIC Banking Supplement while separate in later years.

[34] Those that did not respond were more likely to be Hispanic and less likely to be White than those that responded to the question.

[35] The difference between Whites and Hispanics who responded to money being the primary reason for not holding an account was not statistically different.

White households to be unbanked due to not having enough money to meet minimum balance requirements with 7.6% of all Black households being unbanked due to minimum balance requirements compared to 1.0% of White households. Hispanic households were over 5 times more likely to be unbanked due to minimum balance requirements than White households, with 5.5% of all Hispanic households being unbanked due to minimum balance requirements. The results suggests that minimum balance requirements disproportionately reduce bank account ownership for Blacks and Hispanics relative to Whites.[36]

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[36] Unlike other reasons for being unbanked in Table 5, differences based on not having sufficient funds to open an account are likely partially accounted for in our Kitagawa-Oaxaca-Blinder decompositions through controlling for household assets.

Table 5: Reasons for Not Having a Bank Account by Ownership Status, Race and Hispanic Origin

	Share of Unbanked				Share of Population			
	All	White	Black	Hispanic	All	White	Black	Hispanic
Don't have enough money to meet minimum balance re-quirements	42.4	37.5	48.9	40.9	2.4	1.0	7.6	5.5
	(1.2)	(2.2)	(1.9)	(2.0)	(0.1)	(0.1)	(0.4)	(0.3)
Don't trust banks	16.2	17.2	13.6	17.0	0.9	0.4	2.1	2.3
	(0.8)	(1.8)	(1.4)	(1.7)	(0.1)	(0.1)	(0.2)	(0.3)
Bank account fees are too high	10.6	9.1	11.1	11.5	0.6	0.2	1.7	1.6
	(0.7)	(1.2)	(1.1)	(1.2)	(0.0)	(0.0)	(0.2)	(0.2)
Cannot open an account due to personal identification, credit, or former bank account problems	7.2	6.1	4.9	11.3	0.4	0.2	0.8	1.5
	(0.6)	(1.0)	(0.8)	(1.2)	(0.0)	(0.0)	(0.1)	(0.2)
Avoiding a bank gives more privacy	4.4	5.5	4.4	3.8	0.3	0.1	0.7	0.5
	(0.4)	(0.9)	(0.8)	(0.7)	(0.0)	(0.0)	(0.1)	(0.1)
Bank hours and locations are inconvenient	4.5	4.4	4.8	3.6	0.3	0.1	0.8	0.5
	(0.5)	(0.8)	(0.8)	(0.7)	(0.0)	(0.0)	(0.1)	(0.1)
Banks do not offer products and services you need	2.1	2.8	1.4	2.0	0.1	0.1	0.2	0.3
	(0.3)	(0.8)	(0.4)	(0.6)	(0.0)	(0.0)	(0.1)	(0.1)
Bank account fees are too unpredictable	1.2	0.9	1.3	1.6	0.1	0.0	0.2	0.2
	(0.3)	(0.4)	(0.5)	(0.5)	(0.0)	(0.0)	(0.1)	(0.1)
Other	11.5	16.5	9.6	8.3	0.7	0.4	1.5	1.1
	(0.7)	(1.6)	(1.1)	(1.0)	(0.0)	(0.0)	(0.2)	(0.1)
Observations	2,672	803	881	806	46,522	30,216	6,061	6,307

In percent. Source: U.S. Census Bureau Current Population Survey 2013-2019 Public Use Files, author's linked supplements. Including consistent categories across time series. Sample includes those who report no bank account and respond to the question asking for the main reason for not having a bank account. Standard errors generated using survey specific replicate weights.

The next most cited reason for households being unbanked was a lack of trust in banks with 16.2% of the unbanked households and 0.9% of all households reporting not having a bank account for this reason. Among race and Hispanic origin groups, 13.6% to 17.2% of households reported not trusting banks as the primary reason they were unbanked, which were not statistically different. As a total share of households, over 2% of Black (2.1%) and Hispanic (2.3%) households reported being unbanked due to trust issues with banks, which was around 5 times higher than the share of White households who were unbanked for this reason (0.4%).[37]

High bank account fees were the third most cited reason for households being unbanked with 10.6% of the unbanked households and 0.6% of all households reporting this as the primary reason they were unbanked. Among race and Hispanic origin groups, this represented 9.1% to 11.5% of primary reasons, which were not statistically different. Across all households, 1.7% of Black and 1.6% of Hispanic households reported being unbanked due to high account fees, which was higher than the 0.2% of White households that reported being unbanked for high fees.[38]

Personal identification, credit issues, and former bank account problems were the fourth most cited reason with 7.2% of unbanked households and 0.4% of all households reporting being unbanked for this reason. Unbanked Hispanic households were almost twice as likely to cite personal identification, credit issues, and former bank account problems (11.3%) relative to unbanked White households (6.1%) and nearly three times higher than unbanked Black households (4.9%).[39] As a share of all households, 1.5% of Hispanic households cited personal identification, credit issues, and former bank account problems as the reason for being unbanked, which was larger than the share of White (0.2%) and Black (0.8%) households reporting this. Some of this difference might be explained by language barriers, especially among older Hispanic cohorts (Blanco et al. 2019).

The remaining 23.7% of unbanked households who gave a reason for being unbanked is distributed amongst several different categories, such as bank location issues (4.5%), privacy (4.4%), incorrect services being provided by the bank (2.1%) and other reasons (11.5%). These estimates are consistent with the existing literature which has found that lack of money and high fees and charges are commonly cited reasons for not having a bank account (Hogarth, Anguelov and Lee 2003; Washington 2006; Rhine, Greene and Toussaint-Comeau 2006), as well as differences by immigration status (Rhine and Greene 2006), and access to bank branches in Black communities (Caskey 1994).

We also consider how primary reasons for being unbanked varied when limited to households in poverty. As seen in Table 6, a lack of money is slightly more commonly cited as the reason for being unbanked (48.9% vs. 42.4%). Conditional on being unbanked and in poverty, Black households were still more likely to report being unbanked due to money issues (54.6%) than White (47.5%) and Hispanic households (45.0%).[40] For those in poverty, 21.2% of Black households were unbanked due to minimum balance requirements, which was around 2.5 times the rate reported by White households in poverty (7.4%) and

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[37] The rates for Blacks and Hispanics are not statistically different to each other.
[38] The rates for Blacks and Hispanics are not statistically different to each other.
[39] The rates for Whites and Blacks are not statistically different to each other.
[40] The rates for Whites and Hispanics are not statistically different to each other.

around 1.5 times the rate reported by Hispanic households in poverty (13.4%). The results suggest that, even among the poor, minimum balance requirements disproportionately reduce bank account owner-ship for Blacks and Hispanics relative to Whites.

Similar to the results for the entire unbanked population, trust (13.8%) and bank account fees (10.5%) were the second and third most cited reasons among households in poverty as the primary reason they were unbanked, respectively. For unbanked Hispanic households in poverty, personal identification, credit issues, and former bank account problems remained a more common reason for being unbanked (8.9%) relative to Black households (4.7%), although not statistically different from White households (5.8%).[41] As was the case for all unbanked households, other reasons for being unbanked were less cited among those in poverty.

These results provide insight into some of the barriers that unbanked households face when considering applying for a checking or savings account. In the case of money, the interaction between banks setting too high minimum balance requirements and low resources is the primary barrier that prevents house-holds from obtaining a bank account. Estimates from Tables 5 and 6 provide additional evidence that these barriers had disproportionally high impacts for Blacks and Hispanics than for Whites. Issues with banks due to personal identification, credit issues, and former bank account problems is one of the higher barriers to entry for Hispanics, suggesting that different regulations, bank policies, or language barriers may be restricting the ability of Hispanics to obtain bank accounts. With these factors in mind, closing the Black-White and Hispanic-White gap in unbanked rates may prove more challenging than building new access points through branches or technology.

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[41] The rates for Whites and Blacks are not statistically different to each other.

Table 6: Reasons for Not Having Bank Account by Ownership Status, Race and Hispanic Origin In Poverty

	Share of Unbanked (In Poverty)				Share of Population (In Poverty)			
	All	**White**	**Black**	**Hispanic**	**All**	**White**	**Black**	**Hispanic**
Don't have enough money to meet minimum balance requirements	48.9	47.5	54.6	45.0	12.0	7.4	21.2	13.4
	(1.7)	(3.1)	(2.6)	(3.0)	(0.5)	(0.7)	(1.3)	(1.2)
Don't trust banks	13.8	13.5	11.7	13.7	3.4	2.1	4.5	4.1
	(1.1)	(2.2)	(1.6)	(2.1)	(0.3)	(0.4)	(0.6)	(0.7)
Bank account fees are too high	10.5	9.2	11.6	10.7	2.6	1.4	4.5	3.2
	(1.0)	(1.8)	(1.5)	(1.7)	(0.2)	(0.3)	(0.6)	(0.5)
Cannot open an account due to personal identification, credit, or former bank account problems	6.2	5.8	4.7	8.9	1.5	0.9	1.8	2.6
	(0.7)	(1.4)	(1.1)	(1.6)	(0.2)	(0.2)	(0.4)	(0.5)
Avoiding a bank gives more privacy	4.0	5.5	3.8	3.2	1.0	0.9	1.5	0.9
	(0.6)	(1.4)	(1.0)	(1.0)	(0.2)	(0.2)	(0.4)	(0.3)
Bank hours and locations are inconvenient	3.9	2.9	4.5	3.8	1.0	0.5	1.7	1.1
	(0.5)	(0.9)	(1.0)	(1.3)	(0.1)	(0.1)	(0.4)	(0.4)
Banks do not offer products and services you need	1.6	1.1	1.4	2.0	0.4	0.2	0.5	0.6
	(0.4)	(0.6)	(0.6)	(0.8)	(0.1)	(0.1)	(0.2)	(0.3)
Bank account fees are too unpredictable	1.3	0.0	1.1	3.1	0.3	0.0	0.4	0.9
	(0.4)	(0.0)	(0.6)	(1.1)	(0.1)	(0.0)	(0.2)	(0.3)
Other	10.0	14.4	6.6	9.7	2.4	2.2	2.5	2.9
	(1.0)	(2.3)	(1.3)	(1.6)	(0.2)	(0.4)	(0.5)	(0.5)
Observations	1,346	398	494	353	5,405	2,345	1,374	1,177

In percent. Source: U.S. Census Bureau Current Population Survey 2013-2019 public use files, author's linked supplements. Including consistent categories across time series. Sample includes those who report no bank account and respond to the question asking for the main reason for not having a bank account. Standard errors generated using survey specific replicate weights.

5. Conclusion

This paper documents how unbanked rates have evolved over time using three leading household surveys. We present a historical series of unbanked rates in the United States since the 1980s, showing that unbanked rates have declined from 14.1% in the 1980s to 5.3% in 2019. The declines are present for all categories examined, including households in poverty, Blacks, and Hispanics. For households in poverty, unbanked rates were halved from 49.6% on average in the 1980s to 22.8% on average in 2019. For Black and Hispanic households in poverty in the 1980s, unbanked rates were even higher, as 73.6% and 66.5% of the respective populations were unbanked. These rates had declined to 36.2% and 30.2% by 2019, respectively.

While bank account access has increased over time, inequalities in access have remained. Unbanked rates for households in poverty, which captures a higher share of the unbanked population than income measures used in past research, have remained over 7 times larger than for those not in poverty. Meanwhile unbanked rates for Black and Hispanic households are nearly 4 to 5 times higher than those for White households. Examining unbanked and poverty interactions since 2013, we show that on average 48.5% of the unbanked were in poverty across the series, nearly twice as large as the share of those in poverty who are unbanked (27.3%), suggesting that the unbanked population is particularly economically deprived. Descriptive statistics support this conclusion, as households with lower levels of education and who report poorer health are more likely to be living in an unbanked household.

Decomposing differences in unbanked rates, we show that raw differences in endowments explain less than half of the difference in unbanked rates between Black and White households, and approximately half for Hispanic households. The returns to endowments accounted for a large portion of the differences in banking rates. Paired with the cited reasons why households are unbanked, we find suggestive evidence that not having enough money for minimum balances, fees, and distrust of banks are predominant features that reduce bank account ownership amongst the studied groups. Indeed, our findings suggest that around 7.6% of all Black and 5.5% of all Hispanic households are unbanked due to minimum balance requirements compared to 1.0% of Whites. This suggests that minimum balance requirements have a large and disproportionate impact on these households, which is consistent with our decomposition results showing these groups have significantly more limited access to banking.

Our results identify additional pathways for future research. First, research into the consequences of reducing or removing minimum balance requirements, a key driver for why households are unbanked, would be useful to determine the effects of potential regulations which remove these. Second, the COVID-19 pandemic renewed interest in bank account ownership since those without bank accounts experienced delays in receiving Economic Impact Payments.[42] Examining the impact of direct deposit in reducing financial burden would be a useful extension of our results.

In sum, our results contribute to the literature by showing the historical nature of inequalities in bank access across the economic and demographic spectrum. We show that while more households in the United States hold bank accounts than ever before, there are significant inequalities by race, Hispanic origin, and poverty status that have persisted over time. Furthermore, our estimates demonstrate that

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[42] Delays in mailing for the first Economic Impact Payments were 8 to 12 weeks (House Committee on Ways and Means 2020). Delays were reduced to 3 to 4 weeks by the January 2021 distribution (Internal Revenue Service 2021).

much of the difference in unbanked rates between Whites, Blacks and Hispanics is due to barriers to entry, such as minimum balance fees and a lack of trust. Advancements in technology and other market changes moving forward can improve these statistics, reducing inequality, and improving well-being.

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A. Data Appendix

A1. Current Population Survey

The Current Population Survey (CPS) is the primary source of monthly labor force data in the United States. The monthly sample of the CPS is approximately 60,000 households. Supplements are added to the basic CPS questionnaire in select months by federal sponsors to gather specific information to support programs and gain a better knowledge of households. As noted in the text, we link two of these supplements, the Annual Social and Economic Supplement (CPS ASEC) and the June supplement (FDIC CPS) to obtain CPS data on income, poverty, and household banking status.

The CPS ASEC is administered annually in February, March, and April to a sample of approximately 98,000 households including households in the basic monthly CPS and an oversample. The CPS ASEC is the official source of detailed income and official poverty statistics in the United States. The bulk of the sample comes from March, however oversampling of Children's Health Insurance Program (CHIP) and Hispanic households is conducted to improve measurement for Hispanic households and non-Hispanic households with children. Households who enter the CPS sample in April with children aged 18 and under or who are non-White are also eligible for the CPS ASEC as part of the Hispanic oversample, while households in February are contacted an additional month if they have children aged 18 and under or who are non-White and their last month in sample was August, September or October of the previous year as part of the CHIP oversample (U.S. Census Bureau 2019). Since poverty (and by extension, income) is of interest in the study, we use the reported demographics and income information in March as the collection period and set our poverty thresholds based on household compositions accordingly.

The FDIC Supplement to the CPS questionnaire was first administered in January 2009 and has since been conducted in odd numbered years in June to households where the respondent responded that they "at least somewhat participate in household financial decisions" and respond "Yes" or "No" to whether they have a bank account. Approximately 90% of individuals who complete the basic labor force questions appear in the CPS FDIC supplement from 2009 to 2011, with response rates falling to approximately 70% in the 2019 data. The 2019 supplement was the first in the CPS FDIC series which used hot-deck imputation for item non-response. Imputed values are allocated when a respondent refuses to answer a question, leaves the supplement in progress, or provides a response of don't know. Since the question on bank account ownership is linked to the supplement entry question, there are no allocated responses for this variable. Between 6.0% and 9.0% of responses to the main reason for being unbanked are allocated.

The survey structure of the CPS is such that a household address is eligible to participate in the survey for four months, excluded for the next eight months, and then can reenter the sample for an additional four months, creating a longitudinal component to the survey. Respondents are given unique identifiers to allow for linking across the 16-month span. Respondents whose household first entered the CPS sample in March or April and participated in the CPS ASEC were eligible to participate in the CPS FDIC supplement in odd years during their month in sample (MIS) 3, 4 or 7, 8 observations. We use supplements which are conducted during the same calendar year.

Respondent identifiers, sex, and race are used to link the CPS ASEC to the June CPS/FDIC Supplement. Matches are validated by checking whether the age difference between surveys is less than or equal to two years (in absolute terms) which is similar to a procedure suggested by Madrian and Lefgren (2000). Households where banking status is determined by a new household member in June are removed from the sample, and new entrants or leavers are not considered in the construction of the poverty thresholds.

The procedure leaves us with a sample of 88,446 respondents across the six survey years from 2009 to 2019.

The sample is then reweighted using inverse probability weighting (IPW) based upon probit regressions of the link variable on a rich set of demographic and regional controls. To improve the match, we separate the sample for the regression into two age categories: age 15 to 64, and age 65 and older. Our set of controls include the previously mentioned controls and detailed years of education indicators, marital status, indicators for work occupation and weeks worked (federal, private, postal, local, and state government).[43] The sample is reweighted to the CPS ASEC supplement.

To check the validity of the re-weighting method, we compare official poverty rates and unbanked rates as constructed in the respective CPS supplement to our reweighted linked sample. Table A1 shows that there are no statistically different results between the original supplement results and the linked sample.[44]

Table A1: Poverty and Banking Statistics in Both Samples

	Survey Estimates	Reweighted Linked Sample	Difference
Household OPM			
2009	13.2	13.0	0.2
	(0.16)	(0.27)	(0.31)
2011	15.1	15.1	0.0
	(0.18)	(0.39)	(0.43)
2013	15.0	14.8	0.2
	(0.18)	(0.43)	(0.46)
2015	14.8	14.3	0.5
	(0.17)	(0.40)	(0.43)
2017	12.7	12.6	0.1
	(0.14)	(0.40)	(0.42)
2019	11.8	11.7	0.1
	(0.15)	(0.40)	(0.42)
Unbanked Rate			
2009	7.7	7.4	0.2
	(0.16)	(0.2)	(0.25)
2011	8.2	8.2	0.1
	(0.17)	(0.26)	(0.31)
2013	7.8	8.0	-0.2
	(0.17)	(0.33)	(0.37)
2015	7.1	7.0	0.1
	(0.18)	(0.27)	(0.33)
2017	6.6	6.4	0.2
	(0.17)	(0.30)	(0.34)
2019	5.4	5.7	-0.3
	(0.15)	(0.27)	(0.31)

* p<0.1, ** p<0.05, *** p<0.01. Standard errors in parentheses. Note: In percent. Household OPM panel looks at all individuals. Unbanked rate is householders only. Source: Current Population Survey Public Use Files, 2009-2019.

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[43] Those without a job that have never worked are included in the baseline group for the industry and occupation indicators.

[44] Tables are available on request which examine the same rates by Black and Hispanic respondents. The only instance of a statistically different result is for the Hispanic poverty rate in 2017, where the linked sample has a higher poverty rate than the CPS ASEC.

A2. SIPP Monthly vs. Annual Poverty

Given that SIPP captures income monthly, it is often possible to determine both monthly and annual poverty status for most respondents. For calculating poverty status, SIPP provides monthly poverty thresholds on all core files. These monthly thresholds are based on the same thresholds used by the Census Bureau for annual poverty calculations, while being adjusted to account for monthly variations in CPI-U. Annual poverty status in SIPP is determined by aggregating the 12 monthly poverty thresholds across a calendar year.

Prior to the 2014 Panel, SIPP interviews were conducted every 4 months and respondents needed to participate in 3-4 consecutive interviews to calculate an annual poverty value.[45] Given this, some respondents where banking status is known would not have an annual poverty value due to interview timing or attrition. Therefore, we use monthly household poverty status as our poverty measure for SIPP. The measure has an advantage over the annual poverty measure in that it is timelier, often corresponding to the reference month where banking status is determined and does not reduce our sample size as an annual poverty measure would.

To examine how the timing of using monthly poverty status affects our analysis, we take advantage of the 2014 and subsequent SIPP panels where interviews moved from a four-month to twelve-month reference period for the preceding calendar year meaning that respondents are more likely to have an annual poverty value. Using the 2014-2020 SIPP, Appendix Table A2 shows banking rates based on both monthly and annual poverty status. As displayed in the table, unbanked rates are largely similar using both measures.[46] The similarities suggest that the monthly measure produces similar results to using an annual measure, while potentially being timelier.

Table A2: SIPP Unbanked Rates, Monthly and Annual Poverty Status

	SIPP Monthly Poverty				SIPP Annual Poverty			
	All	**White**	**Black**	**Hispanic**	**All**	**White**	**Black**	**Hispanic**
2013	32.9	24.6	48.7	41.1	33.3	24.6	49.2	41.6
2014	32.3	24.2	47.9	41.8	32.1	24.2	48.1	38.7
2015	32.3	23.3	51.1	40.5	33.5	24.4	52.0	41.8
2016	27.7	20.0	44.6	37.7	28.8	20.7	44.4	38.2
2017	25.4	17.3	42.0	33.6	26.2	17.9	42.1	34.3
2018	24.1	14.9	44.8	28.5	26.0	16.7	47.5	29.3
2019	20.3	13.7	31.7	27.1	21.6	15.5	31.1	28.5

Note: in percent. White refers to White, non-Hispanic. Black refers to Black, non-Hispanic. Source: Survey of Income and Program Participation Public Use Files, 2014-2020.

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[45] While three consecutive SIPP interviews would have provided 12 months of observations (prior to the 2014 Panel) need a fourth interview since their first reference month was often not January.

[46] Overall, the correlation between being in annual and monthly poverty in December over the 2013-2019 period was 0.85.

A3. Additional Tables

Table A3: Unbanked Rates by Survey

	SCF				SIPP				FDIC ASEC				Three Survey Average			
	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
1983	12.6	7.6	37.2	38.7	-	-	-	-	-	-	-	-	12.6	7.6	37.2	38.7
1984	-	-	-	-	16.5	11.6	45.6	35.5	-	-	-	-	16.5	11.6	45.6	35.5
1985	-	-	-	-	15.6	10.3	44.1	38.2	-	-	-	-	15.6	10.3	44.1	38.2
1986	10.8	5.3	38.1	35.8	15.2	10.5	43.0	33.3	-	-	-	-	13.0	7.9	40.6	34.6
1987	-	-	-	-	15.7	10.2	46.1	35.7	-	-	-	-	15.7	10.2	46.1	35.7
1988	-	-	-	-	15.1	9.7	43.4	36.8	-	-	-	-	15.1	9.7	43.4	36.8
1989	14.4	7.4	43.3	36.5	15.1	9.8	41.6	36.5	-	-	-	-	14.7	8.6	42.4	36.5
1991	-	-	-	-	15.1	10.1	41.7	35.6	-	-	-	-	15.1	10.1	41.7	35.6
1992	13.1	6.8	31.4	44.2	15.9	10.6	42.7	37.2	-	-	-	-	14.5	8.7	37.0	40.7
1993	-	-	-	-	15.6	10.1	41.6	37.4	-	-	-	-	15.6	10.1	41.6	37.4
1994	-	-	-	-	16.4	10.9	42.3	37.4	-	-	-	-	16.4	10.9	42.3	37.4
1995	12.6	7.2	37.8	30.3	16.3	11.1	39.7	34.6	-	-	-	-	14.4	9.1	38.8	32.4
1996	-	-	-	-	18.3	12.5	42.2	38.7	-	-	-	-	18.3	12.5	42.2	38.7
1997	-	-	-	-	19.6	13.6	44.4	40.1	-	-	-	-	19.6	13.6	44.4	40.1
1998	9.4	5.1	26.5	25.7	19.8	14.4	41.7	38.5	-	-	-	-	14.6	9.7	34.1	32.1
1999	-	-	-	-	20.1	14.6	42.3	38.4	-	-	-	-	20.1	14.6	42.3	38.4
2000	-	-	-	-	20.2	14.9	40.9	38.1	-	-	-	-	20.2	14.9	40.9	38.1
2001	8.6	4.8	18.4	27.8	20.6	15.2	41.5	39.1	-	-	-	-	14.6	10.0	29.9	33.4
2002	-	-	-	-	22.0	16.4	42.6	40.2	-	-	-	-	22.0	16.4	42.6	40.2
2003	-	-	-	-	22.7	17.2	43.4	39.4	-	-	-	-	22.7	17.2	43.4	39.4
2004	8.7	4.6	21.4	24.2	19.3	13.7	37.3	37.2	-	-	-	-	14.0	9.2	29.3	30.7
2005	-	-	-	-	18.9	13.5	36.9	35.7	-	-	-	-	18.9	13.5	36.9	35.7
2007	7.9	4.6	19.0	20.9	-	-	-	-	-	-	-	-	7.9	4.6	19.0	20.9
2009	-	-	-	-	19.4	14.1	36.0	34.6	7.5	3.4	21.3	18.9	13.4	8.8	28.6	26.8
2010	7.5	3.9	19.1	16.8	21.0	15.8	38.1	35.5	-	-	-	-	14.2	9.9	28.6	26.1
2011	-	-	-	-	20.5	15.8	37.1	33.0	8.1	3.6	22.4	20.1	14.3	9.7	29.8	26.5
2013	6.8	3.6	16.8	14.6	11.3	7.4	24.1	20.4	8.0	3.8	19.8	19.7	8.7	4.9	20.2	18.2
2014	-	-	-	-	10.6	7.0	23.1	18.1	-	-	-	-	10.6	7.0	23.1	18.1
2015	-	-	-	-	9.5	5.8	21.1	17.1	7.0	2.9	18.9	17.1	8.2	4.4	20.0	17.1
2016	6.7	3.4	16.0	13.9	8.5	5.3	19.4	15.6	-	-	-	-	7.6	4.3	17.7	14.8
2017	-	-	-	-	6.7	3.6	16.2	13.5	6.4	3.0	17.5	13.8	6.5	3.3	16.8	13.6
2018	-	-	-	-	6.0	3.2	16.0	10.5	-	-	-	-	6.0	3.2	16.0	10.5
2019	5.5	3.0	13.2	10.5	4.8	2.5	12.1	9.7	5.6	2.3	15.3	13.6	5.3	2.6	13.6	11.3

Note: in percent. Years with no data omitted for brevity. Source: Survey of Consumer finances, 1983-2019; Survey of Income and Program Participation, 1984-2020; Current Population Survey Supplements, 2009-2019

Table A4: Unbanked Rates by Survey, in Poverty

	SCF				SIPP				FDIC ASEC				Three Survey Average			
	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
1983	47.4	33.6	69.6	69.3	-	-	-	-	-	-	-	-	47.4	33.6	69.6	69.3
1984	-	-	-	-	54.9	44.3	76.1	72.4	-	-	-	-	54.9	44.3	76.1	72.4
1985	-	-	-	-	52.2	39.2	77.2	78.5	-	-	-	-	52.2	39.2	77.2	78.5
1986	39.8	20.7	63.2	62.0	55.9	44.4	76.3	76.5	-	-	-	-	47.8	32.5	69.7	69.3
1987	-	-	-	-	55.0	40.2	80.9	76.8	-	-	-	-	55.0	40.2	80.9	76.8
1988	-	-	-	-	52.9	38.8	76.3	74.2	-	-	-	-	52.9	38.8	76.3	74.2
1989	49.3	30.9	75.1	53.8	54.0	39.4	80.6	71.9	-	-	-	-	51.7	35.1	77.8	62.8
1991	-	-	-	-	51.5	36.9	78.1	70.4	-	-	-	-	51.5	36.9	78.1	70.4
1992	46.3	30.7	54.2	74.3	53.3	40.9	76.4	70.2	-	-	-	-	49.8	35.8	65.3	72.3
1993	-	-	-	-	51.4	37.9	73.3	72.0	-	-	-	-	51.4	37.9	73.3	72.0
1994	-	-	-	-	52.9	38.4	77.3	70.5	-	-	-	-	52.9	38.4	77.3	70.5
1995	43.3	29.9	64.9	58.1	52.3	38.6	76.7	65.2	-	-	-	-	47.8	34.2	70.8	61.6
1996	-	-	-	-	50.9	37.4	71.8	71.5	-	-	-	-	50.9	37.4	71.8	71.5
1997	-	-	-	-	53.5	39.9	75.5	71.9	-	-	-	-	53.5	39.9	75.5	71.9
1998	36.3	24.3	55.1	50.3	53.0	40.3	72.6	71.3	-	-	-	-	44.6	32.3	63.8	60.8
1999	-	-	-	-	52.7	39.7	75.3	69.4	-	-	-	-	52.7	39.7	75.3	69.4
2000	-	-	-	-	52.5	42.3	68.1	68.8	-	-	-	-	52.5	42.3	68.1	68.8
2001	35.9	26.0	43.6	56.6	49.6	38.2	70.3	63.3	-	-	-	-	42.7	32.1	57.0	60.0
2002	-	-	-	-	52.7	40.8	71.9	68.8	-	-	-	-	52.7	40.8	71.9	68.8
2003	-	-	-	-	52.5	41.8	71.9	65.1	-	-	-	-	52.5	41.8	71.9	65.1
2004	30.7	20.5	43.9	47.2	49.9	37.8	69.1	65.0	-	-	-	-	40.3	29.1	56.5	56.1
2005	-	-	-	-	48.4	36.2	67.0	65.4	-	-	-	-	48.4	36.2	67.0	65.4
2007	32.2	21.1	46.7	51.0	-	-	-	-	-	-	-	-	32.2	21.1	46.7	51.0
2009	-	-	-	-	46.7	36.7	63.1	59.1	29.3	18.1	45.8	38.5	38.0	27.4	54.4	48.8
2010	28.8	16.8	47.0	42.0	49.2	39.4	65.4	61.5	-	-	-	-	39.0	28.1	56.2	51.8
2011	-	-	-	-	46.7	38.6	63.2	54.9	32.4	20.6	47.4	46.3	39.6	29.6	55.3	50.6
2013	25.6	19.5	34.3	29.9	32.9	24.6	48.7	41.1	31.8	20.7	46.3	40.9	30.1	21.6	43.1	37.3
2014	-	-	-	-	32.3	24.2	47.9	41.8	-	-	-	-	32.3	24.2	47.9	41.8
2015	-	-	-	-	32.3	23.3	51.1	40.5	29.0	16.3	47.0	38.9	30.6	19.8	49.1	39.7
2016	27.7	19.2	43.1	32.0	27.7	20.0	44.6	37.7	-	-	-	-	27.7	19.6	43.8	34.9
2017	-	-	-	-	25.4	17.3	42.0	33.6	27.0	16.9	42.3	33.9	26.2	17.1	42.2	33.7
2018	-	-	-	-	24.1	14.9	44.8	28.5	-	-	-	-	24.1	14.9	44.8	28.5
2019	23.0	14.4	35.1	33.4	20.3	13.7	31.7	27.1	25.2	14.5	41.8	30.1	22.8	14.2	36.2	30.2

Note: in percent. Years with no data omitted for brevity. Source: Survey of Consumer finances, 1983-2019; Survey of Income and Program Participation, 1984-2020; Current Population Survey Supplements, 2009-2019.

Table A5: Unbanked Rates by Survey, not in Poverty

	SCF				SIPP				FDIC ASEC				Three-Survey Average			
	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
1983	6.6	4.3	21.2	24.2	-	-	-	-	-	-	-	-	6.6	4.3	21.2	24.2
1984	-	-	-	-	10.5	7.8	31.0	24.2	-	-	-	-	10.5	7.8	31.0	24.2
1985	-	-	-	-	10.2	7.1	31.0	25.8	-	-	-	-	10.2	7.1	31.0	25.8
1986	6.1	3.6	22.1	29.5	9.3	6.8	27.8	20.8	-	-	-	-	7.7	5.2	25.0	25.2
1987	-	-	-	-	9.7	6.9	29.7	22.8	-	-	-	-	9.7	6.9	29.7	22.8
1988	-	-	-	-	9.9	6.8	30.1	25.8	-	-	-	-	9.9	6.8	30.1	25.8
1989	7.5	4.9	21.5	23.7	9.8	6.9	26.9	26.3	-	-	-	-	8.7	5.9	24.2	25.0
1991	-	-	-	-	9.8	7.3	26.0	24.2	-	-	-	-	9.8	7.3	26.0	24.2
1992	6.7	4.1	19.3	22.5	10.3	7.4	29.0	25.4	-	-	-	-	8.5	5.7	24.2	23.9
1993	-	-	-	-	10.0	7.1	28.0	24.2	-	-	-	-	10.0	7.1	28.0	24.2
1994	-	-	-	-	10.7	7.9	27.6	24.6	-	-	-	-	10.7	7.9	27.6	24.6
1995	6.2	4.0	20.1	16.9	10.8	8.2	25.4	24.0	-	-	-	-	8.5	6.1	22.7	20.4
1996	-	-	-	-	12.9	9.6	30.6	26.7	-	-	-	-	12.9	9.6	30.6	26.7
1997	-	-	-	-	14.3	10.7	33.0	29.0	-	-	-	-	14.3	10.7	33.0	29.0
1998	4.4	2.8	11.1	15.3	14.9	11.6	31.5	27.6	-	-	-	-	9.7	7.2	21.3	21.5
1999	-	-	-	-	15.4	11.9	31.9	29.1	-	-	-	-	15.4	11.9	31.9	29.1
2000	-	-	-	-	15.9	12.3	33.1	29.2	-	-	-	-	15.9	12.3	33.1	29.2
2001	4.6	2.9	9.6	15.9	16.2	12.6	31.3	32.6	-	-	-	-	10.4	7.8	20.5	24.3
2002	-	-	-	-	17.3	13.7	32.1	32.3	-	-	-	-	17.3	13.7	32.1	32.3
2003	-	-	-	-	18.3	14.5	34.3	33.1	-	-	-	-	18.3	14.5	34.3	33.1
2004	5.2	2.9	13.9	15.1	15.0	11.3	27.9	29.8	-	-	-	-	10.1	7.1	20.9	22.4
2005	-	-	-	-	14.7	11.1	27.9	28.2	-	-	-	-	14.7	11.1	27.9	28.2
2007	4.5	2.9	10.5	12.1	-	-	-	-	-	-	-	-	4.5	2.9	10.5	12.1
2009	-	-	-	-	14.8	11.3	27.1	26.8	4.7	2.2	13.7	14.1	9.7	6.8	20.4	20.5
2010	4.3	2.5	11.4	9.2	16.2	12.9	29.3	27.8	-	-	-	-	10.3	7.7	20.3	18.5
2011	-	-	-	-	15.9	12.9	28.2	26.2	4.5	1.9	13.9	12.6	10.2	7.4	21.1	19.4
2013	3.9	2.0	10.9	9.8	7.5	5.2	16.3	14.3	4.4	2.2	10.8	13.3	5.3	3.1	12.7	12.5
2014	-	-	-	-	7.0	4.9	15.6	11.6	-	-	-	-	7.0	4.9	15.6	11.6
2015	-	-	-	-	6.0	3.7	13.3	11.6	3.8	1.6	10.4	11.5	4.9	2.6	11.9	11.6
2016	3.7	1.9	9.3	9.0	5.6	3.6	13.1	10.8	-	-	-	-	4.7	2.7	11.2	9.9
2017	-	-	-	-	3.8	2.0	9.0	8.9	3.8	1.9	10.6	8.9	3.8	1.9	9.8	8.9
2018	-	-	-	-	3.4	2.0	8.3	6.5	-	-	-	-	3.4	2.0	8.3	6.5
2019	3.7	1.9	9.3	9.0	2.7	1.4	7.1	6.3	3.3	1.3	8.4	9.9	3.2	1.5	8.3	8.4

Note: in percent. Years with no data omitted for brevity. Source: Survey of Consumer finances, 1983-2019; Survey of Income and Program Participation, 1984-2020; Current Population Survey Supplements, 2009-2019

Table A6: Unbanked Rates by Survey, including Asians

	SIPP					FDIC ASEC					Two Survey Average				
	All	White	Black	Hispanic	Asian	All	White	Black	Hispanic	Asian	All	White	Black	Hispanic	Asian
1984	16.5	11.6	45.6	35.5	15.2	-	-	-	-	-	16.5	11.6	45.6	35.5	15.2
1985	15.6	10.3	44.1	38.2	11.9	-	-	-	-	-	15.6	10.3	44.1	38.2	11.9
1986	15.2	10.5	43.0	33.3	6.9	-	-	-	-	-	15.2	10.5	43.0	33.3	6.9
1987	15.7	10.2	46.1	35.7	11.6	-	-	-	-	-	15.7	10.2	46.1	35.7	11.6
1988	15.1	9.7	43.4	36.8	11.3	-	-	-	-	-	15.1	9.7	43.4	36.8	11.3
1989	15.1	9.8	41.6	36.5	12.8	-	-	-	-	-	15.1	9.8	41.6	36.5	12.8
1991	15.1	10.1	41.7	35.6	8.5	-	-	-	-	-	15.1	10.1	41.7	35.6	8.5
1992	15.9	10.6	42.7	37.2	10.0	-	-	-	-	-	15.9	10.6	42.7	37.2	10.0
1993	15.6	10.1	41.6	37.4	12.7	-	-	-	-	-	15.6	10.1	41.6	37.4	12.7
1994	16.4	10.9	42.3	37.4	11.5	-	-	-	-	-	16.4	10.9	42.3	37.4	11.5
1995	16.3	11.1	39.7	34.6	13.6	-	-	-	-	-	16.3	11.1	39.7	34.6	13.6
1996	18.3	12.5	42.2	38.7	13.0	-	-	-	-	-	18.3	12.5	42.2	38.7	13.0
1997	19.6	13.6	44.4	40.1	15.2	-	-	-	-	-	19.6	13.6	44.4	40.1	15.2
1998	19.8	14.4	41.7	38.5	17.0	-	-	-	-	-	19.8	14.4	41.7	38.5	17.0
1999	20.1	14.6	42.3	38.4	16.9	-	-	-	-	-	20.1	14.6	42.3	38.4	16.9
2000	20.2	14.9	40.9	38.1	16.6	-	-	-	-	-	20.2	14.9	40.9	38.1	16.6
2001	20.6	15.2	41.5	39.1	14.4	-	-	-	-	-	20.6	15.2	41.5	39.1	14.4
2002	22.0	16.4	42.6	40.2	15.5	-	-	-	-	-	22.0	16.4	42.6	40.2	15.5
2003	22.7	17.2	43.4	39.4	17.8	-	-	-	-	-	22.7	17.2	43.4	39.4	17.8
2004	19.3	13.7	37.3	37.2	13.8	-	-	-	-	-	19.3	13.7	37.3	37.2	13.8
2005	18.9	13.5	36.9	35.7	12.2	-	-	-	-	-	18.9	13.5	36.9	35.7	12.2
2009	19.4	14.1	36.0	34.6	13.5	7.5	3.4	21.3	18.9	3.9	13.4	8.8	28.6	26.8	8.7
2010	21.0	15.8	38.1	35.5	15.1	-	-	-	-	-	21.0	15.8	38.1	35.5	15.1
2011	20.5	15.8	37.1	33.0	12.0	8.1	3.6	22.4	20.1	3.7	14.3	9.7	29.8	26.5	7.8
2013	11.3	7.4	24.1	20.4	5.0	8.0	3.8	19.8	19.7	2.5	9.6	5.6	22.0	20.0	3.8
2014	10.6	7.0	23.1	18.1	4.5	-	-	-	-	-	10.6	7.0	23.1	18.1	4.5
2015	9.5	5.8	21.1	17.1	4.9	7.0	2.9	18.9	17.1	3.6	8.2	4.4	20.0	17.1	4.2
2016	8.5	5.3	19.4	15.6	2.1	-	-	-	-	-	8.5	5.3	19.4	15.6	2.1
2017	6.7	3.6	16.2	13.5	3.7	6.4	3.0	17.5	13.8	3.1	6.5	3.3	16.8	13.6	3.4
2018	6.0	3.2	16.0	10.5	2.0	-	-	-	-	-	-	-	-	-	-
2019	4.8	2.5	12.1	9.7	1.7	5.6	2.3	15.3	13.6	2.4	5.2	2.4	13.7	11.7	2.1

Note: in percent. Years with no data omitted for brevity. Source: Survey of Income and Program Participation, 1984-2020; Current Population Survey Supplements, 2009-2019

Table A7: Reasons for Not Having Bank Account by Ownership Status, Race and Hispanic Origin

	All	White	Black	Hispanic
Because you don't like dealing with banks	26.8	25.6	27.2	28.0
	(0.7)	(1.0)	(1.1)	(1.4)
Because you don't write enough checks to make it worthwhile	21.8	19.9	19.0	29.4
	(0.6)	(1.0)	(0.9)	(1.4)
Because service charges are too high	14.7	15.0	15.0	13.8
	(0.5)	(0.9)	(0.8)	(1.1)
Don't have enough money	11.3	11.4	13.2	8.0
	(0.5)	(0.7)	(0.8)	(0.8)
Because the Minimum Balance is too high	6.6	4.3	7.2	9.4
	(0.4)	(0.5)	(0.6)	(0.9)
Respondent does not need/want a checking account	5.5	6.9	5.1	3.8
	(0.3)	(0.6)	(0.5)	(0.6)
Credit problems; bankruptcy; Respondent does not meet depository's qualifications for having an account	3.7	5.4	3.5	1.3
	(0.3)	(0.6)	(0.4)	(0.3)
Can't manage/balance checking account	2.9	2.7	3.5	2.3
	(0.3)	(0.4)	(0.4)	(0.5)
Concern about overdraft fees	1.4	2.1	1.3	0.6
	(0.2)	(0.3)	(0.3)	(0.3)
Someone else writes checks for respondent or manages account	1.3	2.7	0.6	0.0
	(0.2)	(0.5)	(0.2)	(0.0)
Because checkbook has been lost/stolen	1.1	0.4	2.2	0.5
	(0.2)	(0.2)	(0.3)	(0.2)
Because no bank has convenient hours or location	1.0	1.4	0.7	0.8
	(0.2)	(0.3)	(0.2)	(0.2)
Have not gotten around to it	0.9	0.7	1.4	0.5
	(0.1)	(0.2)	(0.3)	(0.2)
Respondent is not allowed to have account	0.8	1.1	0.2	1.4
	(0.1)	(0.2)	(0.1)	(0.4)
R has an account with other checking privileges (like money market)	0.2	0.3	0.0	0.4
	(0.1)	(0.1)	(0.0)	(0.2)
Observations	4,862	1,871	1,871	1,120

In percent. Standard errors in parentheses. Note: Sample includes those who report no bank account and respond to the question asking for the main reason for not having a bank account. Source: Survey of Consumer Finances Public Use Files, 2013-2019.

Table A8: Threefold Decomposition Results: 2013-2019, Stratified by Race

	Black/White Decompositions				Hispanic/White Decompositions			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
SCF								
Difference	-11.9***	-11.9***	-	-12.0***	-9.6***	-9.6***	-	-9.6***
	(0.6)	(0.5)		(0.4)	(0.5)	(0.5)		(0.5)
Endowments (explained)	-6.8***	-8.0***	-	-9.0***	-6.1***	-8.5***	-8.6***	-8.7***
	(0.6)	(0.5)		(0.4)	(0.5)	(0.5)	(0.5)	(0.4)
Coefficients (unex-plained)	-9.2***	-6.8***	-	-6.1***	-6.7***	-3.1***	-3.3***	-3.0***
	(0.4)	(0.4)		(0.4)	(0.4)	(0.5)	(0.5)	(0.5)
Interaction	4.1***	2.8***	-	3.2***	3.2***	2.0***	2.3***	2.1***
	(0.3)	(0.3)		(0.3)	(0.3)	(0.4)	(0.4)	(0.4)
		N=(15,378)				N=(14,772)		
SIPP								
Difference	-13.9***	-13.9***	-13.9***	-14.0***	-9.9***	-9.9***	-9.9***	-9.9***
	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Endowments (explained)	-5.4***	-8.0***	-8.9***	-10.0***	-4.1***	-7.1***	-7.6***	-8.0***
	(0.5)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Coefficients (unex-plained)	-12.1***	-9.0***	-8.5***	-7.9***	-8.2***	-4.9***	-4.6***	-3.9***
	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.6)	(0.6)	(0.6)
Interaction	3.6***	3.0***	3.4***	3.9***	2.4***	2.2***	2.3***	2.0***
	(0.4)	(0.3)	(0.3)	(0.3)	(0.3)	(0.5)	(0.5)	(0.6)
		N=(128,445)				N=(127,782)		
FDIC ASEC								
Difference	-14.8***	-14.9***	-14.9***	-	-13.0***	-13.0***	-13.0***	-
	(0.62)	(0.6)	(0.6)		(0.5)	(0.6)	(0.6)	
Endowments (explained)	-6.3***	9.9***	-9.1***	-	-6.3**	-9.9***	-10.5***	-
	(1.2)	(0.568)	(0.6)		(0.4)	(0.5)	(0.5)	
Coefficients (unex-plained)	-13.2***	10.1***	-9.8***	-	-11.5***	-8.1***	-7.1***	-
	(0.8)	(0.6)	(0.6)		(0.6)	(0.6)	(1.0)	
Interaction	4.8***	5.2***	4.1***	-	4.7***	5.1***	4.6***	-
	(1.2)	(0.6)	(0.7)		(0.5)	(0.5)	(1.0)	
		N=(36,277)				N=(36,523)		
Demographic Controls	-	X	X	X	-	X	X	X
Full Model	-	-	X	X	-	-	X	X
Net Assets	-	-	-	X	-	-	-	X

* p<0.1, ** p<0.05, *** p<0.01. Standard errors in parentheses. Note: In percent. Estimates weighted by inverse proba-bility replicate weights, with robust standard errors. Results from Probit Model. Pooled Decomposition. Children get value of household reference person in FDIC ASEC and SIPP. Source: Survey of Consumer Finances, 2013-2019; Survey of Income and Program Participation, 2014-2020; Current Population Survey Supplements 2013-2019.