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# A New Look at Racial Disparities Using a More Comprehensive Wealth Measure

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Most research measuring disparities in wealth by race relies on data that exclude resources that are disproportionately important to low-wealth and non-white families, namely defined benefit (DB) pensions and Social Security. This paper finds that once these resources are included, disparities in wealth between white families and Black and Hispanic families are substantially smaller and that they are not rising over time. The powerful equalizing roles of DB pensions and Social Security highlighted here are further motivation for maintaining their fiscal health.

This paper also presents results on the wealth of Asian families—typically excluded from most research due to limited sample sizes. Including Asian families is important, however, because they are a rapidly growing segment of the population and they have become the highest-wealth racial group in the United States.

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Large and persistent disparities in wealth by race are well documented, but most of the widely cited statistics measuring these disparities exclude assets that are disproportionately important for racial minorities. Defined benefit (DB) pensions remain a vital resource, particularly for Black families due partially to their relatively strong representation in public sector employment. However, DB pensions are not reflected in most household wealth measures. The commonly cited statistics also exclude household wealth embodied in the Social Security program. Financing consumption in retirement is arguably the most important reason for household saving, and Social Security is the largest source of income for most families in retirement.

In this paper, we analyze an expanded wealth concept, developed in Jacobs et al. (2020, 2021), that includes both DB pensions and net Social Security wealth (SSW) for a sample of households with heads aged 40 to 59. Using this measure of "combined wealth," we find that racial wealth gaps are substantially smaller than those calculated using the typically available measure, market wealth.<sup>1</sup> Specifically, the disparities in wealth between white and Black families are approximately half as large as those calculated excluding these additional forms of wealth.

We also report wealth—using both market wealth and combined-wealth concepts—for Asian families in addition to Black, Hispanic, and white families. Asians are not typically included in wealth statistics reported from household surveys due to relatively small sample sizes. This is problematic, because Asians are a growing segment of the population and have, in fact, become the highest-wealth racial group in the United States (Thompson and Weller 2018). We combine pairs of survey years from the Federal Reserve Board's triennial Survey of Consumer Finances (SCF) for a somewhat broader age range (households with respondents aged 30 to 62) in order to report wealth for Asian families.

Finally, for each of the four racial groups, we also present measures of the distribution of wealth and the shares of families with very low financial resources. Within every group, we observe significant variation in economic outcomes such as wealth. Racial categories are quite broad, lumping together many different families that may have little in common culturally or economically. Each race category in the SCF includes recent and generations-past immigrants from a wide range of counties speaking different languages. Unsurprisingly, we find a high level of wealth inequality within each racial group. We also find a substantial number of low-wealth

<sup>&</sup>lt;sup>1</sup> Market wealth is the sale value of assets over which the respondent has ownership less debts at the time of the survey. For some asset types (such as bank accounts or defined-contribution pensions) the sale value is the same as the account balance. For other assets (businesses or real estate), the sale value is what the respondent believes the asset would bring if sold. The definition of net worth used in the Survey of Consumer Finances is a market wealth concept. For the purposes of this analysis, holders of defined benefit pensions and current or future recipients of Social Security do not have ownership of those assets and cannot sell them, thus they are not considered forms of market wealth from the perspective of the respondent.

families within each racial group, with particularly high rates of low-wealth status among Blacks and Hispanics.

Policymakers interested in promoting wealth building for families and groups with few resources should take the full range of existing assets and policies into account. The additional resources we include in our combined-wealth measure are disproportionately important for low-wealth Black and Hispanic families, and their inclusion results in considerably smaller racial wealth disparities. These findings also have potential implications for future policy action. The crucial role played by DB pensions for the wealth of Black families further demonstrates the importance of efforts to maintain the financial health of these systems. The powerful equalizing role of Social Security is further motivation for maintaining the fiscal health of the system, and it also suggests how social insurance programs can protect and bolster the resources of low-wealth families.

In the remainder of the paper, we (1) demonstrate the importance of including DB pensions and Social Security in the wealth concept to evaluate household well-being, including racial disparities, and economic policy; (2) describe the Survey of Consumer Finances (SCF) and summarize the methodologies used in Jacobs et al. (2020, 2021) in developing the combinedwealth measure that includes DB pensions and SSW, in addition to traditional market wealth; (3) compare wealth levels and racial disparities over time using the different wealth concepts; (4) present wealth estimates for Asian households; (5) estimate wealth variation within racial groups as well as the incidence of low wealth; and (6) discuss the broad implications for our understanding of racial disparities that result from using the combined-wealth measure.

## **1.** Why We Should Include DB Pensions and Social Security alongside Market Net Worth to Understand Wealth and Inequality

Among the reasons researchers look beyond income or consumption to wealth as a measure of economic well-being is that it is a store of value with attributes not shared by those other flow measures. Wealth can support families facing economic shocks that disrupt income; it can be used as collateral to obtain financing that creates additional opportunities; and it can be left as a bequest to support family members in the future. One of the most important uses of wealth, and a primary motivating factor for any type of saving, is to finance future consumption, particularly in retirement.

The market wealth concept measured in household surveys, including both the Survey of Consumer Finances (SCF) and the Panel Study of Income Dynamics (PSID), however, excludes major assets that are crucial to retirement. There are reasonable justifications, both conceptual and

measurement related, behind the focus on market wealth. The assets reflected in market wealth concepts, including "Bulletin" net worth in the SCF,<sup>2</sup> can be consumed over time or at any point in time, sold at will, or given away through a gift or bequest. They can also be used as collateral to obtain financing, and they potentially can be accumulated to such an extent that they make the holder "wealthy," which confers social prestige and potentially political power. Also, because of the standard treatment of market assets for taxation, accounting, and transaction purposes, their value is readily measured.

However, because market wealth excludes key resources available to families in retirement, it has important shortcomings. Market wealth understates the financial well-being of families with defined benefit (DB) pensions as well as those who (will) rely substantially on Social Security in retirement (Poterba 2014). Social Security benefits alone represent the single-largest source of retirement income for more than 60 percent of retired households (Social Security Administration 2016). For a large number of households, it is—or will be—the sole source of income in retirement. Because of the extremely broad coverage of the program and the progressivity of the benefit structure, Social Security wealth (SSW) accrues relatively more for lower-income households. And as we will show, the exclusion of DB pensions from market wealth omits a form of wealth particularly important to Black families.

Beyond overlooking valuable resources that can be added to families' balance sheets to arrive at an arguably preferable wealth concept, using market wealth as a measure of well-being *and* to compare well-being across households is further complicated by the fact that families can substitute between these different retirement saving vehicles. To the extent that the presence of Social Security or DB plans causes families to save less in defined contribution (DC) accounts or other savings plans, market wealth is not just incomplete but also skewed (see Feldstein and Pellechio 1979, Gustman and Steinmeier 1999, and Poterba et al. 2011). The presence of both DB pensions and Social Security will cause some households, particularly low-income households, to save less for retirement than they otherwise would.

Relying on market wealth will skew our understanding of wealth and inequality at any point in time and how they have evolved over time. The expansion of the Social Security program over time means that it plays a more important role for household finances now than at any point in the past. Furthermore, the evolution of the employment-based retirement system in recent decades means that a substantial portion of the savings in account-type plans represents resources transferred out of DB plans and into DC plans.

 $<sup>^{2}</sup>$  See Bhutta et al. (2020a).

Because both SSW and DB pensions disproportionately benefit households below the top portion of the wealth distribution, their inclusion significantly alters estimates of wealth concentration. Jacobs et al. (2021) show that—for households headed by someone aged 40 to 59—the top 5 percent's share of combined wealth was 45 percent in 2019, considerably less than the 63 percent held by the top 5 percent of the distribution of market wealth.

Using the combined-wealth concept also has important implications for our understanding of racial disparities in wealth. This is due to the importance of Social Security as a resource for lower-income families, who are more likely to be Black or Hispanic, but also due to the value of DB pensions for non-white families. For example, Black households are just as likely to have DB pensions as white households, but they are far less likely than white households to have DC pensions and overall have significantly fewer assets in these plans. It is true that DB pensions are much less common today than they were 30 years ago; one of the defining features of the revolution in employment-based retirement plans was the elimination of the DB pensions and the adoption of DC plans. Despite this transition, the assets held in DB pensions remain substantial—representing about 15 percent of aggregate household wealth—and are of particular importance for Black families. Among Black families, average DB wealth is almost twice as large as the average wealth from all non-retirement sources. By contrast, among white families, average DB wealth is less than half as large as average non-retirement wealth.

Wealth-gap measures using the combined-wealth concept show substantially less racial wealth disparity. For example, the ratio of mean white family wealth to mean Black family wealth in 2019 using market wealth was 5.5, but it was only 3.0 when using combined wealth. The white/Black wealth ratio for the typical (median) family falls from 5.8 to 3.0 when we shift from market wealth to combined wealth. When we adjust further for the number of primary adults in the family, the mean white/Black gap drops to 2.4, and the median white/Black gap falls to 2.1.

The decline in the mean racial wealth gap when moving to combined wealth is mostly due to the influence of DB pensions and, to a somewhat lesser extent, to the inclusion of SSW. The change in the median wealth gap, however, is almost entirely due to Social Security. SSW exceeds projected market net worth for half of white families and for two-thirds of Black and Hispanic families.

Combined wealth is also distributed more equally than market wealth within racial groups. The Gini coefficient, the top 5 percent's share, and the P90/P50 ratio of wealth all are substantially lower for the within-race distribution of combined wealth than for market wealth.<sup>3</sup> This

<sup>&</sup>lt;sup>3</sup> The Gini coefficient measures deviation from a perfectly equal distribution. A coefficient of 0 indicates perfect equality (all households have identical wealth), while a coefficient of 1 is a result of all resources being held by a

difference is mostly driven by the inclusion of Social Security, as it is disproportionately important for wealth at the lower and middle parts of the distribution for all races.

Asian families show the highest level of inequality at the bottom of the wealth distribution (measured by the P10/P50 ratio), with families at the 10<sup>th</sup> percentile having just 5 percent as much market wealth as those at the median (50<sup>th</sup> percentile) for the 2016–2019 period, compared with 8 percent among white families, 22 percent among Hispanic families, and 29 percent among Black families. Shifting to combined wealth results in declines in inequality at the bottom of the distribution among Asians, whites, and Hispanics, pushing families at the 10th percentile substantially closer to those at the median. Among Black families, wealth inequality, measured by the P10/P50 ratio, is similar across the two wealth concepts, as the equalizing influence of Social Security is offset by the impact of DB pensions, which pull wealth at the middle of the distribution upward and away from the bottom.

#### 2. Data and Methods

Because the illiquid, non-market wealth represented by DB pensions and Social Security is not directly available in household-level survey data, it is typically excluded from measurement and analysis of wealth distribution. To remedy this, Jacobs et al. (2021) take data from the SCF, estimate earnings trajectories over the life cycle to predict future Social Security income streams, and combine these estimated earnings with estimated accrued DB assets and other (market) wealth holdings. We extend the work of Jacobs et al. (2021) to analyze racial wealth disparities using the combined wealth concept for a sample of households with heads aged 40 to 59, who are reaching peak wealth accumulation before drawing down assets in retirement.<sup>4</sup> Below, we provide an overview of the basic methodology for estimating the components of combined wealth. For a more thorough discussion, see Jacobs et al. (2020, 2021).

#### 2A. The Survey of Consumer Finances

The primary data used come from the 11 waves of the Federal Reserve Board's triennial Survey of Consumer Finances (SCF) conducted from 1989 through 2019. Several features of the SCF make it appropriate for exploring the distribution of wealth. The survey collects detailed information about households' financial assets and liabilities and has employed a consistent design and

single household. The P90/P50 ratio divides the wealth of a household at the 90<sup>th</sup> percentile of the wealth

distribution by the wealth held by the household at the exact mid-point of the distribution (the 50<sup>th</sup> percentile). <sup>4</sup> We focus on this age group for several reasons. In related work (Jacobs et al. 2020), we use the expanded wealth concept to explicitly explore retirement income adequacy in a population that is approaching, but not yet at, the age of retirement. Also, the estimation of future work histories is less dependent on assumptions, as respondents who are 40 to 59 have already spent significant time in the workforce, reducing the assumptions necessary to most accurately predict future labor force participation. Finally, this approach has the added benefit of reducing the impact of the evolving age composition of households, which complicates the interpretation of inequality trends.

sample frame since 1989. The SCF includes information on the value of all financial and nonfinancial assets, including residential and non-residential real estate and privately held businesses, reported by the respondent at the time of the interview. Questions on household debt cover all types of debt, including credit cards, mortgage debt, student loans, business debts, and other miscellaneous forms of debt.<sup>5</sup>

In addition to collecting data about a family's finances, the SCF collects basic demographic information pertaining primarily to the respondent (that is, the family head). The survey records the respondent's self-identified race, chosen from among seven options. The exact wording of the telephone version of the survey is as follows: "Which of these categories do you feel best describe you: white, Black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, Hawaiian Native or other Pacific Islander, or another race?" Before 1998, respondents could choose only one category. Since 1998, they have been allowed to select multiple categories, but first they are asked to indicate the category with which they identify most strongly (Kennickell 1999).<sup>6</sup>

In the following analysis, we use the race variable reflecting the first option that the respondent chose, starting with the 1998 SCF and for all of the following surveys, in order to avoid any potential complications related to the changes in the race variable in 1998 (allowing for the selection of multiple races) and in 2004 (allowing for the separate identification of Hispanic ethnicity).<sup>7</sup>

Because of the unique design of the SCF, which includes oversampling households with predicted high net worth using tax information from the Internal Revenue Service, its data are commonly used to explore wealth concentration at the top of the distribution (Wolff 1995, 2021; Keister and Moller 2000; Kennickell 2006; Bricker et al. 2016, 2017, 2020; Fisher et al. 2021). Since the survey also collects basic household demographic information, its data also have been used frequently to explore racial disparities in wealth (Dettling et al. 2017; Thompson and

<sup>&</sup>lt;sup>5</sup> The unit of analysis in the SCF is the "primary economic unit" (PEU), which refers to a financially dependent related (by blood, marriage, or unmarried partners) group living together. This concept is distinct from either the household or family unit employed by the Census Bureau, but it is conceptually closer to the latter, and throughout this paper, PEUs are referred to as "families." Single individuals living alone are included and simply considered a family of one. In the SCF, the respondent is the adult in the primary family who is most knowledgeable about the family's finances.

<sup>&</sup>lt;sup>6</sup> The race variable in the public version of the SCF is based on the first answer provided. Very few people give more than one response. As of 2004, respondents, regardless of race, are also asked a question to determine whether their cultural origins are Hispanic or Latino.

<sup>&</sup>lt;sup>7</sup> The wealth numbers here will differ somewhat from those in Dettling et al. (2017) and Bhutta et al. (2020), which identify "white" families as those headed by respondents self-identifying as white, non-Hispanic only; "Black" as those whose head identifies as Black or African American, non-Hispanic only; and "Hispanic" as those whose head identifies as Hispanic only.

Weller 2018; Wolff 2018; Thompson and Suarez 2019; Kakar et al. 2019; Bhutta et al. 2020b). Indeed, one of the most commonly cited statistics on this topic, that the typical white family has 10 times as much wealth as the typical black family (10.4 in 2016 using non-projected net worth among households in the 40–59 age range we study here), comes from analysis of the SCF. Although that number had decreased to 8.6 by 2019, it is still based on SCF Bulletin net worth, which nearly every researcher employs when using the SCF to examine racial disparities in wealth.<sup>8</sup> By not including wealth from DB pensions and Social Security, these analyses understate the wealth and resources available to non-white households.

#### **2B. DB Pensions**

The SCF includes several detailed questions about DB pensions but does not capture the asset value of plan benefits. The survey does ask DB plan participants about expected future benefits, but many workers, particularly those further from retirement age, know little about their plans or future benefits. It has long been acknowledged that the information collected from these future-benefit questions is not necessarily a good reflection of what respondents will actually receive (Starr-McCluer and Sunden 1999). Measures based on answers to questions about expected future DB benefits are not included in Bulletin net worth.

Instead of relying on the expected-future-benefit responses provided by DB plan participants,<sup>9</sup> we follow Jacobs et al. (2021) and use household-level estimates of DB pension wealth developed by Devlin-Foltz et al. (2016) and updated by Sabelhaus and Volz (2019, 2021). This approach distributes aggregate household sector DB assets from the Financial Accounts of the United States (FA) to both current and future beneficiaries using survey information on benefits currently received for those receiving payments, reported future payments for those with coverage from a past job, and wages and years in the plan for those not yet receiving benefits.

The estimates combine the survey information with real discount rates that fluctuate over time, cohort life tables and differential mortality, and the assumption that current beneficiaries have first claim to DB plan assets. Devlin-Foltz et al. (2016) and Sabelhaus and Volz (2019, 2021) find that including the implied assets from future pension benefits modestly reduces inequality in the distribution of wealth, but they do not explore disparities in wealth by race.<sup>10</sup>

<sup>&</sup>lt;sup>8</sup> One important exception here is Wolff (2018), but the methodological approach taken by Jacobs et al. (2021) represents a considerable improvement over that earlier work. See footnotes 17 and 25 (below) for more detailed comparisons with the methodology and findings in Wolff (2018).

<sup>&</sup>lt;sup>9</sup> This is the approach taken in Wolff (2007, 2014, 2018).

<sup>&</sup>lt;sup>10</sup> Using a public-use version of Sabelhaus and Volz's (2021) DB wealth estimates, Madowitz et al. (2020) note that the inclusion of DB pensions reduces the median racial wealth gap.

#### **2C. Social Security**

Estimating future Social Security benefits requires information about a person's full earnings history up to the time of retirement. Estimating earnings histories, as well as projecting earnings up to the time of claiming Social Security, for respondents and spouses in the SCF is one of the major contributions from Jacobs et al. (2020, 2021) that we utilize here. To construct those estimates, the authors apply the growth patterns in earnings over the working life among workers observed in the Current Population Survey (CPS). These estimates of earnings trajectories from the CPS are based on synthetic cohort panels of individuals most similar to the SCF respondent based on birth year, occupation, education level, and sex. Earnings trajectories from the CPS are combined with the answers to the rich set of retrospective work history questions in the SCF to develop full earnings histories for all respondents (including spouses aged 30 to 65 years old) for all waves of the SCF from 1989 through 2019.<sup>11</sup>

The earnings projections are not stratified by race. To the extent that workers of any one race are more heavily concentrated in certain occupation and education groups, they will be more likely to follow the earnings trajectories of those groups. Any level differences in earnings across racial groups that are reflected in the earnings and work history data in the SCF will be maintained under these earnings projections, as the historical growth rates and future trajectories are anchored to the data reported by each survey respondent.

Equipped with an earnings profile for each individual from ages 20 through 61, one can apply Social Security benefit calculations for each household.<sup>12</sup> All individuals are assumed to start receiving benefits at age 62, which provides a lower bound for total household net Social Security

<sup>&</sup>lt;sup>11</sup> See Jacobs et al. (2020, 2021) for details on the projection methods.

<sup>&</sup>lt;sup>12</sup> The old-age pension portion of Old Age, Survivors and Disability Insurance (OASDI), what we refer to here as simply "Social Security," has undergone substantial changes since its inception, including changes to the benefit and eligibility rules and the full retirement age, among others. The most dramatic of the changes relevant to racial disparities, the 1954 inclusion of domestic workers and farm workers, occurred 35 years before our sample period begins and does not impact our estimates of Social Security wealth (SSW). Other recent changes, namely the 1983 reform that transitioned federal civilian employees from the Civil Service Retirement System into Social Security and the Federal Employment Retirement System and the 1990 expansion to cover state and local government workers not covered by plans provided by their employers, can be expected to influence estimates of SSW in the sample period. We are unable to identify federal employees in the SCF and thus apply current OASDI program rules, assuming they are paying into and eligible for benefits from Social Security over their entire work history. For state and local government employees (identified in the SCF through a combination of occupation [for example, "teachers"] and industry ["public administration"] and their coverage by a DB pension), we do not allocate SSW to those living in states where public workers are not covered by Social Security. As a result of this decision, we do not attribute SSW to federal employees living in those states, as we cannot separately identify them in the SCF. Since only 9 percent of federal workers reside in states that do not extend Social Security coverage to public workers, and only 3 percent of workers aged 40 to 59 are employed by the federal government, relatively few SCF families will be affected by this misclassification (authors' analysis of American Community Survey 2018–19).

wealth (SSW).<sup>13</sup> Future benefits are discounted to the survey year using a 3 percent real discount factor and survival rates that vary by cohort, marital status, and income percentiles (relying on cohort life tables from the Social Security Administration and differential mortality estimates from Chetty et al. 2016).<sup>14</sup> The measure of SSW used is net of expected future employee contributions. Thus, for every year following the survey, we calculate expected tax payments of 6.2 percent and subtract the present value of all future contributions from the gross SSW measure calculated.<sup>15</sup>

In recent work, Sabelhaus and Volz (2021) also estimate SSW for all SCF respondents to study the accumulation of SSW over the life cycle.<sup>16</sup> Their estimation approach for SSW and a wealth concept are slightly different from that of Jacobs et al. (2021), but they reach similar conclusions about the levels and trends of overall wealth inequality. Neither Jacobs et al. (2021) nor Sabelhaus and Volz (2021) evaluate wealth disparities by race.

#### 2D. Creating the Combined-Wealth Measure

The combined-wealth measure is created by bringing together (1) the implied wealth of Social Security benefits, which is based on earnings projected until the time of retirement net of future contributions; (2) wealth from DB pensions projected to the expected job end date; and (3) projected future wealth from all assets and debt measured directly in the SCF. For this last component, Jacobs et al. (2021) project the anticipated value of net worth to age 62, creating consistency with the estimates of SSW (which reflect expected benefits at age 62, not only those accrued at the interview date). These projections are based on in-sample estimates of the growth paths of wealth from age 30 to 62 using all 11 SCF cross sections (1989 through 2019). See Jacobs et al. (2021) for details on the projection method for components of SCF market wealth.<sup>17</sup>

<sup>&</sup>lt;sup>13</sup> See Henriques (2018) for a discussion on the impact of the Social Security claiming age on household SSW. <sup>14</sup> Secondary earners, typically wives, are entitled to their own benefits calculated from their past earnings but also from spousal and survivor benefits. Jacobs et al. (2021) assign spousal benefits to the household if the expected spousal benefits are larger than the wife's worker benefits at age 62. If the duration of the current marriage is less than 10 years at age 62, the wife is not eligible for spousal or survivor benefits. The SCF does not collect information about the durations of all previous marriages; thus, some individuals with more than one marriage may not be accurately assigned dependent benefits from a former spouse.

<sup>&</sup>lt;sup>15</sup> In some states, public employees who are enrolled in a state DB pension plan do not pay into, and are not eligible for benefits from, Social Security. Our calculation of combined wealth does not allocate any SSW to public employees with DB pensions currently living in those states.

<sup>&</sup>lt;sup>16</sup> Previous research estimates SSW to form broader wealth concepts, including work by Kennickel and Sunden (1997), Wolff (2007, 2014), and Munnell et al. (2018). This literature is discussed at greater length in Sabelhaus and Volz (2021) and Jacobs et al. (2020, 2021).

<sup>&</sup>lt;sup>17</sup> Jacobs et al. (2021, 2020) provide details on the methodology for estimating DB wealth and Social Security wealth (SSW) for the combined-wealth measure used here. They also review methodologies used in other literature that takes a similar approach to expanding the wealth concept. Wolff (2007, 2014) represents an alternative approach to developing "augmented wealth," which includes DB pensions and Social Security. The work by Jacobs et al. (2021, 2020) represents an advancement on Wolff in estimating both of these asset types. Two improvements

#### 3. Measuring Wealth Disparities Using Combined Wealth

#### **3A. DB Pensions and Black Family Wealth**

Before turning to the combined-wealth estimates, we look at how data from the SCF and the American Community Survey (ACS) can shed light on the importance of DB pensions for the wealth of Black and Hispanic families and their potential equalizing role for racial wealth disparities. First, Black workers are heavily represented among public sector jobs, where DB pensions remain relatively common.<sup>18</sup> The concentration of Black workers in the public sector is particularly pronounced among federal workers and also among workers with bachelor's degrees (BA). Analysis of data from the ACS from 2018 and 2019 indicates that 5.3 percent of Black workers aged 40 to 59 are employed as civilian employees of the federal government, compared with 3.2 percent of all workers (Table 1). Among BA holders, 25.2 percent of Black workers are employed in public administration, which includes state, local, and federal government plus all teaching positions, compared with 18.3 percent of all workers. Nearly 9 percent of all Black workers with a BA are employed by the federal government, which is twice the rate of all workers with a BA. Hispanic workers overall are less likely than the average worker to be employed in public administration, but those with a BA are slightly more likely to work in public administration than the average BA holder.

Looking at participation in employment-based retirement plans, data from the SCF indicate that DB plans have the least disparity in participation rates by race. Nearly 18 percent of white and Black families, among families with heads aged 40 to 59, were headed by workers enrolled in DB plans in 2019, as were 12 percent of Hispanic families (Table 2). Defined contribution (DC)

by Jacobs et al. (2021, 2020) are the introduction of out-of-sample information that improves the reliability of the predictions and the restriction of the prediction to an age group for which predictions are going to be more reliable. Wolff estimates the asset value of DB pensions for current workers by calculating the present value of the stream of benefits based on expected future pension benefits reported by respondents, assuming standard rates of return and discount rates. Given the inconsistent quality of information that DB pension holders have about future pension benefits, the methodology from Devlin-Foltz et al. (2016) and Sabelhaus and Volz (2021) used by Jacobs et al. (2021, 2020) represents a considerable improvement. The reliability of DB pension information deteriorates the further the respondent is from retirement age; Wolff estimates DB wealth for the entire age distribution, while Jacobs et al. (2020, 2021) restrict their focus to the 40-59 age range, when DB pension information is more salient. Also, the transition into and out of DB plans is expected to be much more extensive among the under-40 age group compared with the 40-59 age group. These methodological advancements extend to the estimation of SSW. The focus on the 40-59 age group improves the quality of the estimation of lifetime earnings. This age group has detailed work history data in the SCF that can be used to construct earnings histories and relatively few future working years over which to predict future earnings. Jacobs et al. (2021, 2020) also use actual earnings-growth data, based on a synthetic panel of cohorts of similar-type workers in the Current Population Survey (CPS) to estimate future earnings. Wolff (2018) relies on an in-sample prediction of earnings from a repeated cross section of the SCF. The growth in earnings in Wolff's (2018) future earnings projection is actually driven by cross-sectional variation in earnings by age.

<sup>&</sup>lt;sup>18</sup> The importance of public sector employment for Black workers has been explored previously by other researchers. See, for example, Pitts (2011) and Madowitz et al. (2020).

plans have become far more common than DB plans among all racial groups in recent decades, but participation across races differs dramatically. In 2019, half of all white families were enrolled in a DC plan, compared with just over one-third of Black families and one-fourth of Hispanic families.<sup>19</sup>

Epitomized by the shift away from DB to DC plans, the basic changes in the employment-based pensions system in the United States over the last four decades are fairly well known, however, DB plans remain an important source of wealth for a large number of workers.<sup>20</sup> The decline in DB participation was sharp through the 1990s, but DB participation among Black and Hispanic families has held steady since 1998. The large DB participation gaps by race that were present in the late 1980s have nearly vanished.

#### **3B.** The Components of Combined Wealth

Mean (projected) market wealth for white families in 2019 was \$1.02 million, of which \$224,000 was held in defined contribution (DC) pensions, and \$792,000 was in other financial and non-financial assets, including real estate, businesses, savings accounts, and directly held stocks, among others (Table 3).<sup>21</sup> Mean estimated wealth in DB pensions was \$327,000, greater in value than DC accounts by nearly 50 percent. Average net wealth from Social Security for white families in 2019 was \$253,000, slightly greater than the average value of DC accounts. Combining these three components, projected market wealth from the SCF with projected DB pension wealth and projected net Social Security wealth (SSW), results in average combined wealth of \$1.6 million for white families.

Average wealth among Black and Hispanic families is substantially lower and has a different composition. Combined wealth for the average Black family was \$524,000 in 2019, one-third of the average white family's combined wealth. Average DB wealth (\$208,000) was more than three times larger than average DC wealth (\$62,000), compared with just 50 percent greater for white families. Among Black families, average SSW (\$130,000) was more than twice the average balance in DC accounts. Average combined wealth among Hispanic families was

<sup>&</sup>lt;sup>19</sup> Cross-race differences in retirement plan access and coverage have been explored by many researchers, though typically using data at the worker level. See, for example, Rhee (2013) from the National Institute on Retirement Security.

<sup>&</sup>lt;sup>20</sup> Researchers at the Economic Policy Institute (Morrissey 2019) have argued that the shift away from DB to DC plans has had particularly negative consequences for Black and Hispanic workers, as well as other low-income workers, as they are less likely to be covered by DC plans and the benefit is less valuable.

<sup>&</sup>lt;sup>21</sup> All statistics presented in Tables 3 and 4 are calculated for households with heads aged 40 to 59, projected forward to age 62 and discounted back to the age at the time of the survey.

\$609,000 in 2019 and composed similarly to that of Black families, with DB pensions and SSW each three times as great as the value of DC accounts.<sup>22</sup>

Adding these non-market components substantially raises average family wealth for all races. The average combined wealth of \$1.6 million for white families in 2019 was 60 percent greater than the average of \$1.02 million represented just by market wealth. For Black families, combined wealth was nearly three times as large as market wealth, on average, and for Hispanic families, it was more than twice as large. Average Black wealth climbs from \$186,000 to \$524,000 once DB pensions and SSW are included; among Hispanic families, average wealth rises from \$255,000 to \$609,000.

Using a different summary statistic—the median—we again see that combined wealth results in substantially greater wealth for typical households of every race (Table 4). Median combined wealth in 2019 was \$596,000 for white families, \$197,000 for Black families, and \$269,000 for Hispanic families. Median combined wealth was nearly three times greater than market wealth for white families and roughly five times greater for Black and Hispanic families.

Median family DB wealth was zero for each race in 2019, as far less than half of each group held this type of pension. For Blacks and Hispanics—even among families headed by someone 40 to 59 years old—median DC pension wealth was also zero in 2019. The median amount of DC pension wealth held by white families was just \$21,000. The only form of retirement wealth that provides substantial resources for most families is Social Security. Median net SSW was \$239,000 for white families, \$111,000 for Black families, and \$156,000 for Hispanic families. Even with Social Security being the primary factor lifting combined wealth over market wealth, the difference was dramatic for the median for each race, as SSW provides significant lifetime resources for families.

To better understand the composition of combined wealth for a "typical" family, we can also pivot away from the within-race median and instead show the averages among families that are

<sup>&</sup>lt;sup>22</sup> One concern regarding the methodology of Jacobs et al. (2021) for estimating earnings histories using past-job information from the SCF, particularly when it concerns racial disparities, is that for immigrants we are uncertain whether reported previous work was carried out in the United States and is thus actually eligible in determining Social Security benefits. This is a greater concern in estimating combined wealth for Hispanic and Asian families than for either Black or white families, but for a variety of reasons, the actual impact on predicted Social Security wealth of any group is quite small. Based on the number of potentially eligible working years in the United States and the progressive elements in the Social Security benefit formula, we calculate that Jacobs et al. (2021) overestimate average benefits among Asian families by 2 percent and by 1 percent among Hispanic families in 2019. For earlier periods, this overestimation is modestly higher, hitting 4 percent among Asians and 2 percent among Hispanics in 1995. In sum, the potential overestimation of Social Security wealth in the SCF due to immigration is quite small on average, and it is becoming smaller over time. Details of the data analysis and calculations behind this assessment are contained in Appendix A.

in the very middle of the distribution (from the 45<sup>th</sup> to the 55<sup>th</sup> percentiles of combined wealth) (Table 5). For the typical white family, DB pensions accounted for 7 percent of combined wealth in 2019, DC pensions for 15 percent, non-retirement market wealth for 29 percent, and SSW for 49 percent. For the typical Black family, DB pensions accounted for 8 percent, non-retirement market wealth for 25 percent, and SSW for 66 percent. For Hispanic families, market wealth accounted for 30 percent of combined wealth and SSW for 65 percent.

The importance of Social Security is further demonstrated by the percentage of families for whom SSW exceeds the total value of their market wealth. For half of all white families (51 percent) and two-thirds of Black and Hispanic families (68 percent), the net value of Social Security exceeded market wealth in 2019 (Table 6). For a large number of families, SSW also stands out as their single largest asset. For 4 in 10 white families in 2019, SSW exceeded the value of each of their other types of assets, including all real estate, any businesses, account-type retirement plans, and DB pensions.<sup>23</sup> For more than half of Black families (55 percent) and Hispanic families (57 percent), SSW was similarly their single greatest asset.<sup>24</sup> The share of families to which we assign zero SSW—due to fewer than 40 quarters of eligible employment or public sector employment in a state where those workers are not covered by Social Security—is quite small, accounting for just 1.5 percent of white families and 2.8 percent of Black families in 2019.

#### **3C. Racial Disparities Using Combined Wealth**

DB pensions and Social Security both boost wealth to a greater extent among non-white families than among white families, and therefore their inclusion in wealth measures should be expected to result in reduced racial wealth disparities. The wealth estimates in Tables 3 and 4 indicate that this reduction is substantial. Average projected market wealth among white families was 5.5 times as great as that among Black families in 2019. Using combined wealth reduces this multiple to 3.0 (Figure 1A). The average white/Hispanic wealth gap was 4.0 using projected market wealth and 2.6 using combined wealth (Figure 1B).

The impact on racial wealth disparities measured at the median is also pronounced, particularly for the white/Black wealth gap. For the typical family, the white/Black wealth gap in 2019 was

<sup>&</sup>lt;sup>23</sup> For these calculations, we ignore any debt related to the asset type, for example mortgage debt associated with home ownership.

<sup>&</sup>lt;sup>24</sup> The method of Jacobs et al. (2021) for estimating lifetime earnings projects future earnings out until age 62 or the self-reported planned retirement age, whichever comes first. Due to disability or other reasons, not all workers will actually end up working over that entire period. In those cases, we may overestimate SSW. The implications of this overestimation, however, are likely modest, since our calculated benefits will overstate their lifetime earnings but an individual's Social Security Disability Income (SSDI) or Supplemental Security Income (SSI) payments could also be larger than our calculated benefit.

5.8 using projected market wealth and 3.0 using combined wealth (Figure 2A). The white/Hispanic wealth gap was 3.9 using projected market wealth and 2.2 for combined wealth (Figure 2B).

The wealth gaps displayed in Figures 1 and 2 also further demonstrate that DB pensions and SSW are relatively more effective at boosting combined wealth at different parts of the wealth distribution. DB pensions play a particularly important role in increasing wealth for the average non-white family, while SSW does so for non-white families at both the middle and the bottom of the wealth distribution. In 2019, the average white/Black gap in projected market wealth was 5.5; it falls to 4.0 when SSW (only) is added, and it falls to 3.4 when DB pension wealth (only) is added. Adding both forms of non-market wealth to the measure for combined wealth reduces the mean white/Black wealth gap to 3.0. Since the typical household does not have a DB pension, adding this form of wealth does not result in any systematic change in either the white/Black or the white/Hispanic median wealth gap. Instead, as shown in Figure 2, the median wealth gaps for projected market wealth plus SSW are indistinguishable from those calculated with combined wealth.

Examining the white/Black wealth gaps over time (Figures 1A and 2A) strongly suggests that racial wealth disparities trend quite differently for projected market wealth versus combined wealth. Looking at projected market wealth, the white/Black wealth gap increases over time. At the mean, the white/Black gap grew from 4.4 in 1989 to 5.5 in 2019, although the increase was not continuous and tended to fluctuate with the business cycle. At the median, the white/Black gap in projected market wealth decreased sharply from 1989 to 1995 but then started to increase. The median white/Black market wealth gap grew from 4.5 in 1995 to 8.6 in 2013 before closing to 5.8 in 2019.

No such upward trends are evident in white/Black gaps when using combined wealth, either at the mean or the median. Over the sample period, the white/Black gap increased only slightly at the mean but decreased modestly for the median. The average white/Black gap in combined wealth went from 2.1 to 3.0 from 1992 to 1998 but remained little changed thereafter, ending up at 3.0 in 2019. The median white/Black gap in combined wealth moved in the opposite direction. After decreasing during the early 1990s, from 3.5 in 1989 to 2.4 in 1995, the ratio rebounded,

growing to 3.9 in 2001 before decreasing again and flattening out over the following two decades, ending at 3.0 in 2019.<sup>25, 26</sup>

In contrast, there are no obvious trend difference between the white/Hispanic disparities measured with projected market wealth and those measured with combined wealth (Figures 1B and 2B). To be sure, white/Hispanic wealth gaps measured with projected market wealth are more volatile, with dips and swings that coincide with the business cycle, while those measured with combined wealth are flat. Measured over the entire 30-year sample period, though, white/Hispanic wealth disparities do not change.

Adjusting family combined wealth by dividing it by the number of primary adults in the family further reduces the racial wealth gaps—particularly the white/Black gaps—and further flattens the trend, as the difference in the average number of primary adults present between white and Black families has widened over time. The justification for expressing family wealth— particularly the measure of combined wealth—in this way is consistent with the use of "equivalence scales" in comparing income across household units. A similar amount of income, all else being equal, can be expected to result in different standards of living depending on the number of household members who need to be supported. In the case of combined wealth, we are interested in the number of adults in the family whose consumption will need to be maintained across retirement. We make a simple adjustment and divide the family wealth by the number of primary adults in the family (that is, the respondent and, if present, their spouse/partner). After we make this adjustment, the average white/Black gap in combined income falls further, to 2.4 in 2019, which is identical to its value in 1989. For the median

<sup>&</sup>lt;sup>25</sup> Despite considerable methodological differences in estimating DB pension and Social Security wealth (SSW), as well as including different age ranges, the approaches of Jacobs et al. (2021) and Wolff (2018) yield similar answers when applied to the question of racial disparities in wealth. Both methods show substantial reductions in racial wealth disparities once DB and SSW are included. Wolff (2018) evaluates "augmented wealth" for Black, Hispanic, and white households. He calculates an average white (non-Hispanic)/Black (non-Hispanic) augmented wealth ratio of 3.7 for 2016. Using the approach of Jacobs et al. (2021), we estimate an average white/Black combined wealth ratio of 3.5 for that same year. Wolff (2018) includes all age groups, while Jacobs et al. (2021) include only the 40–59 age range.

<sup>&</sup>lt;sup>26</sup> The differences in racial wealth disparities that result from shifting from projected market wealth to combined wealth are due to the inclusion of DB pensions and Social Security wealth. The measure of market wealth that is the base for combined wealth, however, also differs from market wealth reported at the time of the survey. The projection of market wealth to age 62 and then discounting back to age at time of the survey, as is done for calculating combined wealth, might be expected to result in smaller racial wealth gaps. This could result from the fact that white families (even within the 40–59 age range) are older, on average, than their non-white counterparts. Non-white families, thus, have additional time over which to build market wealth. This is in fact the case, but the reduction in the wealth gap from projecting market wealth is relatively small. For 2019, the mean ratio of white to Black family market wealth using wealth reported at the time of the survey is 5.59; using wealth projected to age 62, it is 5.46. Across all SCF survey years, market wealth projected to age 62 results in an average reduction in the mean white/Black market wealth gap of 0.16 on average. The magnitude of the reduction in the white/Hispanic gap in market wealth is similar. Details are available from the authors upon request.

family, adjusting for the number of adults reduces the white/Black gap in combined income to 2.1 in 2019, slightly less than its 1989 level of 2.5.

Because wealth is so highly skewed toward the right tail of the distribution, average wealth is substantially greater than what most families hold. The median avoids this skew, but we also calculate a trimmed mean, excluding the top and bottom 1 percent of the wealth distribution for each race. The trimmed mean of combined wealth per primary family adult was \$766,000 for white families in 2019, \$331,000 for Black families, and \$346,000 for Hispanic families (Table 3). The mean white/Black gap for trimmed combined wealth per primary adult was 2.3, and the white/Hispanic gap was 2.2 (Figure 1).

#### 4. Wealth of Asian Families

Most discussions of racial wealth disparity focus on differences between white and Black families. This focus is partly due to the specific history of racism in the United States—including the legacies of slavery and Jim Crow—which is uniquely relevant to the relations between Blacks and whites. It is also due partly to data limitations. In the SCF, the number of Asian respondents falls below a standard threshold for public release, so Asians are not identified specifically in the public data and are instead grouped into the "other" category with Native Americans, Pacific Islanders, and others. In this analysis, however, we combine pairs of recent survey years and provide estimates of mean and median family wealth for Asians for each year pair.<sup>27</sup> To ensure sufficient sample sizes to report statistics for Asian families, we also expand the age range. All results that compare Asians with other races include families with heads aged 30 to 62, somewhat broader than the 40–59 range used in the rest of the paper.

Identifying Asian wealth is important for understanding racial wealth disparities because the Asian population is growing rapidly. The Asian share of the US population grew from less than 1 percent (0.8) in 1970 to nearly 6 percent (5.9) in 2019. Asians also have become the highest-wealth racial group in the country. Mean market wealth of Asian families was \$1.2 million in the 2016/2019 year pair, compared with \$927,000 for white families (Table 7). Median Asian family net worth was \$355,000, nearly double that of white families (\$189,000).

Market wealth is higher among Asian families than other racial groups, but the two components of combined wealth that we introduce here—DB pensions and SSW—are similar for white and Asian families. Mean DB wealth was \$257,000 among Asian families in 2016/19, compared with \$314,000 for white families. At the median of each distribution, no families of any race had any

<sup>&</sup>lt;sup>27</sup> For survey years before 2010, the sample sizes of Asian households are sufficiently small that it would require us to combined three survey years and possibly further expand the age ranges for our analysis.

DB wealth. Mean SSW and median SSW were modestly higher among Asian families than among white families in 2016/19. On average, an Asian family had \$247,000 in net SSW in those years, compared with \$230,000 for a white family. The typical (median) Asian family had \$218,000 in SSW, while the typical white family had \$195,000.

Combined wealth was \$1.7 million in 2016/19 for the average Asian family and \$1.5 million for the average white family. The Asian/white gap is substantial in this year pair, but average combined wealth is very similar for Asians and whites in 2010/13. In 2016/19, median Asian family combined wealth was \$806,000, compared with \$539,000 for the median white family.

Adjusted for the number of primary adults, average Asian family combined wealth in 2016/19 was \$975,000, compared with \$840,000 for white families, \$307,000 for Black families, and \$344,000 for Hispanic families. Combined wealth for each primary adult in the median Asian family in 2016/19 was \$481,000, compared with \$334,000 for whites, \$134,000 for Blacks, and \$140,000 for Hispanics.

#### 5. Within-Race Wealth Distribution

Mean wealth and median wealth are regularly used to describe racial disparities in wealth, but these statistics alone, of course, do not characterize the entire distribution. Each race includes some very-high-wealth families and many very-low-wealth families. Also, the race categories themselves are incredibly broad and include huge variation in types of people; members of the same category may actually have little in common, either culturally, linguistically, or economically. The race category "Asian," for example, reflects recent and past immigrants from four dozen different countries speaking many different languages, as well as the descendants of immigrants to North America from as long ago as 200 or more years. The variation in the types of people combined into each of the four broad racial groups studied here is vast.

The within-race distributions of wealth, however, are not the same for white, Black, Hispanic, and Asian families. And while the addition of DB pensions and SSW results overall in more equal within-race wealth distributions, the magnitude of these effects is not the same for all races or all parts of the wealth distribution. To explore the distribution of wealth within racial groups, we calculate—in Table 8—several statistics of the distribution of four different wealth concepts in 2016/19 for the same racial groups used in Table 7.

One general conclusion is that wealth is distributed quite unequally within each racial group. The ratio of market wealth held by the 90<sup>th</sup> percentile of the within-race distribution to the 50<sup>th</sup> percentile of the within-race distribution in 2016/19, for example, was 9.1 for white families, 11.5 for Black families, 7.3 for Hispanic families, and 7.1 for Asian families. For that same pair

of years, the top 5 percent's share of market wealth was 57 percent for white families, 53 percent for Hispanics, 51 percent for Blacks, and 44 percent for Asians.

Another general conclusion from the statistics in Table 8 is that the distribution of total retirement wealth (DC plans and DB pensions plus SSW) is considerably more equal than that of market wealth. The 2016/19 Gini coefficient for total retirement wealth is one-fourth smaller than that of market wealth for white families, one-fifth smaller for Asians, and one-eighth smaller for Black and Hispanic families. The addition of DB pensions and SSW also results in combined wealth having a more equal distribution than market wealth for all races, according to the Gini coefficient, the top 5 percent's share, and the P90/P50 ratio.

Not all elements of retirement wealth, however, result in more equal within-race distributions for all races. Notably, the inclusion of DB wealth does not consistently result in a more equal distribution. DB pensions are held mainly by families who are in the top half of the wealth distribution but below the top 5 percent. The top 5 percent's wealth share is the only distribution statistic that consistently falls, for all races and in all periods, when DB pensions are added to projected market wealth. Using other distribution statistics, namely the Gini coefficient and the P90/P50 ratio, shows that DB pensions widen inequality among Black and Hispanic families and have a mixed impact on other racial groups.

At the bottom of the distribution, looking at the P10/P50 ratio, there are other findings of interest. First, among Black families, the shift from projected market wealth to combined wealth does not alter net measured inequality, with the equalizing impact of Social Security just offsetting the dis-equalizing impact of DB pensions between these points of the distribution. For white and Asian families, the opposite is true; the move to combined wealth pushes the 10th percentile closer to the median. Among Asian and white families, the reduction in P10/P50 inequality is substantial; while wealth at the 10th percentile of the distribution of projected market wealth is one-twentieth of that at the median among Asian families, it is nearly one-fifth of the median when using combined wealth.

#### 6. Low Wealth and Emergency Funds by Race

The main contribution of this paper is that it brings attention to the valuable resources contained in DB pensions and Social Security and what their value implies for our understanding of racial wealth disparities. Combined wealth is arguably a superior concept for assessing issues of resource adequacy generally and racial disparities in wealth, but it does have certain shortcomings. Because DB pension wealth (generally) and Social Security (by definition) cannot be accessed until retirement, and even then, only through monthly payments, the combinedwealth concept is not very helpful for understanding disparities in access to short-term or "emergency" resources. For such analysis, looking at market wealth, or even specific elements of market wealth, is preferred.

There are substantial numbers of families of every race, with heads aged 30 to 62, with low market wealth and low resources accessible for emergency purposes, but the shares are particularly large among Blacks and Hispanics. While 21 percent of Asian families and 29 percent of white families had less than \$50,000 in market wealth in 2016/19, the comparable numbers for Black and Hispanic families were 64 percent and 54 percent, respectively (Table 9).

This pattern is similar for access to "emergency" assets, defined here as market assets—as reported at the time of the survey—less real estate and vehicles.<sup>28</sup> These two assets are excluded, as they are generally regarded as necessities (housing and transportation) and can be relatively illiquid in the short term. While 18 percent of Asian families and 26 percent of white families held less than \$10,000 in "emergency" assets in 2016/19, the comparable shares were 53 percent and 58 percent for Black and Hispanic families, respectively.

The incidence of low wealth declined toward the end of the most recent economic expansion, falling for all races and for both measures of low wealth.

#### 7. Conclusions

Defined benefit (DB) pensions and Social Security provide streams of income that are crucial to supporting consumption in retirement for nearly all households. But they are not assets that households hold on their balance sheet. Since DB pensions and Social Security "crowd out" other forms of private savings, their exclusion from standard measures of market wealth limits our ability to understand the level of and trends in household wealth and well-being. And because they are more broadly distributed than market wealth, their inclusion in an expanded "combined-wealth" concept results in lower estimates of wealth concentration (Jacobs et al. 2021). These additional resources also disproportionately boost the wealth of non-white families,

<sup>&</sup>lt;sup>28</sup> Ultimately the definition of "emergency resources" is somewhat arbitrary, as is the threshold below which a family is determined to be of "low wealth" status. We employ simple and transparent definitions and thresholds, but the basic patterns do not change when you modify the set of assets to be called upon in an emergency or alter the threshold. Nontrivial numbers of families of every race have low wealth levels, and the shares of Black and Hispanic families with low wealth are substantially greater than those of whites and Asians. Other researchers approach the question of emergency resources somewhat differently. The Federal Reserve Board's Survey of Household Economics and Decisionmaking, for example, includes a question that asks respondents if and how they would be able to pay for an emergency expense of \$400 (Board of Governors 2021). The SCF includes a question about whether respondents could get \$3,000 from family or friends in the event of an unexpected emergency. By contrast, the PEW Charitable Trusts (2015), in exploring the ability of households to meet financial emergencies, measures the share with liquid savings (checking, savings, cash, pre-paid cards) of less than \$2,000. It chooses this threshold based on the typical household's self-reported most expensive financial shock.

leading to substantially smaller estimates of disparities in wealth between white families and Black and Hispanic families.

Research exploring racial disparities in wealth is often concerned with identifying policies that can help promote asset building among lower-wealth racial minorities. This paper draws attention to the powerfully equalizing effects of policies that are already in place but typically not accounted for in analysis of racial disparities in wealth. Acknowledging the value of existing resources indicates an understanding that racial disparities in wealth are smaller than commonly believed, and that they are not rising over time.

We show that DB pensions play an important role in reducing gaps in wealth between average white and Black families. These pensions, commonly available to state and local government employees as well as federal workers, are perennially under pressure for having insufficient funding to meet the long-term needs of current and future retirees. The health of these systems is important for state and local government finance and the well-being of current and future public sector retirees. In this paper, we highlight the value of DB plans in achieving a further policy goal that has received greater attention in recent years, namely building wealth among non-white families.

We also show that including the asset value of Social Security results in very large reductions in wealth disparities between median white families and Black and Hispanic families. Many families, regardless of race, have relatively little market wealth. Social Security wealth (SSW) alone is larger than market wealth for one-half of white families and two-thirds of Black and Hispanic families. The equalizing role of SSW in bridging the racial wealth gap is one more reason to maintain the fiscal health of the Social Security program well into the future. It also raises the prospect of social insurance building resources for low-wealth racial minorities through other avenues.

For the purposes of understanding racial disparities, relying on market wealth—excluding the value of DB pensions and SSW—is in some respects comparable to analyzing poverty using income concepts that exclude taxes and transfers. Pre-tax/transfer income is a useful concept with many applications, but for understanding the level of consumption that households are able to achieve given existing social policies, it is inadequate and potentially misleading. Similarly, policymakers considering reforms aimed at helping households build wealth should take into account the full range of resources those families will have under existing policies. Arguably the most important reason for saving is to support consumption in retirement, and it is combined wealth that gives us a more complete picture of household resources.

Even combined wealth is somewhat incomplete on this count. Some households that we estimate to receive little or no SSW will in fact be eligible for Supplemental Security Income (SSI) or Social Security Disability Income (SSDI).<sup>29</sup> The flow of these resources represents a considerable value to recipients. Including the value of these programs is beyond the scope of this paper, and they function more like means-tested benefit programs than actual pensions. SSI is means tested, and both programs are conditional on disability status. They are, however, equalizing for the resources for households in retirement, as they are overwhelmingly concentrated on low-income, low-wealth households.

For some policy questions, of course, market wealth remains more well suited to the topic than combined wealth (Alvaredo et al. 2018). Access to emergency funds to help sustain a family during an economic shock, such as a pandemic, is a good example. And here, the data indicate that large numbers of families of all races have insufficient resources to weather an economic storm, including more than half of all Black and Hispanic families.

<sup>&</sup>lt;sup>29</sup> Non-white households are more likely to receive SSI and SSDI than white households. In 2019, among households with heads aged 40 to 59, SSDI was received by 10 percent of Black households, 9 percent of Hispanic households, and 6 percent of white households. Six percent of Black households received SSI, as did 2 percent of white households and 1 percent of Hispanic households (based on the authors' calculations from the SCF).

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## Figure 1. Trend in Mean Gaps in Projected Wealth, by Concept

#### 1A. White/Black Mean Wealth Gaps



#### 1B. White/Hispanic Mean Wealth Gaps



## Figure 2. Trend in Median Gaps in Projected Wealth, by Concept

### 2A. White/Black Median Wealth Gaps



2B. White/Hispanic Median Wealth Gaps



	Public Admin*	Teachers**	Federal Gov't	State & Local Gov't (excluding teachers)
All Workers	15.2	9.5	3.2	2.3
White	16.3	10.5	3.1	2.5
Black	17.8	9.2	5.3	3.0
Asian	10.2	6.3	2.9	0.9
Hispanic	10.9	6.8	2.3	1.7
Workers with a BA	18.3	11.1	4.2	2.7
White	18.0	11.4	3.7	2.7
Black	25.2	11.6	8.5	4.5
Asian	10.2	5.5	3.6	1.1
Hispanic	21.2	13.4	4.4	3.0

Table 1. Public Administration Employment Share (Workers aged 40 to 59) by Race andEducation (2018–2019)

Source: Authors' analysis of American Community Survey

\*Public Admin is the sum of Teachers, Federal Gov't and State & Local Gov't

\*\*Cannot determine whether a teacher works at a public school, this represents ALL teachers

Table 2.	Pension	Coverage	from Cur	rent Job (I	Families with	n Heads Aged	40 to 59), by
Race, Y	ear						

	Covered by a	a Defined Be	enefit Pension		Covered by a	Defined Co	ontribution Pe	nsion
	white	Black	Hispanic	Other	white	Black	Hispanic	Other
1989	46.1%	33.7%	26.6%	42.2%	39.0%	18.4%	23.4%	34.7%
1992	39.8%	28.8%	19.4%	29.0%	42.0%	27.7%	15.8%	23.3%
1995	28.3%	22.3%	23.4%	32.5%	42.8%	37.2%	28.1%	43.4%
1998	25.9%	15.4%	15.0%	20.5%	48.5%	35.5%	26.1%	51.4%
2001	27.1%	21.1%	21.1%	17.7%	49.9%	38.2%	34.7%	47.7%
2004	23.3%	20.5%	16.5%	13.0%	49.6%	35.7%	30.5%	39.8%
2007	25.0%	23.5%	15.7%	21.3%	51.0%	39.8%	32.1%	60.3%
2010	21.3%	19.7%	12.3%	8.3%	47.2%	31.7%	26.4%	45.2%
2013	17.9%	15.3%	8.8%	9.0%	50.5%	32.0%	24.0%	41.7%
2016	16.2%	13.9%	13.1%	14.8%	51.2%	32.0%	28.1%	48.6%
2019	17.7%	17.6%	11.7%	15.8%	50.4%	38.0%	24.5%	60.2%

Source: Authors' analysis of SCF.

	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016	2019
White Families											
Market wealth	502,860	493,643	521,104	600,931	766,448	817,787	843,966	779,175	744,017	987,366	1,015,442
Non-retirement wealth	436,736	411,212	421,485	488,606	607,310	661,354	676,974	603,477	570,189	774,785	791,519
DC wealth	66,124	82,431	99,619	112,325	159,137	156,433	166,991	175,698	173,829	212,581	223,923
DB wealth	210,101	275,992	266,973	303,287	336,837	315,265	328,884	317,647	312,167	314,633	326,759
DC+DB wealth	276,224	358,423	366,592	415,612	495,974	471,698	495,875	493,345	485,995	527,214	550,682
Nonret+DC+DB wealth	712,961	769,635	788,077	904,218	1,103,285	1,133,052	1,172,849	1,096,822	1,056,184	1,301,999	1,342,201
Net SS wealth	176,620	198,121	184,991	192,770	205,154	217,271	218,085	235,242	233,493	248,751	252,998
Combined wealth	889,634	967,756	972,513	1,097,952	1,308,439	1,350,323	1,390,934	1,332,065	1,289,678	1,550,750	1,595,199
- Combined per r,sp	511,564	566,772	564,138	638,502	744,597	773,467	825,574	758,541	744,135	891,546	913,901
- Trimmed, combined per r,sp	449,545	502,817	490,755	549,707	647,824	661,325	713,848	654,389	631,944	722,936	766,146
Black Families											
Market wealth	114,750	123,832	114,461	125,528	114,171	158,055	204,322	121,499	154,515	126,175	185,886
Non-retirement wealth	105,287	109,769	92,370	94,459	92,989	115,792	152,930	93,567	112,220	95,207	124,182
DC wealth	9,463	14,063	22,091	31,069	21,183	42,262	51,392	27,932	42,295	30,968	61,705
DB wealth	130,960	227,190	153,366	133,608	214,466	189,849	259,068	230,254	168,070	182,304	207,931
DC+DB wealth	140,423	241,253	175,456	164,676	235,649	232,112	310,461	258,186	210,365	213,272	269,636
Nonret+DC+DB wealth	245,710	351,021	267,827	259,136	328,638	347,904	463,390	351,753	322,585	308,479	393,818
Net SS wealth	75,536	104,972	112,570	102,001	109,114	116,764	135,475	128,064	122,415	135,694	130,231
Combined wealth	321,246	455,993	380,397	361,137	437,723	464,669	598,865	480,665	445,000	444,173	524,049
- Combined per r,sp	209,296	292,801	243,715	248,969	293,106	339,306	404,868	336,393	313,991	300,193	375,197
- Trimmed, combined per r,sp	185,479	275,189	231,456	235,026	267,848	309,596	373,110	322,537	278,377	272,456	330,558
Hispanic Families											
Market wealth	132,357	169,832	157,636	226,858	203,971	286,761	342,236	213,677	164,217	245,164	255,326
Non-retirement wealth	119,298	158,639	127,244	193,196	164,288	254,967	271,938	179,823	136,636	201,244	195,713
DC wealth	13,059	11,193	30,391	33,662	39,683	31,794	70,297	33,853	27,582	43,920	59,613
DB wealth	65,823	93,744	141,792	120,540	185,132	161,753	153,513	152,153	81,504	156,903	180,304
DC+DB wealth	78,882	104,937	172,183	154,203	224,815	193,548	223,811	186,006	109,086	200,824	239,917
Nonret+DC+DB wealth	198,180	263,576	299,428	347,398	389,103	448,515	495,749	365,829	245,722	402,067	435,630
Net SS wealth	124,234	152,651	153,958	152,689	149,195	143,756	163,795	152,443	166,630	163,001	173,232
Combined wealth	322,414	416,227	453,386	500,087	538,298	592,271	659,544	520,403	412,351	565,068	608,862
- Combined per r,sp	181,068	232,269	253,941	286,836	340,608	323,100	390,630	325,834	238,962	366,044	381,618
- Trimmed, combined per r,sp	177,136	216,508	241,147	255,133	312,328	269,663	343,162	285,332	213,992	328,795	346,395

Table 3. Mean Retirement Wealth, by Type and Year, Real 2019 Dollars—Projected Wealth

Note: Includes families with heads between age 40 and 59. "Combined per r, sp" divides combined wealth by the numbre of primary adults (respondent and spouse, if present). "Trimmed" drops the top and bottom one percent of the combined wealth distribution for each race before calculating the average.

	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016	2019
White Families											
Market wealth	187,455	174,604	173,522	186,367	231,917	242,095	237,376	181,336	171,992	200,349	212,870
Non-retirement wealth	168,798	144,493	144,341	141,859	173,132	175,003	165,579	131,751	116,964	136,557	145,780
DC wealth	3,912	5,158	6,594	10,116	17,758	14,591	23,597	15,054	20,339	29,658	20,670
DB wealth	9,263	16,071	0	0	0	0	0	0	0	0	0
DC+DB wealth	98,723	149,427	83,354	84,217	109,415	102,597	82,566	74,284	89,291	83,424	83,172
Nonret+DC+DB wealth	342,502	382,517	295,244	327,205	415,315	428,680	351,674	302,984	286,434	279,817	315,596
Net SS wealth	175,252	195,116	175,521	176,045	194,270	205,672	198,731	218,383	213,199	231,069	239,454
Combined wealth	522,728	607,468	515,310	562,080	655,443	659,557	599,188	574,780	556,248	552,712	596,167
- Combined per r,sp	314,818	356,787	312,343	331,251	383,261	412,738	371,762	335,153	329,293	340,268	359,147
<b>Black Families</b>											
Market wealth	28,328	31,833	38,735	33,438	36,074	38,026	38,120	24,771	20,059	25,984	36,921
Non-retirement wealth	26,336	28,960	38,269	29,833	33,047	33,745	34,559	22,827	18,917	23,170	32,548
DC wealth	0	0	0	0	0	0	0	0	0	0	0
DB wealth	0	0	0	0	0	0	0	0	0	0	0
DC+DB wealth	0	2,918	7,734	3,442	3,131	2,334	5,913	2,814	1,555	521	1,458
Nonret+DC+DB wealth	44,149	101,992	57,654	45,504	44,631	77,808	68,486	62,352	30,538	36,425	56,794
Net SS wealth	67,901	79,479	84,034	88,171	85,860	100,732	119,531	105,402	102,618	108,895	110,524
Combined wealth	149,345	208,185	211,283	154,261	168,929	203,026	221,423	218,387	175,147	194,872	196,738
- Combined per r,sp	113,440	143,268	134,247	133,178	113,586	155,580	159,962	155,450	139,036	140,177	168,231
Hispanic Families											
Market wealth	27,921	37,839	52,232	56,826	44,576	42,403	85,980	37,672	24,502	29,231	54,450
Non-retirement wealth	27,783	36,423	52,232	53,407	41,422	41,422	79,208	36,171	23,298	29,231	51,467
DC wealth	0	0	0	0	0	0	0	0	0	0	0
DB wealth	0	0	0	0	0	0	0	0	0	0	0
DC+DB wealth	1,322	0	4,144	1	1,344	0	0	0	0	0	0
Nonret+DC+DB wealth	45,264	46,249	116,596	74,488	57,247	102,291	119,726	77,091	49,850	63,620	107,949
Net SS wealth	102,810	152,803	135,403	125,955	135,747	128,181	163,268	139,596	153,566	141,829	155,780
Combined wealth	180,823	202,211	277,075	231,311	250,153	229,880	299,737	241,857	237,644	241,526	268,676
- Combined per r,sp	100,995	112,393	171,848	152,279	149,393	119,507	158,361	141,101	142,800	151,831	170,043

Table 4. Median Retirement Wealth, by Type and Year, Real 2019 Dollars—Projected Wealth

Note: Includes families with heads between age 40 and 59.

	1989	1992	1995	1998	2001	2004	2007	2010	2013	2016	2019
White Families											
Combined Wealth	529,668	611,148	519,575	560,023	652,196	670,028	604,472	579,160	556,956	555,986	595,774
Composition by type											
- Market non-retirement wealth	34%	26%	31%	34%	35%	37%	33%	32%	27%	29%	29%
- DC wealth	6%	6%	7%	10%	11%	17%	15%	11%	14%	14%	15%
- DB wealth	22%	32%	20%	13%	18%	12%	11%	10%	10%	5%	7%
- Net SSW	38%	36%	42%	42%	36%	34%	41%	47%	49%	51%	49%
Black Families											
Combined Wealth	161,783	203,960	210,983	161,597	166,690	204,536	230,126	214,282	178,557	196,872	199,296
Composition by type											
- Market non-retirement wealth	33%	31%	24%	28%	25%	24%	21%	27%	27%	26%	25%
- DC wealth	0%	1%	3%	4%	2%	3%	3%	4%	5%	3%	1%
- DB wealth	11%	22%	17%	14%	8%	2%	1%	4%	5%	1%	8%
- Net SSW	56%	46%	56%	54%	65%	70%	74%	65%	63%	70%	66%
Hispanic Families											
Combined Wealth	181,419	204,356	271,682	228,659	249,186	236,228	304,208	241,889	237,665	244,910	265,774
Composition by type											
- Market non-retirement wealth	25%	15%	20%	45%	26%	37%	26%	28%	32%	20%	30%
- DC wealth	0%	0%	4%	2%	1%	0%	2%	6%	2%	3%	4%
- DB wealth	7%	14%	11%	1%	10%	1%	6%	1%	0%	3%	1%
- Net SSW	68%	71%	64%	52%	63%	61%	66%	66%	66%	74%	65%

## Table 5. Composition of Typical Family Combined Wealth (45<sup>th</sup> to 55<sup>th</sup> Percentiles), by Race and Year, Real 2019 Dollars

Note: Composition of typical wealth uses familes between the 45th and 55th percentiles of the combined wealth distribution and calculates the mean for combined wealth and the four components: non-retirement market wealth, DC plans, DB plans, and SSW. Includes families with heads between age 40 and 59.

_												
	SS	SNW > M	arket Wealth	l*	C.	SSW is lar	gest asset**		]	Families w	ith No SSW	
=	white	Black	Hispanic	Other	white	Black	Hispanic	Other	white	Black	Hispanic	Other
1989	43.5%	57.9%	74.0%	55.5%	43.7%	50.5%	67.4%	31.4%	0.0%	0.0%	0.0%	0.0%
1992	52.2%	61.6%	78.9%	53.5%	46.8%	53.7%	66.8%	52.5%	0.0%	0.0%	0.0%	0.0%
1995	47.1%	70.5%	70.2%	61.8%	38.5%	58.5%	59.1%	46.2%	2.2%	2.4%	1.6%	0.0%
1998	45.7%	61.4%	62.2%	51.6%	38.4%	51.9%	53.4%	40.5%	1.9%	1.3%	2.6%	2.4%
2001	42.3%	63.5%	64.5%	52.4%	36.3%	50.2%	58.7%	33.2%	2.0%	0.0%	4.7%	0.0%
2004	42.5%	62.2%	59.6%	42.8%	30.9%	48.8%	49.2%	33.3%	2.0%	2.5%	1.9%	0.0%
2007	43.1%	63.7%	57.2%	37.5%	33.5%	49.8%	52.6%	33.9%	1.4%	3.7%	0.0%	1.9%
2010	50.5%	66.4%	68.2%	48.8%	40.1%	52.9%	59.0%	30.9%	1.1%	3.1%	2.5%	0.0%
2013	51.1%	71.0%	71.2%	46.5%	42.4%	55.1%	64.6%	30.6%	1.5%	1.9%	1.3%	0.0%
2016	49.3%	68.5%	69.0%	45.6%	42.1%	58.2%	61.2%	25.9%	1.5%	2.3%	1.6%	0.0%
2019	51.3%	67.7%	67.9%	39.7%	41.5%	54.8%	57.3%	17.8%	1.5%	2.8%	0.4%	0.0%

 Table 6. Reliance on Social Security (Among Families with Heads Aged 40 to 59)

\* Only includes households with positive predicted SSW. SSW compared to projected market wealth.

\*\* Other asset types are clustered into four groupings: real estate, retirement accounts, DB pensions, and businesses.

		Μ	ean	Me	dian
		2010/13	2016/19	2010/13	2016/19
Market Wealth Projected	Asian	917.647	1.230.644	310.913	354,585
	Black	131.615	145.412	20.805	22.320
	Hispanic	171.959	225.653	32,379	44,462
	white	721,488	927,194	164,538	188,706
DB Wealth Projected	Asian	134,508	257,316	0	0
	Black	182,484	180,963	0	0
	Hispanic	113,769	168,070	0	0
	white	301,921	314,332	0	0
		222.007	245 026	207.2.40	010.004
Net Social Security Wealth Projected	Asian	232,887	247,026	207,249	218,384
	Black	110,941	120,847	86,587	100,385
	Hispanic	129,141	150,327	110,215	126,053
	white	211,799	230,175	176,166	194,961
Combined Projected Wealth	Asian	1 285 041	1 734 986	696 716	806 241
Combilied, 1 Tojected Weakin	Black	1,205,041	1,754,980	165 614	176 816
	Hispanic	415 679	544 051	194.064	222 780
	white	1,235,208	1,471,701	522,455	538,719
Combined Wealth Per Primary Adult	Asian	723,927	974,590	368,923	480,971
	Black	297,855	307,373	133,538	134,435
	Hispanic	250,473	344,169	115,858	140,108
	white	706,195	840,181	312,474	333,648
Trimmed, Combined Wealth Per Primary Adult	Asian	636,653	844,781		
	Black	269,785	274,901		
	Hispanic	217,599	294,531		
	white	606,056	690,424		

## Table 7. Wealth, by Type and Year, including Results for Asian Families, Real 2019Dollars—Projected Wealth

Note: Includes families with heads between ages 30 and 62. Combined wealth adds projected DB and Social Security Wealth to projected net worth

		Market	Retirement Wealth (DC +	Market Wealth +	Combined
<u> </u>	1.		DB + SSW	0.75	
Gini	white	0.79	0.61	0.75	0.67
	Black	0.75	0.65	0.78	0.64
	Hispanic	0.76	0.65	0.78	0.64
	Asian	0.71	0.57	0.68	0.61
90/50 Ratio	white	9.1	5.9	9.4	5.8
	Black	11.5	6.5	18.4	6.0
	Hispanic	7.3	5.6	11.2	5.5
	Asian	7.1	5.4	5.5	4.5
10/50 ratio	white	0.08	0.20	0.06	0.21
	Black	0.29	0.26	0.17	0.28
	Hispanic	0.22	0.29	0.15	0.29
	Asian	0.05	0.20	0.03	0.18
Top 5% Share	white	0.57	0.29	0.47	0.41
ł	Black	0.51	0.40	0.48	0.38
	Hispanic	0.53	0.40	0.50	0.39
	Asian	0.44	0.24	0.37	0.33

## Table 8. Within-Race Wealth Distribution Measures, by Race, Wealth Concept, and Distribution Statistic for 2016/19

\* Market wealth is projected to age 62.

Source: Author's analysis of SCF for families with heads between ages 30 and 62.

#### Table 9. Families with Low Wealth, by Race, Wealth Concept and Year

	white	Black	Hispanic	Asian
2010/13	33.5%	67.4%	63.1%	29.7%
2016/19	28.7%	63.5%	54.4%	21.3%

Panel A. Share with market wealth (NOT projected) less than \$50,000

Panel B. Share with "emergency" assets less than \$10,000

2010/13	28.0%	54.8%	64.7%	18.2%
2016/19	25.5%	52.5%	58.1%	18.0%

Source: Authors analysis of Survey of Consumer Finances Note: Emergency assets include total assets excluding the value of housing and vehicles. Calculated for household heads age 30-62.

#### Appendix A. Predicting Lifetime Earnings and Social Security Benefits for Immigrants

One potential concern regarding the methodology of Jacobs et al. (2021) for estimating earnings histories using past-job information from the Survey of Consumer Finance (SCF), particularly when it concerns racial disparities, is that for immigrants we are uncertain whether reported previous work was carried out in the United States and is thus actually eligible in determining Social Security benefits. This is a greater concern in estimating combined wealth for Hispanic and Asian families than either Black or white families, but, for a variety of reasons, the actual impact on predicted Social Security wealth (SSW) of any group is quite small.

We use the Current Population Survey's Annual Social and Economic Supplement (CPS) to estimate the prevalence of immigrants within each racial group who either should be ineligible for any Social Security benefits or should expect to see smaller benefits—based on the number of quarters of eligible employment—than we estimate in the SCF. For this exercise, we use the CPS to calculate the number of potential years of eligible work, which is the sum of the survey year less the year of immigration and 65 less current age. We calculate this variable for household heads aged 40 to 59 with some recent labor force participation (defined as either currently employed, unemployed but worked in the last 12 months, or not in the labor force but worked in the last 12 months). Immigrants from any of the 25 counties that have "totalizing arrangements" with the United States, where eligible work history, payroll taxes paid, and future benefits are transferable across national pension systems, are considered fully eligible here.<sup>30</sup>

We find that less than 0.3 percent of immigrants of any race (in the 2018–2020 period) had fewer than 10 years of potential work in the United States and would thus be ineligible for any benefits (Table A1, Panel B). A distinctly larger group had 10 to 35 years of potential work in the United States. If an immigrant with fewer than 35 years of work in this country reports a longest past job in the SCF that was conducted in a foreign country, we would incorrectly be including those earnings in the Social Security benefit formula. From 30 to 42 percent of immigrants from each racial group had 10 to 35 potential years of work (Panel C). When we multiply by the immigrant share of each racial group (Panel A), we estimate that we potentially give too many years of eligible earnings to as many as 1 percent of white families, 7 percent of Black families, 17 percent of Hispanic families, and 27 percent of Asian families (Panel D).

Most immigrants with insufficient work history to be eligible for full Social Security benefits, however, have a relatively small number of years that would mistakenly be considered eligible in our analysis in the SCF. Among immigrants with 10 to 35 year of potential work, the average number of potential years is 28 for each racial group (Panel E). And, for the average earnings of

<sup>&</sup>lt;sup>30</sup> See www.irs.gov/government-entities/federal-state-local-governments/totalization-agreements.

these immigrants, the shift from 35 to 28 years of work, by zeroing out the first 7 years in the earnings calculation, reduces the Social Security benefit by only 10 percent.<sup>31</sup> At lower earnings levels, the benefit reduction is even smaller. Combining the average benefit reduction with the share of each racial group with potentially overestimated benefits (Panel D), we calculate that we overestimate average benefits in 2019 by 2 percent for Asian families and by 1 percent among Hispanic families (Panel F). In earlier periods, our overestimation is modestly higher, hitting 4 percent among Asians and 2 percent among Hispanics in 1995. On average, the potential overestimation of SSW in the SCF due to immigration is quite small, and it is becoming smaller over time.

<sup>&</sup>lt;sup>31</sup> Average annual earnings for immigrants (heads of household aged 40 to 59 from a country not participating in the totalization agreement) in the 2018–2020 period was \$98,000 for white families, \$84,000 for Asians, \$50,000 for Blacks, and \$44,000 for Hispanics. Earnings at the 25<sup>th</sup> percentile of the distribution were \$35,000 for whites, \$30,000 for Asians, \$25,000 for Blacks, and \$21,000 for Hispanics. For the purposes of creating a full earnings history for Social Security benefits calculation, we decreased these nominal earning 3 percent annually back to the beginning of a hypothetical 35-year work history and raised them 3 percent annually forward to the end of a hypothetical 35-year earnings history with the first seven years replaced with zero earnings. The range across the four racial groups for both earnings levels was truncated, resulting in Social Security benefits from 89 to 92 percent of the level of benefits from the full 35-year earnings history.

Table A1. Immigration Status, Potential Years of Work, and Extent of Overstating Social Security Estimates: Analysis of CPS ASEC for household heads ages 40-59, by selected year\* and race.

A. Immigrant	t share of Po	pulation**							
	1995	1998	2001	2004	2007	2010	2013	2016	2019
White	2%	2%	2%	2%	2%	2%	2%	2%	3%
Black	7%	8%	10%	11%	11%	12%	14%	15%	16%
Hispanic	51%	49%	51%	54%	56%	57%	56%	57%	58%
Asian	69%	71%	70%	69%	76%	78%	78%	76%	75%
B. Share of ir	nmigrants w	ith less thar	10 years of	potentially	eligible worl	k (Year - Yea	r Immigrate	d + Years til (	65)***
	1995	1998	2001	2004	2007	2010	2013	2016	2019
White	0.2%	0.8%	1.1%	0.7%	0.2%	0.0%	0.3%	0.3%	0.0%
Black	0.0%	0.7%	1.0%	0.3%	0.8%	0.3%	0.4%	0.1%	0.1%
Hispanic	0.2%	0.3%	0.3%	0.1%	0.2%	0.1%	0.2%	0.2%	0.3%
Asian	0.4%	0.4%	0.4%	0.2%	0.3%	0.2%	0.1%	0.0%	0.1%
C. Share of ir	nmigrants w	ith betweer	n 10 and 35 y	ears of pote	ntially eligib	le work***			
	1995	1998	2001	2004	2007	2010	2013	2016	2019
White	49%	48%	51%	52%	47%	42%	44%	39%	40%
Black	55%	53%	51%	45%	42%	47%	49%	43%	42%
Hispanic	42%	38%	37%	35%	35%	34%	31%	31%	30%
Asian	57%	50%	46%	49%	45%	42%	40%	36%	36%
D. Share of P	opulation w	ith Potentia	lly overestin	nated SSW (	immigrant s	hare * share	with potent	ially eligible	e years of
D. Share of P work betwee	opulation w en 10-35)	ith Potentia	lly overestin	nated SSW (	immigrant s	hare * share	with potent	ially eligible	e years of
D. Share of P work betwee	opulation w en <b>10-35)</b> 1995	<b>ith Potentia</b> 1998	Ily overestin	nated SSW ( 2004	immigrant s	hare * share 2010	with potent	ially eligible	e years of 2019
D. Share of P work betwee White	Population w en <b>10-35)</b> 1995 0.01	<b>ith Potentia</b> 1998 0.01	lly overestin 2001 0.01	nated SSW ( 2004 0.01	immigrant s 2007 0.01	hare * share 2010 0.01	with potent 2013 0.01	ially eligible 2016 0.01	e years of 2019 0.01
D. Share of P work betwee White Black	<b>Population w</b> en <b>10-35)</b> 1995 0.01 0.04	ith Potentia 1998 0.01 0.04	11y overestin 2001 0.01 0.05	nated SSW ( 2004 0.01 0.05	immigrant s 2007 0.01 0.05	hare * share 2010 0.01 0.06	with potent 2013 0.01 0.07	ially eligible 2016 0.01 0.06	2019 0.01 0.07
D. Share of P work betwee White Black Hispanic	20pulation w en 10-35) 1995 0.01 0.04 0.21	ith Potentia 1998 0.01 0.04 0.19	2001 0.01 0.05 0.19	nated SSW ( 2004 0.01 0.05 0.19	immigrant s 2007 0.01 0.05 0.19	hare * share 2010 0.01 0.06 0.20	with potent 2013 0.01 0.07 0.17	ially eligible 2016 0.01 0.06 0.18	2019 0.01 0.07 0.17
D. Share of P work between White Black Hispanic Asian	Population w en 10-35) 1995 0.01 0.04 0.21 0.39	ith Potentia 1998 0.01 0.04 0.19 0.36	2001 0.01 0.05 0.19 0.32	nated SSW ( 2004 0.01 0.05 0.19 0.34	2007 0.01 0.05 0.19 0.34	hare * share 2010 0.01 0.06 0.20 0.32	with potent 2013 0.01 0.07 0.17 0.31	ially eligible 2016 0.01 0.06 0.18 0.28	2019 0.01 0.07 0.17 0.27
D. Share of P work between White Black Hispanic Asian	Population w en 10-35) 1995 0.01 0.04 0.21 0.39	ith Potentia 1998 0.01 0.04 0.19 0.36	2001 0.01 0.05 0.19 0.32	nated SSW ( 2004 0.01 0.05 0.19 0.34	immigrant s 2007 0.01 0.05 0.19 0.34	hare * share 2010 0.01 0.06 0.20 0.32	with potent 2013 0.01 0.07 0.17 0.31	ially eligible 2016 0.01 0.06 0.18 0.28	2019 0.01 0.07 0.17 0.27
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\*Years are 3-years combiend centered around SCF survey years (e.g. 1995=1994-1996).

\*\*Exlcuding those that immigrated from a country with a totalization agreement.

\*\*\* Restricted to individuals who are either currently employed, or if unemployed/NILF had some employment in the last year

\*\*\*\* The over-estimating of SSW is the product of two factors: 1) the share of the population which has insufficient years of potential work to receive full Social Security benfits due to age and year of arrival in the United States (Panel D), and 2) the predicted reduction in average benefits based on years of work and earnings. This second factor is calcualted using Social Security program rules for average covered earnings for immigrants (measured in CPS AEC) and comparing benefits based on a hypothetical 35-year workign period versus a 28-year working period (Panel E). Earnings vary by race, and both mean and median were used in this exercise. The level of earnings and the progressive benefit rules imply that the seven-year difference in potential years of covered employment results in a 10 percent reduction in Social Security benefits. This difference multiplied by the share of the population with potentially over-estiamted benfits (Panel D) is what is reported in Panel F.

Source: Authors Analysis of CPS ASEC.