

Racial and Ethnic Disparities in Retirement Outcomes: Impacts of Outreach*

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Abstract

We review select literature on racial and ethnic disparities in retirement outcomes and the impact of outreach on such outcomes. First, there are significant disparities in retirement outcomes, reflecting a long history of racism and structural barriers. Second, there is comparatively little work on the differential impact of retirement outreach across race and ethnicity. Future work should consider designing interventions that cater to the needs of specific demographic groups, for example, by embracing the fact that Blacks, Hispanics, and Whites acquire retirement information from different sources. Future work should also innovate on methodologies for data collection, linking, and analysis.

JEL Codes: J26, J32, J15, Z13, D83

Keywords: retirement outcomes, retirement planning, outreach, race, ethnicity.

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1 Introduction

All workers must retire at some point. So, preparing for retirement is key to a household’s financial decision-making (e.g., Gomes et al., 2021). Yet, significant racial and ethnic disparities exist in retirement outcomes. Figure 1 compares average retirement wealth across Black, Hispanic, White, and Other Americans who are 55 to 64 years old, i.e., close to retirement. Retirement wealth for Whites and Others has improved over time, but that is not the case for Blacks and Hispanics.¹

Figure 1 here

Seventy two percent of Americans expect older adults to be less prepared financially for retirement in 2050 than they are today (Pew Research Center, 2019). On average, more than 50 million Americans received retirement benefits from the Social Security Administration in 2021 (SSA Fact Sheet). Without social security, a typical White household has five to seven times the wealth of a minority household, but adding in social security reduces the gap to two to three (Hou and Sanzenbacher, 2020b).² Because social security covers nearly all workers and has a progressive benefit design, it has been described as a great equalizer.

Racial and ethnic disparities in retirement outcomes can be attributed to several structural factors. For example, Francis and Weller (2021) discuss the role of (1) employment discrimination, occupational segregation, and low-paying jobs (also see Flippen and Tienda, 2000; Kim et al., 2005; Butrica and Johnson, 2010; Calvo et al., 2017; Button et al., 2022), (2) limited intergenerational wealth transfers, (3) limited home equity and home ownership due to lending market discrimination (also see Kim et al., 2021), and (4) drains on savings due to adverse health outcomes (also see Alexander and Currie, 2017; Berger et al., 2022), limited access to health insurance, and calls to financially support friends and family (e.g., Francis and Weller, 2022). Partly driven by such deeply rooted factors, White et al. (2021) find that Black and Hispanic households seem to have the lowest rates of financial discussions (also see Carman and Williams, 2022), potentially exacerbating already existing racial and ethnic wealth disparities.

This article reviews some of the literature on (1) racial and ethnic disparities in retirement outcomes and (2) the potential for outreach and service delivery, for example, by the Social Security Administration and employers, to address such disparities.³ First, we synthesize racial and ethnic disparities in a range of outcomes, including retirement knowledge and subjective feelings; financial literacy; retirement planning and preparedness behavior; expectations; and retirement age, security, and wealth.⁴ Typically, we first present com-

¹Viceisza (2022) and the references within discuss Black women’s retirement preparedness and wealth.

²Also see Hendley and Bilimoria (1999); Costa (2008); Dal Borgo (2019).

³We do not discuss the extensive literature on the racial and ethnic wealth gap and policies for addressing it. Among others, see Spriggs (1984), Bayer and Charles (2018), Hanks et al. (2018), Darity Jr. and Mullen (2020), Zewde (2020), Darity et al. (2022), Deroncourt et al. (2022), Hudson and Young (2022), and Palladino (2022).

⁴In a life-cycle model of labor supply, the act of retirement is a plan that allocates time between work and leisure over the remaining lifetime (e.g., Mitchell and Fields, 1984; Gustman and Steinmeier, 1986a,b; Leonasio, 1996; Bloom et al., 2007; Blundell et al., 2016). Retirement preparedness behavior is implicit to such a model because it impacts how much to work (e.g., whether to continue working and/or delay claiming benefits), save (e.g., pensions and individual accounts), and invest in assets (e.g., housing).

parisons across all racial and ethnic groups, followed by findings for specific demographic groups one by one. Second, we summarize what is known about racial and ethnic disparities in acquiring retirement information, preferred outreach, and potential impacts of outreach. Third, in an effort to inform future interventions, we synthesize select design details of past outreach efforts by extracting insights from behavioral science, peer effects, and cultural factors. Finally, we conclude with potential avenues for future work.

2 Methodological Approach

Our approach is based on (1) reviewing select literature and (2) supplementing the findings with summary statistics from the Survey of Consumer Finances and the Understanding America Study.

To conduct the review, we establish keywords such as retirement preparedness, retirement planning, outreach, communication, race, ethnicity, American Indian, Asian, Black, Hispanic, White, immigrant, and financial literacy. We then search the following sources for combinations of such keywords in the last 40 years (with greater emphasis on the last 5-10 years): (A) general-interest journals in economics (e.g., *American Economic Review*, *Economic Inquiry*, and *Review of Black Political Economy*), (B) field journals in economics (e.g., *Journal of Labor Economics* and *Journal of Pension Economics and Finance*), (C) select other journals (e.g., *The Gerontologist*, *Research on Aging*, and *Work, Aging and Retirement*), (D) select databases such as the NBER working paper series and Social Science Research Network, and (E) sites of the SSA-funded Retirement and Disability Research Consortium. Finally, we conduct backward citation searches for the resulting papers and use Google Scholar to perform forward citation searches.

3 Disparities in Retirement Outcomes

3.1 Retirement Knowledge and Subjective Feelings

Yoong et al. (2015) find that only a small proportion of Americans feel very financially prepared for retirement. They also report that Blacks and Hispanics feel significantly less prepared for retirement than Whites and fare worse in terms of their knowledge of retirement planning and social security benefits. Table 1 recapitulates some of their findings.

Table 1 here

Kim and Hanna (2015) find that Blacks, Hispanics, and Asian/Others combined are significantly less realistic than Whites in terms of how they perceive their retirement preparedness, i.e., minorities' subjective assessment of retirement adequacy is more likely to diverge from an objective assessment of their retirement adequacy than Whites. Households that have defined contribution plans are less realistic than those without such plans (58 percent versus 43 percent) and realism decreases with age.

Young et al. (2017) find that among a sample of alumni, professors, and business professionals associated with a Historically Black College and University, only 40 percent have

started the retirement process. Those who are more financially literate are more likely to be ready for retirement, suggesting that education and financial knowledge are not the same.

Peterson et al. (2019) find that Hispanics' self-assessed knowledge of retirement-related financial issues is significantly lower than that of Whites. Hispanics feel less knowledgeable about how inflation affects retirement, how much to save for retirement, their longevity in retirement, how to invest their retirement money, and how to manage their spending in retirement.

3.2 Financial Literacy

Angrisani et al. (2021) investigate the determinants of the racial and ethnic gap in financial literacy in the general population and within income classes, with a focus on childhood family circumstances and neighborhood socioeconomic characteristics.⁵ For both Blacks and Hispanics, differences in individual characteristics and neighborhood socioeconomic status contribute the most to the explained gap. The Minority-White gap narrows when moving from low- to high-income classes, but the ability of the model to explain it decreases monotonically.

Yakoboski et al. (2020) find that personal finance knowledge among Blacks is low and lags that of Whites. Further, such knowledge varies across demographic groups within the Black population, with greater financial literacy among men, older individuals, those with more formal education, and those with higher incomes. Those who are more financially literate are more likely to plan and save for retirement and to have non-retirement savings.

Yates (2019) finds that financial education socialization varies by race, gender, and socioeconomic status. There are higher levels of financial literacy in those who have been exposed to financial education and those with higher levels of financial literacy are more financially stable. They also find that lack of exposure to financial education has a negative impact on financial literacy that is more severe than the positive impact of financial education.

Lusardi and Mitchell (2011a) and Lusardi and Mitchell (2011b) find that Blacks and Hispanics tend to score substantially worse than Whites on financial literacy. The financially savvy are more likely to plan for retirement, succeed in their planning, and rely on formal methods such as retirement calculators, retirement seminars, and financial experts, instead of family or co-workers.

Sun et al. (2007) document that financial illiteracy is widespread and systematic throughout the population but is of particular concern for Hispanics. They argue that improving Hispanics' financial literacy will have a greater impact on retirement planning than for other populations, particularly since Hispanics are less likely to have a retirement plan, but those who do have plans stick to them. Hispanics' preferred methods of investment learning are individual and informal.

Murphy et al. (2014) find that although American Indian and Alaska Natives fare worse than all other racial and ethnic groups on financial literacy, there is no clear pattern of

⁵Hamilton and Darity Jr. (2017) examine the mismatch between the political discourse around individual agency, education, and financial literacy, and the actual racial wealth gap. They argue that the racial wealth gap is rooted in socioeconomic and political structure barriers rather than a disdain for or underachievement in education or financial literacy on the part of Black Americans, as might be suggested by conventional wisdom.

deficiency within the group. They perform poorly on a broad range of topics, so to begin to close the financial literacy gap, they may benefit from financial education on a range of topics, including investing and saving.

3.3 Retirement Planning and Preparedness Behavior

Copeland (2021) finds that families with minority heads have much lower assets in their individual account retirement plans, thus giving them much less flexibility in financing retirement (also see Ariel/Hewitt, 2009, 2012).⁶

Bhutta et al. (2020) find that ownership of individual retirement accounts and defined contribution (DC) plans rises among middle-aged families and then falls among older families. In all age groups, Blacks and Hispanics are far less likely to have such retirement accounts. For example, among middle-aged families – who have the highest rates of account ownership – 65 percent of Whites have at least one retirement account, compared to 44 percent of Blacks, and 28 percent of Hispanics.

Tamborini and Kim (2019) find that Blacks and Hispanics have lower participation and contributions in employer-sponsored DC retirement plans than do Whites, while Asians have higher levels. The bulk of the racial and ethnic differences is attributed to socioeconomic position, especially education and labor market circumstances like earnings. Differentials are also associated with family circumstances, specifically for Black workers. After accounting for education, labor market, and family covariates, social-psychological factors appear to explain only small portions of the racial and ethnic differences, specifically for Blacks and Hispanics.

Rhee (2013) finds that workers of color, in particular Hispanics, are significantly less likely than Whites to be covered by an employer-sponsored retirement plan – whether a 401(k) or defined benefit pension.⁷ Households of color are far less likely to have dedicated retirement savings than White households of the same age. They also have substantially lower retirement savings, even after controlling for age and income.

Kim et al. (2021) find that Whites are more likely to hold a retirement saving motive than other racial and ethnic groups. Decomposition analysis shows that homeownership, objective financial knowledge, planning horizon, and age are the most important determinants that explain the racial and ethnic gap in holding a retirement saving motive.

Choudhury (2002) finds a disinclination on the part of minority households to invest in riskier, higher-yielding financial assets and argues that this could account for some of the racial and ethnic wealth disparities that cannot be explained by income and demographic factors.

Aka and Oku (2017) argue that in order to close the gap in retirement wealth, Blacks need to invest more in the stock market (also see Yoong et al., 2019, who find that Black and Hispanic workers invest a smaller proportion of their plan in stock). They explore

⁶Individual account plans include (1) employment-based retirement savings plans financed by both employer and employee contributions (most notably, defined contribution plans such as 401(k) plans), (2) Keogh plans for the self-employed, and (3) individual retirement accounts (IRAs) for savings typically outside of the workplace.

⁷Angel et al. (2014) find that women are less likely to participate in employer-sponsored retirement plans and being a minority compounds this disadvantage, with Mexican-origin having the lowest coverage.

four reasons for why Black participation in the stock market lags behind the rate of White participation: (1) a perception that investing in the stock market may be too risky, (2) fear of Wall Street, (3) lack of sufficient funds to facilitate participation in the stock market, and (4) the perception that participation in the stock market may be too complicated for ordinary people. They conclude that a key challenge for public policy is to remove or minimize limitations for Blacks to participate in workplace retirement plans, as these constitute a viable avenue for stock market participation.

Blanco et al. (2017) find that middle-aged and older low-income Hispanics in Los Angeles help their parents financially, but do not feel comfortable asking their own children for help. They plan to keep working for as long as possible and place their survival in retirement “in God’s hands.”

Fry et al. (2005) find that social security is likely to continue to be a key source of income for older Hispanics in the future. Hispanic workers are the least likely of the principal racial and ethnic groups to participate in an employment-based retirement plan or own any long-term financial asset. They also report that 49 percent of all Hispanics favor a plan that would allow wage earners to put some of their social security taxes in investment accounts.

3.4 Expectations

Honig (1996) finds that expected retirement functions, estimated separately for non-Hispanic Black, non-Hispanic White, and Hispanic men and women, appear to have been generated by the same underlying behavioral model that has been found to explain retirement outcomes.

While subsequent work has extended the literature on expectations and retirement behavior generally (e.g., Chan and Stevens, 2004; McGarry, 2004; Haider and Stephens, 2007; Shu and Payne, 2013; Greenberg et al., 2017; Turner and Rajnes, 2021), less attention seems to have been paid to racial and ethnic disparities.⁸ That said, some work has looked at other demographic differences. For example, Prados and Kapteyn (2019) find that men and those with low levels of uncertainty about retirement benefits are less likely to overestimate their future retirement benefits. Thus, they are more likely to save more and be better prepared as they reach retirement. Biases in subjective expectations translate into suboptimal asset accumulation and welfare losses.

3.5 Retirement Age, Security, and Wealth

Copeland and Greenwald (2021) find that 46 percent of all retirees retired earlier than expected; however, the primary reason differs by race and ethnicity. Blacks do so because they have a health problem or disability while Whites do so because they can afford to. Hispanics rank these two reasons equally. Blacks and Hispanics also report disproportionately

⁸A practical exception is Cohen et al. (2017) who find that among a sample of persons aged 18-34 in 2017, most did not have confidence in the future of social security (SS). Seventy three percent of Blacks lacked confidence and 29 percent did not expect to receive any SS benefits. Sixty six percent of Hispanics lacked confidence and 32 percent did not expect to receive any SS benefits. Seventy three percent of Asians lacked confidence and like Hispanics, 32 percent did not expect to receive any SS benefits. Seventy seven percent of Whites lacked confidence and 37 percent did not expect to receive any SS benefits.

lower financial resources than Whites, thus impacting how they feel about retirement and financial security.⁹

Munnell et al. (2018) find that in 2016 Whites had the lowest retirement risk, followed by Blacks and then Hispanics. The pattern over time is somewhat surprising, with the situation of Blacks holding relatively steady and that of Hispanics deteriorating sharply. The data suggest that the deterioration for Hispanics reflects their buying housing in the wrong place at the wrong time. The steadiness for Blacks is a function of falling earnings at the bottom of the income distribution and social security's progressive benefit formula.

Johnson et al. (2016) find that Hispanics employed full-time earn significantly less than their non-Hispanic White counterparts and are less likely to be covered by an employer-sponsored retirement plan. Older Hispanics receive much less income, hold much less wealth, and are much more likely to be impoverished than older non-Hispanic Whites. Older US-born Hispanics fare better than older non-Hispanic Blacks, whereas older foreign-born Hispanics fare worse.

Hou and Sanzenbacher (2020a) find that in 2016 Blacks had 46 percent of the retirement wealth of Whites, while Hispanics had 49 percent. This inequality would be much higher but for the presence of social security – Blacks had just 14 percent of the non-social security retirement wealth when compared to Whites, and Hispanics had just 20 percent (also see Gustman and Steinmeier, 2004; Aguila and Lee, 2022; Choukhmane et al., 2022).

4 What Do We Know about Information Acquisition and Impacts of Outreach?

Communication about finances is essential to the acquisition of financial skills, particularly for retirement planning. Yet, racial and ethnic disparities exist in financial discussions and outreach. For example, White et al. (2021) find that Black and Hispanic households tend to have the lowest rates of financial discussions, and when discussions do occur, they are more likely to happen with friends than with spouses/partners or family.

So, there is potential to impact the general public's, specifically minorities', information sets through outreach initiatives. For example, Brown et al. (2020) find that social security policy and the way it is communicated strongly influences work, retirement, and claiming behavior (also see Alattar et al., 2019, who find that younger workers with lower levels of education and financial literacy are logical targets for informational outreach and interventions by the Social Security Administration). Yet, Vitt and Smith (2022) find that the level of social security information currently being provided to the public is less than adequate, and crucial information could be made available by employers, the military, religious and community groups, and schools at the secondary and postsecondary levels.

⁹These findings vary with whether a worker is foreign-born or not. As expected, several studies find that immigrants retire significantly later than US-born workers, partly due to retirement insecurity (e.g., Fontes, 2011; Sevak and Schmidt, 2014; Love and Schmidt, 2015; Torres et al., 2016; Johnson et al., 2017; Lopez and Slavov, 2020). Moreover, immigrants' retirement behavior is impacted by eligibility criteria and return motives (e.g., Borjas, 2010; Burtless and Singer, 2011; Aguila et al., 2021).

4.1 Racial and Ethnic Disparities in Preferred Information Sources and Outreach

Carman and Williams (2022) find that all racial and ethnic groups consistently turn to pre-existing social capital, in the form of family and friends, for social security information (also see Carman and Hung, 2018; Knapp and Perez-Arce, 2022). Compared to other groups, Blacks are more likely to turn to social services, religious organizations, senior centers, medical care providers, and libraries; Asians are more likely to turn to employers, co-workers, community organizations, medical care providers, the internet, and social media; and Whites are more likely to turn to employers and financial advisors. Hispanics tend towards the middle of all racial and ethnic groups.

Rabinovich and Yoong (2016) find considerable latitude for the Social Security Administration to expand its role as a source of retirement information. When people are asked how they currently acquire information about retirement planning, they list the following main sources. Nineteen percent of Blacks indicate family, friends, and/or colleagues relative to 29.9 percent of Hispanics and 35.2 percent of Whites. Twenty percent of Blacks list employers relative to 33.5 percent of Hispanics and 36.8 percent of Whites. Thirteen percent of Blacks mention financial professionals relative to 14.6 percent of Hispanics and 24.5 percent of Whites. Two percent of Blacks list Social Security Administration information mailed to their home relative to 5.7 percent of Hispanics and 9.6 percent of Whites. Finally, 58.1 percent of Blacks list none of the sources relative to 47.7 percent of Hispanics and 36.5 percent of Whites.

Figures 2 and 3 break down preferences for future information delivery by race and ethnicity across non-retired and retired respondents respectively, based on the Understanding America Study wave 26 (the same data used by Rabinovich and Yoong, 2016).¹⁰ In order to keep the figures manageable, only Black, Hispanic, and White respondents are included.

We start with Figure 2 for non-retired respondents. First, while preferences for future information delivery are similar across racial and ethnic groups, the levels are quite different, specifically across Blacks and Hispanics on the one hand and Whites on the other hand. Whites seem to consistently find future sources of information less useful than Blacks and Hispanics. Second, there are some more subtle differences, for example, Whites rank YouTube/web tutorials as the third highest source while Blacks and Hispanics list information provided via Social Security Administration representatives as the third highest source.

Figure 2 here

Figure 3 (for retirees) shows some more dramatic differences. For example, Hispanics seem to find public service announcements via TV, radio, and social media more useful than Blacks and Whites, who seem to find Social Security Administration information (i.e., the first two bars) more useful than all other sources. Relative to non-retirees, retirees seem to be much more averse to web-based approaches, i.e., YouTube/web tutorials and

¹⁰The verbatim Understanding America Study question is “Now, thinking only about the future, please tell us how useful you would find the following sources of information about Social Security benefits.” For each of the sources on the horizontal axis, the respondent indicates 1=very useful, 2=somewhat useful, 3=not very useful, 4=not useful at all. The raw frequencies in the figures are for respondents who indicated either 1 (very useful) or 2 (somewhat useful).

SSA smartphone app. This appears to be consistent with findings on how people claim benefits. For example, Aubry and Wandrei (2021) find that about 60 percent of respondents submit (or intend to submit) their Old Age, Survivors, and Disability Insurance benefit application online, but only 43 percent claim (or intend to claim) benefits completely online, that is, without interacting with a Social Security Administration representative by phone or in-person during the process. In fact, their results show that the characteristics most associated with not claiming completely online are being Black and/or Hispanic. This holds both for retirees and near-retirees.

Figure 3 here

Hudson et al. (2017) find that the top three financial influences for Blacks are parents (58.3 percent), life experiences (23.9 percent), and formal influences (8.3 percent). Furthermore, those who were financially socialized by self-directed influences (i.e., books, media, and internet) were more likely to be more financially knowledgeable than those who were financially socialized by other informal influences (i.e., friends, church, and informal public/classes).

Rabinovich et al. (2017) find that all Hispanic subgroups (in particular, those of Mexican, Puerto Rican, and Cuban ancestries) prefer email, regular mail, and the Social Security Administration website, that is, typical information sources. However, the content of the information provided might need to be changed, or the emphasis adjusted, to address the concerns and knowledge gaps identified across subgroups. There may also be value in increasing Spanish-language outreach, given the knowledge gap among Spanish speakers.

In short, outreach interventions should consider embracing different sources of information as a means to addressing racial and ethnic disparities in retirement outcomes. For example, Olsen and Whitman (2012) identify three key factors – access, targeting, and delivery – that affect the use of formal financial education by minorities and summarize several real-world financial education initiatives that address them (also recall Vitt and Smith, 2022).

4.2 Retirement Outreach Explicitly Focused on Minorities

Blanco et al. (2020) conduct a community-based randomized controlled trial to promote retirement saving among low- and moderate-income, predominantly Spanish-speaking Hispanics, who do not have access to an employer-sponsored retirement account. The educational intervention provides participants with key information in Spanish related to financial planning for retirement and makes use of behavioral nudges to encourage participants to open a government-sponsored retirement saving account called my Retirement Account (myRA). Those in the treatment group are 12 percent more likely to open myRA. When the sample is restricted to those who have a bank account at some point in the study, the effect increases to 17 percent. The intervention is also effective in increasing self-reported knowledge related to retirement saving and preparedness.

Blanco and Rodriguez (2020) conduct two Facebook experiments to determine what type of message is more effective in getting Hispanic women interested in learning about financial planning for retirement. They find that a message centered on peer influence (“Many Hispanic women like you already have a plan for retirement”) might be more successful than a

message centered on familism (“Having a plan for retirement protects me and my family”). They find that click-through rates are higher among Hispanic women between 45 and 55 years old, and the largest numbers of impressions are among Hispanic women in California and Texas.

As far as we have been able to identify, these are the only studies that have explicitly focused on retirement outreach to minority communities. As discussed in the next section, however, quite a few studies have focused on retirement outreach generally. There is also a related literature on minority outreach in other contexts, particularly public health (e.g., Kreuter et al., 1999, 2004; Alsan et al., 2021). Still, the above suggests that, relative to what is known about how minorities acquire retirement information (i.e., Section 4.1), significantly more work is needed to understand how to (1) best use minorities’ existing sources of information and (2) optimize outreach and service delivery given minorities’ preferences for outreach.¹¹ It is thus not surprising that in the last few years, the Social Security Administration has consistently identified “improving communication and outreach” and “disparities by race and ethnicity” as two of the focal areas for the Retirement and Disability Research Consortium.

4.3 Retirement Outreach Generally

4.3.1 Social Security Retirement Outreach

Smith (2020) finds that workers who receive multiple social security statement mailings are significantly more likely to claim retirement benefits at later ages than are other workers, and statement receipt is positively associated with employment at ages 62-70.¹² She also compares the relative effects of an educational outreach (statement mailings) and a direct policy change (involving the full retirement age) on claiming behavior and finds that the magnitudes of the two effects are similar.¹³

Perez-Arce et al. (2019) experiment with the terminology used to describe the rules governing social security retirement benefits. They find that minimal changes to framing have significant impacts. Those in the treatment group spend less time reading the information but their understanding of the social security program improves more than in the control group. In addition, the treatment has the effect of delaying retirement claiming intentions by an average of about two and a half months. Those in the treatment group are also more likely to advise standardized characters in hypothetical vignettes – video and written stories about hypothetical people – to claim later.

Greenberg et al. (2018) test different interventions that are meant to help people better reason about social security claiming age. They experiment with (1) how the benefits payment schedule is framed, (2) normative messages regarding claiming retirement benefits, (3) consideration of future selves, (4) information about retirement needs, and (5) self-reflection. They find that interventions such as gains frames, considering future regret,

¹¹At the time of this writing, Luisa Blanco and Viceisza have a proposal under review (at the National Bureau of Economic Research’s Retirement and Disability Research Center) that if funded, would explore retirement outreach to Blacks and Hispanics specifically.

¹²Smith and Couch (2014) find that younger workers are significantly more knowledgeable after receiving a social security statement.

¹³Also see broadly related work such as Hemmeter et al. (2020) and Deshpande and Li (2019).

right-tail longevity concerns, and generating reasons why one might want to delay, each have the potential to delay claiming age intentions.¹⁴

Samek et al. (2018) develop and evaluate “consequence messaging,” a behaviorally motivated communication strategy in which vignettes are used to explain the consequences of decisions. They randomly assign respondents in an online study to no vignette, a video vignette, or a written vignette. They find that the vignettes improve understanding and decision-making both in terms of social security claiming decisions and valuing of annuities. However, the effect sizes are not significantly different across written vignettes versus video vignettes. Also, the vignettes do not have a significant effect on how respondents rate the importance of concerns related to retirement.

Brown et al. (2021) also use consequence messaging to examine two behavioral factors that diminish people’s ability to value a lifetime income stream or annuity. They find that increasing the complexity of the annuity choice reduces respondents’ ability to value the annuity. When they limit narrow choice bracketing by inducing people to think first about how quickly or slowly to spend down assets in retirement, people’s ability to value an annuity increases.

4.3.2 Employer Retirement Outreach

Beshears et al. (2021) test the effect of framing future moments in time as new beginnings or so-called “fresh starts”. University employees receive mailings with an opportunity to choose between increasing their contributions to a savings plan immediately or at a specified future time point. Framing the future time point in relation to a fresh start date such as the recipient’s birthday or the first day of spring increases the likelihood that the mailing recipient chooses to increase contributions at that future time point without decreasing their likelihood of increasing contributions immediately. Overall, fresh start framing increases retirement plan contributions in the eight months following the mailing.

Clark et al. (2019) provide information on key aspects of the employer-provided supplemental saving plans to older public employees in North Carolina. Among workers participating in a supplemental plan, individuals who receive an informational flyer increase their contributions in the months following the intervention relative to the control group. In contrast, individuals who are not enrolled in a retirement saving plan are not moved to begin contributing to a supplemental plan. The results suggest that informational interventions can induce workers who are already engaged in the saving process (the intensive margin) to reassess their level of retirement preparedness, but not those who are on the extensive margin.

Allen et al. (2016) examine retirement-planning programs offered by employers to their older employees and assess their impact on financial literacy and retirement. They find that employees’ knowledge about pension plan parameters and financial matters increases as a direct result of attending a pre-retirement planning workshop. They also find that many attendees make changes to their retirement plans.

Clark et al. (2014) provide a subset of newly hired workers at a large financial institution with a flyer containing information about the employer’s 401(k) plan and the value of contri-

¹⁴Brown et al. (2020) discuss that even subtle variations in the framing of claiming options can have a very significant effect on planned retirement and claiming behavior.

butions compounding over a career. Younger workers who receive the flyer are significantly more likely to begin contributing to the plan relative to their peers in the control group. They find that many workers choose not to contribute to the plan because they have other financial priorities. However, some nonparticipants seem to lack the financial literacy to appreciate the benefit.

4.3.3 Hybrid Retirement Outreach

Hershfield et al. (2020) use a custom-built retirement decision aid to test how aggregating outcomes across different retirement funding sources affects retirement decisions. They present two studies that experimentally test whether people select systematically different investment risk allocations, wealth drawdown strategies, annuity decisions, and Social Security Administration claiming intentions when they are shown the aggregated outcome of the decisions versus each piece individually. They find that decisions can be affected by aggregating outcomes and individuals report higher satisfaction with their decisions when made in an aggregated environment. However, individuals also indicate that the outcomes they have chosen are less desirable in hindsight than other possible retirement income paths.¹⁵

Liebman and Luttmer (2015) provide information (in the mail and online) on three topics: (1) longevity/life expectancy, (2) the relationship between retirement age and standard of living during retirement, and (3) the social security earnings test. They find that this relatively mild intervention (sending an informational brochure and an invitation to a web-tutorial) increases labor force participation one year later by four percentage points relative to the control group mean of 74 percent. This effect is driven by a 7.2 percentage point increase among female subjects. In addition to affecting labor supply, the information intervention increases survey measures of the perceived returns to working longer, especially among women.

5 How to Design Better Outreach?

5.1 Behavioral Insights

Knoll (2010, 2011) discuss several insights from behavioral economics that can inform the retirement decision (some of which were alluded to in previously discussed studies): (1) anchoring and adjustment, (2) loss aversion and reference points (e.g., Greenberg et al., 2018), (3) choice architecture (e.g., Hershfield et al., 2020; Brown et al., 2021), (4) nudging (e.g., Blanco et al., 2020), (5) query theory and order effects, (6) impact bias, (7) affective forecasting, (8) mental simulations being unrepresentative, essentialized, abbreviated, and decontextualized, (9) psychological immune system neglect, (10) hyperbolic discounting, (11) the planning fallacy (e.g., Allen et al., 2016), (12) emotions and informational concerns (e.g., Liebman and Luttmer, 2015), and (13) framing (e.g., Blanco and Rodriguez, 2020; Perez-Arce et al., 2019). Below, we discuss several studies that highlight relevant behavioral principles, even though they are not about outreach per se.

¹⁵Also see broadly related work such as Barcellos et al. (2016), Lusardi et al. (2017), and Kaiser et al. (2020).

Clark et al. (2019) find that individuals who more heavily discount the future are less likely to plan and save for retirement. They measure retirement planning behavior both subjectively and objectively. Time preferences have an association with subjectively, but not objectively, measured retirement planning. Individuals' retirement timing is associated with time preferences but only among individuals with a retirement plan.

Benartzi and Thaler (2007) assess heuristics and biases in the area of retirement savings (also see Thaler and Benartzi, 2004). They argue that many effective ways to help retirement-plan participants are also the least costly interventions – small changes in plan design, sensible default options, and opportunities to increase savings rates and rebalance portfolios automatically.

Choi et al. (2002) identify a key behavioral principle that should partially guide the design of 401(k) plans: employees follow the path of least resistance. Plan administrators can manipulate this path of least resistance to influence the savings and investment choices of their employees.

Madrian and Shea (2001) find that (1) 401(k) participation is significantly higher under automatic enrollment and (2) a substantial fraction of 401(k) participants hired under automatic enrollment retain both the default contribution rate and fund allocation even though few employees hired before automatic enrollment picked this particular outcome. This “default” behavior appears to result from participant inertia and from employee perceptions of the default as investment advice.

5.2 Peer Effects

Beshears et al. (2015) measure the effect of disseminating information about peer behavior on savings in a 401(k) plan. Low-saving employees receive simplified plan enrollment or contribution increase forms. A randomized subset of these forms state the fraction of age-matched coworkers participating in the plan or age-matched participants contributing at least 6 percent of pay to the plan. They find that (1) peer information decreases the savings of nonparticipants who were ineligible for 401(k) automatic enrollment and (2) higher observed peer savings rates also decreases savings. This seems to be driven by a discouragement from upward social comparisons.

Koposko et al. (2016) use social comparison theory to understand the impact of interpersonal perceptions on saving behavior. They find that social comparisons account for savings practices over and above demographic and psychological indicators.

Brown and Laschever (2012) use two large unexpected pension reforms to examine the effect of peers on teachers' likelihood of retirement. Controlling for individual and school characteristics, they find that the retirement of an additional teacher in the previous year at the same school increases a teacher's own likelihood of retirement by 1.5-2 percentage points.

Chalmers et al. (2008) test the hypothesis that individuals decide when to retire, at least in part, based on their peers by observing government employees in the state of Oregon. Within their sample, retirements occur in waves. While they can explain a significant fraction of these retirements using demographic and individual-level data on expected retirement benefits, their main finding is that individual decisions about when to retire are strongly correlated with the retirement timing decisions of peers. Moreover, this correlation

is both economically significant and robust, leading them to conclude that peer effects are an important determinant of individual retirement dates.

Dufló and Saez (2002) investigate whether peer effects play an important role in retirement savings decisions. They use individual data from employees of a large university to study whether individual decisions to enroll in a Tax Deferred Account plan sponsored by the university, and the choice of the mutual fund vendor for people who choose to enroll, are affected by the decisions of other employees in the same department. The results suggest that peer effects may be an important determinant of savings decisions.

5.3 Culture

Fisher (2019) investigates differences in financial risk tolerance between Blacks and Whites. Financial literacy is positively associated with high and some (versus no) financial risk tolerance for White households, but this relationship does not hold for Black households. Moreover, the relationship between net worth and high financial risk tolerance differed significantly for Blacks and Whites. The findings suggest that the frameworks used to explain the financial behaviors of Whites may not be appropriate for all groups.

Martin Jr. et al. (2014) investigate whether racial differences in trust can explain decisions to consult a financial planner. They find that Blacks and Hispanics are more likely to report having low trust compared to non-Black, non-Hispanic respondents. Controlling for trust levels, Blacks are more likely to consult a financial planner relative to non-Black, non-Hispanic respondents while Hispanics are less likely to. There is suggestive evidence that low trust may be inhibiting Blacks' willingness and/or ability to save for retirement.

Murphy (2013) finds that after controlling for earnings, level of education, and other socioeconomic variables, financial satisfaction and religiosity are significant predictors of financial literacy (albeit different from retirement decisions). While no causality is argued, the findings can have implications for strategies for improving financial literacy. He concludes that it is important to target financial literacy campaigns to maximize the impact of limited education resources.

6 Conclusion

We review select literature on (1) racial and ethnic disparities in retirement outcomes and (2) the potential for outreach and service delivery, for example, by the Social Security Administration and employers, to address such disparities.

Two primary findings emerge:

1. There are significant racial and ethnic disparities in a range of retirement outcomes, partly reflecting a long history of racism and structural barriers (e.g., Brown et al., 2019; Viceisza, 2022). While social security plays a significant role in reducing the retirement wealth gap, it is not sufficient to close the gap. There is thus room for employer-sponsored retirement plans and individual retirement accounts to increase and diversify retirement wealth.

2. There is significant research on (1) the impact of retirement outreach and financial literacy interventions generally and (2) racial and ethnic disparities in retirement information acquisition. In fact, much of this work has incorporated behavioral insights (e.g., framing or nudges) and/or tested behavioral factors (e.g., time preferences or reference dependence). However, there is comparatively little work that explores the differential impact of retirement outreach interventions across race and ethnicity, particularly when intersected with other demographic characteristics such as gender or immigrant and socio-economic status.

Thus, one key avenue for future work is to design retirement outreach interventions that cater to the needs of specific demographic groups, for example, by embracing the fact that Blacks, Hispanics, and Whites have different preferences for information acquisition and rely on different types of pre-existing social capital. Future interventions explicitly aimed at addressing racial and ethnic disparities should capitalize on the lessons learned from prior outreach studies, for example, the role of behavioral factors, peer effects, and culture.

Two secondary, more methodological, findings also emerge:

1. Prior outreach experiments have primarily been implemented in collaboration with the Understanding America Study, Amazon Mechanical Turk, and field partners such as universities, federal government agencies (e.g., General Services Administration and Social Security Administration), state and local governments, and (social media) companies.
2. Analyses of secondary data have primarily been conducted using the Health and Retirement Study, the Understanding America Study, and the Survey of Consumer Finances. Other secondary data sources include the National Longitudinal Study of Youth, the National Financial Capability Study, the Retirement Confidence Survey, the RAND American Life Panel, the NORC AmericaSpeaks Panel, and administrative data, typically from companies.

Thus, another key avenue for future work is to innovate methodologically. Consider a few examples. First, more work is needed to properly identify race and ethnicity and link across data sources (e.g., Martin, 2016; Drazen et al., 2022). Second, more work is needed to customize data collection methods to minority respondents, for example, by addressing language barriers and/or cultural sensitivities related to trust or religiosity (e.g., Blanco et al., 2020, propose the Retirement Knowledge Scale as part of the Health and Retirement Study in an effort to better understand Hispanics' knowledge of retirement). Third, techniques such as natural language processing can be used to provide a more holistic picture of minorities' realities (e.g., Carman and Williams, 2022, explore such methods to better understand racial and ethnic disparities in social capital). Finally, more work is needed to improve measurement of retirement income and wealth (e.g., Dushi and Trenkamp, 2021).

References

Aguila, Emma and Zeewan Lee (2022). Work and Retirement for Older Black and Hispanic Adults. Presentation at SSA RDRC Annual Meeting UM22-16, Michigan Retirement and Disability Research Center.

- Aguila, Emma, Zeewan Lee, and Rebeca Wong (2021). Migration, Work, and Retirement: The Case of Mexican-Origin Populations. *Journal of Pension Economics & Finance*, 1–21.
- Aka, Philip C. and Chidera Oku (2017). Black Retirement Security in the Era of Defined Contribution Plans: Why African Americans Need to Invest More in Stocks to Generate the Savings They Need for a Comfortable Retirement. *Journal of Law and Public Policy* 14(2), 169–195.
- Alattar, Laith, Matt Messel, and Mark A. Sarney (2019). The Use of Longitudinal Data on Social Security Program Knowledge. *Social Security Bulletin* 79(4).
- Alexander, Diane and Janet Currie (2017). Is it Who You Are or Where You Live? Residential Segregation and Racial Gaps in Childhood Asthma. *Journal of Health Economics* 55, 186–200.
- Allen, Steven G., Robert L. Clark, Jen Maki, and Melinda S. Morrill (2016, Winter). Golden Years or Financial Fears? How Plans Change after Retirement Seminars. *The Journal of Retirement* 3(3), 96–115.
- Alsan, M., F. C. Stanford, A. Banerjee, E. Breza, A. G. Chandrasekhar, S. Eichmeyer, P. Goldsmith-Pinkham, L. Ogbu-Nwobodo, B. A. Olken, C. Torres, A. Sankar, P. L. Vautrey, and E. Duflo (2021). Comparison of Knowledge and Information-Seeking Behavior After General COVID-19 Public Health Messages and Messages Tailored for Black and Latinx Communities. *Annals of Internal Medicine* 174(4), 484–492. PMID: 33347320.
- Angel, Jacqueline L, Kate C Prickett, and Ronald J Angel (2014). Retirement Security for Black, non-Hispanic White, and Mexican-origin women: The Changing Roles of Marriage and Work. *Journal of Women, Politics & Policy* 35(3), 222–241.
- Angrisani, Marco, Sergio Barrera, Luisa R. Blanco, and Salvador Contreras (2021). The Racial/Ethnic Gap in Financial Literacy in the Population and by Income. *Contemporary Economic Policy* 39(3), 524–536.
- Ariel/Hewitt (2009, July). 401(k) Plans in Living Color: A Study of 401(k) Savings Disparities Across Racial and Ethnic Groups. Study report, Ariel Education Initiative and Hewitt.
- Ariel/Hewitt (2012, April). 401(k) Plans in Living Color: A Study of 401(k) Savings Disparities Across Racial and Ethnic Groups. Study report, Ariel Education Initiative and AON Hewitt.
- Aubry, Jean-Pierre and Kevin Wandrei (2021, November). How to Increase Usage of SSA’s Online Tools. Working Paper 2021-15, Center for Retirement Research at Boston College.
- Barcellos, Silvia Helena, Leandro S. Carvalho, James P. Smith, and Joanne Yoong (2016). Financial Education Interventions Targeting Immigrants and Children of Immigrants: Results from a Randomized Control Trial. *Journal of Consumer Affairs* 50(2), 263 – 285.

- Bayer, Patrick and Kerwin Kofi Charles (2018, 01). Divergent Paths: A New Perspective on Earnings Differences Between Black and White Men Since 1940. *The Quarterly Journal of Economics* 133(3), 1459–1501.
- Benartzi, Shlomo and Richard Thaler (2007). Heuristics and Biases in Retirement Savings Behavior. *Journal of Economic Perspectives* 21(3), 81–104.
- Berger, Benjamin, Italo Lopez Garcia, Nicole Maestas, and Kathleen J Mullen (2022, May). The Link between Health and Working Longer: Disparities in Work Capacity. Working Paper 30036, National Bureau of Economic Research.
- Beshears, John, James J. Choi, David Laibson, Brigitte C. Madrian, and Katherine L. Milkman (2015). The Effect of Providing Peer Information on Retirement Savings Decisions. *The Journal of Finance* 70(3), 1161–1201.
- Beshears, John, Hengchen Dai, Katherine L. Milkman, and Shlomo Benartzi (2021). Using Fresh Starts to Nudge Increased Retirement Savings. *Organizational Behavior and Human Decision Processes* 167, 72–87.
- Bhutta, Neil, Andrew C. Chang, Lisa J. Dettling, and Joanne W. Hsu (2020, September). Disparities in Wealth by Race and Ethnicity in the 2019 Survey of Consumer Finances. FEDS Notes, Washington: Board of Governors of the Federal Reserve System.
- Blanco, Luisa, Sylvia Paz, and Ron Hays (2020). Health and Retirement Study, Retirement Knowledge Scale. Experimental module, University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, (2022).
- Blanco, Luisa R., Emma Aguila, Arturo Gongora, and O. Kenrik Duru (2017). Retirement Planning Among Hispanics: In God’s Hands? *Journal of Aging & Social Policy* 29(4), 311–331. PMID: 27976984.
- Blanco, Luisa R., O. Kenrik Duru, and Carol M. Mangione (2020). A Community-Based Randomized Controlled Trial of an Educational Intervention to Promote Retirement Saving Among Hispanics. *Journal of Family & Economic Issues* 41(2), 300 – 315.
- Blanco, Luisa R. and Luis M. Rodriguez (2020). Delivering Information about Retirement Saving among Hispanic Women: Two Facebook eExperiments. *Behavioural Public Policy* 4(3), 343–369.
- Bloom, David E, David Canning, and Michael Moore (2007, November). A Theory of Retirement. Working Paper 13630, National Bureau of Economic Research.
- Blundell, R., E. French, and G. Tetlow (2016). Chapter 8 - Retirement Incentives and Labor Supply. Volume 1 of *Handbook of the Economics of Population Aging*, pp. 457–566. North-Holland.
- Borjas, George (2010, February). Social Security Eligibility and the Labor Supply of Elderly Immigrants. Working Paper NB07-13, National Bureau of Economic Research.

- Brown, Jeffrey, James Choi, and Richard Woodbury (2020). Social Security and Financial Security at Older Ages. *Social Security Bulletin* 80(1).
- Brown, Jeffrey R., Arie Kapteyn, Erzo F. P. Luttmer, Olivia S. Mitchell, and Anya Samek (2021). Behavioral Impediments to Valuing Annuities: Complexity and Choice Bracketing. *The Review of Economics and Statistics* 103(3), 533–546.
- Brown, Kristine M. and Ron A. Laschever (2012). When They’re Sixty-Four: Peer Effects and the Timing of Retirement. *American Economic Journal: Applied Economics* 4(3), 90–115.
- Brown, Steven, Kilolo Kijakazi, Charmaine Runes, and Margery Austin Turner (2019, February). Confronting Structural Racism in Research and Policy Analysis. Report, The Urban Institute.
- Burtless, Gary and Audrey Singer (2011, January). The Earnings and Social Security Contributions of Documented and Undocumented Mexican Immigrants. Working Paper 2011-2, Center for Retirement Research at Boston College.
- Butrica, Barbara A. and Richard W. Johnson (2010, June). Racial, Ethnic, and Gender Differentials in Employer-Sponsored Pensions. Testimony, Urban Institute.
- Button, Patrick, Mashfiqur R. Khan, and Mary Penn (2022). Do Stronger Employment Discrimination Protections Decrease Reliance on Social Security Disability Insurance? Evidence from the U.S. Social Security Reforms. *The Journal of the Economics of Ageing*, 100370.
- Calvo, Esteban, Ignacio Madero-Cabib, and Ursula M Staudinger (2017). Retirement Sequences of Older Americans: Moderately Destandardized and Highly Stratified Across Gender, Class, and Race. *The Gerontologist* 58(6), 1166–1176.
- Carman, Katherine and Jhacova Williams (2022). Disparities in Social Security Knowledge and the Role of Social Capital. Presentation at SSA RDRC Annual Meeting UM22-12, Michigan Retirement and Disability Research Center.
- Carman, Katherine G. and Angela A. Hung (2018). Social Security Household Benefits: Measuring Program Knowledge. Working Paper WP 384-2018, Michigan Retirement and Disability Research Center.
- Chalmers, John, Woodrow Johnson, and Jonathan Reuter (2008, September). Who Determines When You Retire? Peer Effects and Retirement. Working Paper RRC NB08-13, National Bureau of Economic Research, Retirement Research Center (RRC).
- Chan, Sewin and Ann H. Stevens (2004). Do Changes in Pension Incentives Affect Retirement? A Longitudinal Study of Subjective Retirement Expectations. *Journal of Public Economics* 88, 1307–1333.

- Choi, James J., David Laibson, Brigitte C. Madrian, and Andrew Metrick (2002). Defined Contribution Pensions: Plan Rules, Participant Choices, and the Path of Least Resistance. In James M. Poterba (Ed.), *Tax Policy and the Economy, Volume 16*, pp. 67–114. MIT Press.
- Choudhury, Sharmila (2002). Racial and Ethnic Differences in Wealth and Asset Choices. *Social Security Bulletin* 64(4), 1–15.
- Choukhmane, Taha, Jorge Colmenares, Cormac O’Dea, and Jonathan Rothbaum (2022). Who Benefits from Retirement Saving Incentives in the U.S.? Evidence on Racial Gaps in Retirement Wealth Accumulation. Presentation at NBER Summer Institute, MIT.
- Clark, Robert L., Robert G. Hammond, and Christelle Khalaf (2019). Planning for Retirement? The Importance of Time Preferences. *Journal of Labor Research* 40(2), 127 – 150.
- Clark, Robert L., Robert G. Hammond, Melinda S. Morrill, and Christelle Khalaf (2019). Informing Retirement Savings Decisions: A Field Experiment on Supplemental Plans. *Economic Inquiry* 57(1), 188 – 205.
- Clark, Robert L., Jennifer A. Maki, and Melinda Sandler Morrill (2014). Can Simple Informational Nudges Increase Employee Participation in a 401(k) Plan? *Southern Economic Journal* 80(3), 677 – 701.
- Cohen, Cathy J., Matthew D. Luttig, and Jon C. Rogowski (2017, June). The Economic Lives of Millennials. Technical report, Chicago, IL: GenForward Surveys.
- Copeland, Craig (2021). The Status of American Families’ Accumulations in Individual Account Retirement Plans and Differences by Race/Ethnicity: An Analysis of the 2019 Survey of Consumer Finances. *EBRI Issue Brief* (527), 1–30.
- Copeland, Craig and Lisa Greenwald (2021). 2021 Retirement Confidence Survey: A Closer Look at Black and Hispanic Americans. *EBRI Issue Brief* (530), 1–75.
- Costa, Dora L (2008, November). The Rise of Retirement Among African Americans: Wealth and Social Security Effects. Working Paper 14462, National Bureau of Economic Research.
- Dal Borgo, Mariela (2019). Ethnic and Racial Disparities in Saving Behavior. *Journal of Economic Inequality* 17(2), 253–283.
- Darity, William, Jr., A. Kirsten Mullen, and Marvin Slaughter (2022, May). The Cumulative Costs of Racism and the Bill for Black Reparations. *Journal of Economic Perspectives* 36(2), 99–122.
- Darity Jr., William A. and A. Kirsten Mullen (2020). *From Here to Equality: Reparations for Black Americans in the Twenty-first Century*. Chapel Hill, NC: The University of North Carolina Press.

- Derenoncourt, Ellora, Chi Hyun Kim, Moritz Kuhn, and Moritz Schularick (2022, June). Wealth of Two Nations: The U.S. Racial Wealth Gap, 1860-2020. Working Paper 30101, National Bureau of Economic Research.
- Deshpande, Manasi and Yue Li (2019). Who Is Screened Out? Application Costs and the Targeting of Disability Programs. *American Economic Journal: Economic Policy* 11(4), 213–48.
- Drazen, Yonah, Lawrence M. Berger, J. Michael Collins, Molly Costanzo, and Hilary Shager (2022). The Power of Linked Administrative Data: Understanding Racial and Ethnic Differences in SSA and Means-Tested Benefit Receipt and Their Anti-Poverty Effects for Children in Multigenerational Families. Presentation at SSA RDRC Annual Meeting WI22-06, Center for Financial Security Retirement and Disability Research Center.
- Dufo, Esther and Emmanuel Saez (2002). Participation and Investment Decisions in a Retirement Plan: The Influence of Colleagues' Choices. *Journal of Public Economics* 85(1), 121–148.
- Dushi, Irena and Brad Trenkamp (2021, January). Improving the Measurement of Retirement Income of the Aged Population. ORES Working Paper 116, Washington: Social Security Administration.
- Fisher, Patti J. (2019). Black-White Differences in Financial Risk Tolerance. Working Paper, Social Science Research Network.
- Flippen, Chenoa and Marta Tienda (2000). Pathways to Retirement: Patterns of Labor Force Participation and Labor Market Exit among the Pre-Retirement Population by Race, Hispanic Origin, and Sex. *Journals of Gerontology series b* 55(1), S14–S27.
- Fontes, Angela (2011). Differences in the Likelihood of Ownership of Retirement Saving Assets by the Foreign and Native-Born. *Journal of Family and Economic Issues* 32(4), 612–624.
- Francis, Dania V. and Christian E. Weller (2021). Race, Ethnicity, and Retirement Security in the United States. *Oxford Research Encyclopedia of Economics and Finance* (November).
- Francis, Dania V. and Christian E. Weller (2022). Interfamily Financial Dependence and Retirement Savings. *The Journal of Retirement*.
- Fry, Richard, Rakesh Kochhar, Jeffrey Passel, and Roberto Suro (2005, March). Hispanics and the Social Security Debate. Report, Pew Research Center.
- Gomes, Francisco, Michael Haliassos, and Tarun Ramadorai (2021, September). Household Finance. *Journal of Economic Literature* 59(3), 919–1000.
- Greenberg, Adam Eric, Hal E. Hershfield, John W. Payne, Suzanne B. Shu, and Stephen A. Spiller (2017). Exploring How Uncertainty in Longevity Estimates Predicts Social Security Claiming Decisions. Working Paper 17-09, NBER Retirement Research Center.

- Greenberg, Adam E., Hal E. Hershfield, Suzanne Shu, and Stephen Spiller (2018, August). What Motivates Social Security Claiming Age Intentions? Testing Behaviorally-Informed Interventions Alongside Individual Difference. Working Paper NB18-06, National Bureau of Economic Research.
- Gustman, Alan L. and Thomas L. Steinmeier (1986a). A Disaggregated, Structural Analysis of Retirement by Race, Difficulty of Work and Health. *The Review of Economics and Statistics* 68(3), 509–513.
- Gustman, Alan L. and Thomas L. Steinmeier (1986b). A Structural Retirement Model. *Econometrica* 54(3), 555 – 584.
- Gustman, Alan L. and Thomas L. Steinmeier (2004). Understanding Patterns of Social Security Benefit Receipt, Pensions Incomes, Retirement and Saving by Race, Ethnicity, Gender and Marital status: A Structural Approach. Working paper 2004-082, Michigan Retirement and Disability Research Center.
- Haider, Steven J. and Melvin Stephens (2007, May). Is There a Retirement-Consumption Puzzle? Evidence Using Subjective Retirement Expectations. *The Review of Economics and Statistics* 89(2), 247–264.
- Hamilton, Darrick and William A. Darity Jr. (2017). The Political Economy of Education, Financial Literacy, and the Racial Wealth Gap. *Federal Reserve Bank of St. Louis Review* (First Quarter), 59–76.
- Hanks, A., D. Solomon, and C. Weller (2018). Systematic Inequality: How America’s Structural Racism Helped Create the Black-White Wealth Gap. Report, Center for American Progress.
- Hemmeter, Adam, John Phillips, Elana Safran, and Nicholas Wilson (2020, November). Communicating Program Eligibility: A Supplemental Security Income (SSI) Field Experiment. Working paper, Office of Evaluation Sciences and Social Security Administration.
- Hendley, Alexa A. and Natasha F. Bilimoria (1999). Minorities and Social Security: An Analysis of Ethnic Differences in the Current Program. *Social Security Bulletin* 62(2).
- Hershfield, Hal E., Suzanne Shu, Stephen Spiller, and David B. Zimmerman (2020, September). Broad Framing in Retirement Income Decision Making. Working Paper NB20-10, National Bureau of Economic Research.
- Honig, Marjorie (1996). Retirement Expectations: Differences by Race, Ethnicity, and Gender. *The Gerontologist* 36(3), 373–382.
- Hou, Wenliang and Geoffrey T. Sanzenbacher (2020a, January). Measuring Racial/Ethnic Retirement Wealth Inequality. Working Paper 2020-2, Center for Retirement Research, Boston College.
- Hou, Wenliang and Geoffrey T. Sanzenbacher (2020b, January). Social Security Is a Great Equalizer. Brief 20-2, Center for Retirement Research, Boston College.

- Hudson, Crystal, John Young, Sophia Anong, Elania Hudson, and Edward Davis (2017). African American Financial Socialization. *The Review of Black Political Economy* 44(3-4), 285–302.
- Hudson, Crystal R. and John Young (2022). Wealth: Factors That Effect African American Wealth. *The Review of Black Political Economy* (forthcoming).
- Johnson, Richard W., Stipica Mudrazija, and Claire Xiaozhi Wang (2016, December). Hispanics' Retirement Security: Past Trends and Future Prospects. Research report, Urban Institute.
- Johnson, Richard W, Stipica Mudrazija, and Claire Xiaozhi Wang (2017). Hispanics' Retirement Transitions and Differences by Nativity. *Journal of Aging and Health* 29(6), 1096–1115.
- Kaiser, Tim, Annamaria Lusardi, Lukas Menkhoff, and Carly J Urban (2020, April). Financial Education Affects Financial Knowledge and Downstream Behaviors. Working Paper 27057, National Bureau of Economic Research.
- Kim, Jinhee, Jasook Kwon, and Elaine A. Anderson (2005). Factors Related to Retirement Confidence: Retirement Preparation and Workplace Financial Education. *Journal of Financial Counseling and Planning* 16(2), 1–19.
- Kim, Kyoung Tae, Soo Hyun Cho, and Sharon A. DeVaney (2021). Racial/Ethnic Differences in Holding a Retirement Saving Motive: A Decomposition Analysis. *Journal of Consumer Affairs* 55(2), 464 – 482.
- Kim, Kyoung Tae and Sherman D. Hanna (2015). Do U.S. Households Perceive Their Retirement Preparedness Realistically? *Financial Services Review* 24(2), 139 – 155.
- Knapp, David and Francisco Perez-Arce (2022). An Analysis of Racial and Ethnic Disparities in Knowledge about Social Security Programs and Their Consequences. In progress.
- Knoll, Melissa A. Z (2010). The Role of Behavioral Economics and Behavioral Decision Making in Americans' Retirement Savings Decisions. *Social Security Bulletin* 70(4).
- Knoll, Melissa A. Z (2011). Behavioral and Psychological Aspects of the Retirement Decision. *Social Security Bulletin* 71(4).
- Koposko, Janet L, Helen Kiso, Douglas A Hershey, and Paul Gerrans (2016). Perceptions of Retirement Savings Relative to Peers. *Work, Aging and retirement* 2(1), 65–72.
- Kreuter, Matthew W., Celette Sugg Skinner, Karen Steger-May, Cheryl L. Holt, Dawn C. Bucholtz, Eddie M. Clark, and Debra Haire-Joshu (2004). Responses to Behaviorally vs Culturally Tailored Cancer Communication among African American Women. *American Journal of Health Behavior* 28(3), 195–207.
- Kreuter, Matthew W., Victor J. Strecher, and Bernard Glassman (1999). One Size Does not Fit All: The Case for Tailoring Print Materials. *Annals of Behavioral Medicine* 21(276).

- Leonesio, M. V. (1996). The Economics of Retirement: A Nontechnical Guide. *Social Security Bulletin* 59(4), 29–50.
- Liebman, Jeffrey B. and Erzo F. P. Luttmer (2015). Would People Behave Differently If They Better Understood Social Security? Evidence from a Field Experiment. *American Economic Journal: Economic Policy* 7(1), 275–299.
- Lopez, Mary J. and Sita Slavov (2020). Do Immigrants Delay Retirement and Social Security Claiming? *Applied Economics* 52.
- Love, David and Lucie Schmidt (2015). Comprehensive Wealth of Immigrants and Natives. Working Paper 2015-328, Michigan Retirement Research Center.
- Lusardi, Annamaria and Olivia S. Mitchell (2011a). Financial Literacy and Planning: Implications for Retirement Wellbeing. In Annamaria Lusardi and Olivia S. Mitchell (Eds.), *Financial Literacy. Implications for Retirement Security and the Financial Marketplace*, pp. 17–39. Oxford University Press.
- Lusardi, Annamaria and Olivia S. Mitchell (2011b). Financial Literacy and Retirement Planning in the United States. *Journal of Pension Economics and Finance* 10(4), 509–525.
- Lusardi, Annamaria, Anya Samek, Arie Kapteyn, Lewis Glinert, Angela Hung, and Aileen Heinberg (2017). Visual Tools and Narratives: New Ways to Improve Financial Literacy. *Journal of Pension Economics & Finance* 16(3), 297–323.
- Madrian, Brigitte C. and Dennis F. Shea (2001). The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior. *The Quarterly Journal of Economics* 116(4), 1149–1187.
- Martin, Patricia P. (2016, August). Why Researchers Now Rely on Surveys for Race Data on OASDI and SSI Programs: A Comparison of Four Major Surveys. *Research and Statistics Notes* 2016-01.
- Martin Jr., Terrance K., Michael Finke, and Philip Gibson (2014). Race, Trust, and Retirement Decisions. *Journal of Personal Finance* 13(2), 62 – 71.
- McGarry, Kathleen (2004). Health and Retirement: Do Changes in Health Affect Retirement Expectations? *Journal of Human Resources* 39(3), 624–648.
- Mitchell, Olivia S. and Gary S. Fields (1984). The Economics of Retirement Behavior. *Journal of Labor Economics* 2(1), 84–105.
- Munnell, Alicia H., Wenliang Hou, and Geoffrey T. Sanzenbacher (2018, November). Trends in Retirement Security by Race/Ethnicity. Brief 18-21, Center for Retirement Research, Boston College.
- Murphy, John L. (2013). Psychosocial Factors and Financial Literacy. *Social Security Bulletin* 73(1), 73–81.

- Murphy, John L., Alicia Gourd, and Faith Begay (2014, August). Financial Literacy Among American Indians and Alaska Natives. *Research and Statistics Notes 2014-04*.
- Olsen, Anya and Kevin Whitman (2012). *An Overview of Contemporary Financial Education Initiatives Aimed at Minority Populations*, pp. 77–97. New York, NY: Springer New York.
- Palladino, Lenore M. (2022). The Contribution of Shareholder Primacy to the Racial Wealth Gap. *The Review of Black Political Economy (forthcoming)*.
- Perez-Arce, Francisco, Lila Rabinovich, Joanne Yoong, and Laith Alattar (2019). Three Little Words? The Impact of Social Security Terminology. CESR-Schaeffer Working Paper 2019-005, Los Angeles: USC.
- Peterson, Janice, Barbara A. Smith, and Qi Guan (2019). Hispanics’ Knowledge of Social Security: New Evidence. *Social Security Bulletin 79(4)*.
- Pew Research Center (2019, March). Looking to the Future, Public Sees an America in Decline on Many Fronts. Report.
- Prados, Maria J. and Arie Kapteyn (2019). Subjective Expectations, Social Security Benefits, and the Optimal Path to Retirement. MRDRC Working Paper 2019-405, University of Michigan Retirement and Disability Research Center (MRDRC).
- Rabinovich, Lila, Janice Peterson, and Barbara A. Smith (2017). Hispanics’ Understanding of Social Security and the Implications for Retirement Security: A Qualitative Study. *Social Security Bulletin 77(3)*.
- Rabinovich, Lila and Joanne Yoong (2016, May). How Do People Want to Learn About Social Security? Working Paper 2015-021, USC.
- Rhee, N. (2013). Race and Retirement Insecurity in the United States. Report, National Institute on Retirement Security.
- Samek, Anya, Arie Kapetyn, and Andre Gray (2018). Using Consequence Messaging to Improve Understanding of Social Security. Working Paper 2018-383, Michigan Retirement Research Center.
- Sevak, Purvi and Lucie Schmidt (2014). Immigrants and Retirement Resources. *Social Security Bulletin 74(1)*.
- Shu, Suzanne and John W. Payne (2013). Life Expectation Judgments, Fairness, and Loss Aversion in the Psychology of Social Security Claiming Decisions. Working Paper 13-05, NBER Retirement Research Center.
- Smith, Barbara A. (2020). Can Informational Interventions Be Effective Policy Tools? An Initial Assessment of the Social Security Statement. *Social Security Bulletin 80(4)*, 1–22.
- Smith, Barbara A. and Kenneth A. Couch (2014). How Effective Is the Social Security Statement? Informing Younger Workers about Social Security. *Social Security Bulletin 74(4)*, 1–19.

- Spriggs, William E. (1984). Afro-American Wealth Accumulation, Virginia 1900-1914. Dissertation, University of Wisconsin-Madison.
- Sun, Wei, Gia Barboza, and Karen Richman (2007). Latinos' Financial Literacy and Retirement Planning. *The Business Journal of Hispanic Research* 1(2), 54–68.
- Tamborini, Christopher R and Changhwan Kim (2019, 10). Are You Saving for Retirement? Racial/Ethnic Differentials in Contributory Retirement Savings Plans. *The Journals of Gerontology: Series B* 75(4), 837–848.
- Thaler, Richard H. and Shlomo Benartzi (2004). Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving. *Journal of Political Economy* 112(S1), S164–S187.
- Torres, Alfredo, Jose A. Muñoz, and Rubi Becerril (2016). Elderly Undocumented Latinos and Their Retirement Strategies. Working Paper, California State University, San Bernardino.
- Turner, John A. and David Rajnes (2021). Workers' Expectations About Their Future Social Security Benefits: How Realistic Are They? *Social Security Bulletin* 81(4), 1–17.
- Viceisza, Angelino C. G. (2022, In Progress). Black Women's Retirement Preparedness and Wealth. Policy Brief, The Urban Institute.
- Vitt, Lois A. and Barbara A. Smith (2022). Where Is Information About Social Security Retirement Benefits Provided to the Public? An Initial Assessment. *Social Security Bulletin* 82(1), 1–9.
- White, Kenneth J, Megan McCoy, Kimberly Watkins, XianYan Chen, Janet Kopusko, and Matthew Mizuta (2021). “We Don't Talk about That”: Exploring Money Conversations of Black, Hispanic, and White Households. *Family and Consumer Sciences Research Journal* 49(4), 328–343.
- Yakoboski, Paul J., Annamaria Lusardi, and Andrea Hasler (2020). Financial Literacy and Wellness among African-Americans: New Insights from the Personal Finance (P-Fin) Index. *The Journal of Retirement* 8(1), 22–31.
- Yates, Stephanie R (2019). From Financial Education to Financial Literacy to Financial Stability: Evidence of National and Regional Connections. *Journal of Personal Finance* 18(2), 51–59.
- Yoong, Joanne, Lila Rabinovich, and Saw Htay Wah (2015, November). What Do People Know About Social Security? Working Paper 2015-022, University of Southern California.
- Yoong, Joanne K., Angela A. Hung, Silvia Helena Barcellos, Leandro Carvalho, and Jack Clift (2019, October). Disparities in Minority Retirement Savings Behavior. Working paper, RAND.

Young, John H., Crystal R. Hudson, and Edward L. Davis (2017). A Survey of Retirement Readiness Among African-Americans. *Journal of African American Studies* 21(4), 551–566.

Zewde, Naomi (2020). Universal Baby Bonds Reduce Black-White Wealth Inequality, Progressively Raise Net Worth of All Young Adults. *The Review of Black Political Economy* 47(1), 3–19.

Tables and Figures

Figure 1: Average retirement wealth at age 55-64 (in real terms, 2016 dollars). Source: Authors' calculations derived from the Survey of Consumer Finances SDA tool (1989-2016).

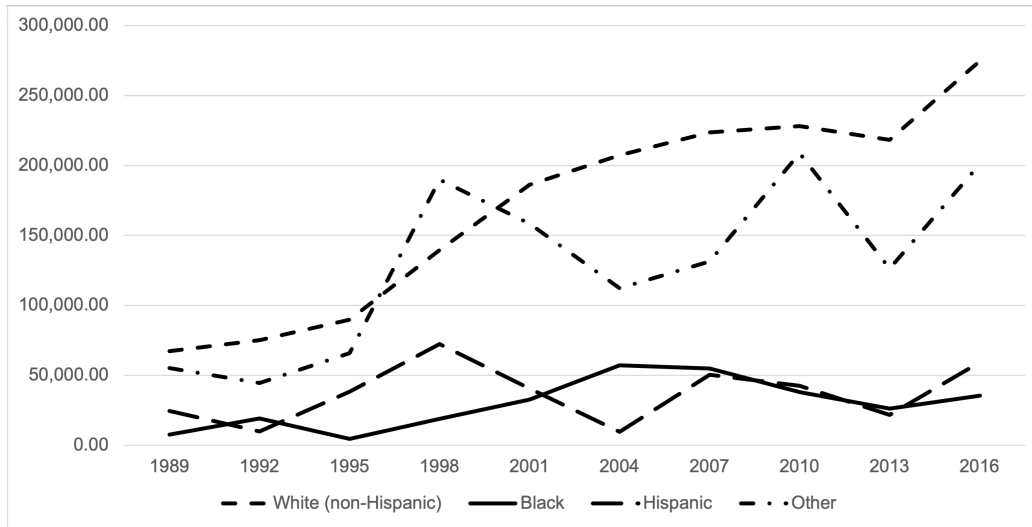


Table 1: Retirement preparedness and knowledge by race and ethnicity. Source: Yoong et al. (2015) Table 22 (derived from the Understanding America Study, wave 26).

	White	Black	Hispanic	Other
% Feel very financially prepared for retirement	12%	1%	3%	8%
% Feel very knowledgeable about retirement planning questions	13%	10%	8%	12%
% Feel very knowledgeable about social security benefit questions	15%	12%	9%	10%
% Correct calculation of social security benefit questions	71%	58%	60%	67%

Figure 2: Frequency of non-retired respondents who would find a particular future source of information about social security benefits “very useful” or “somewhat useful”, by race and ethnicity. Source: Authors’ calculations derived from Understanding America Study wave 26 raw data.

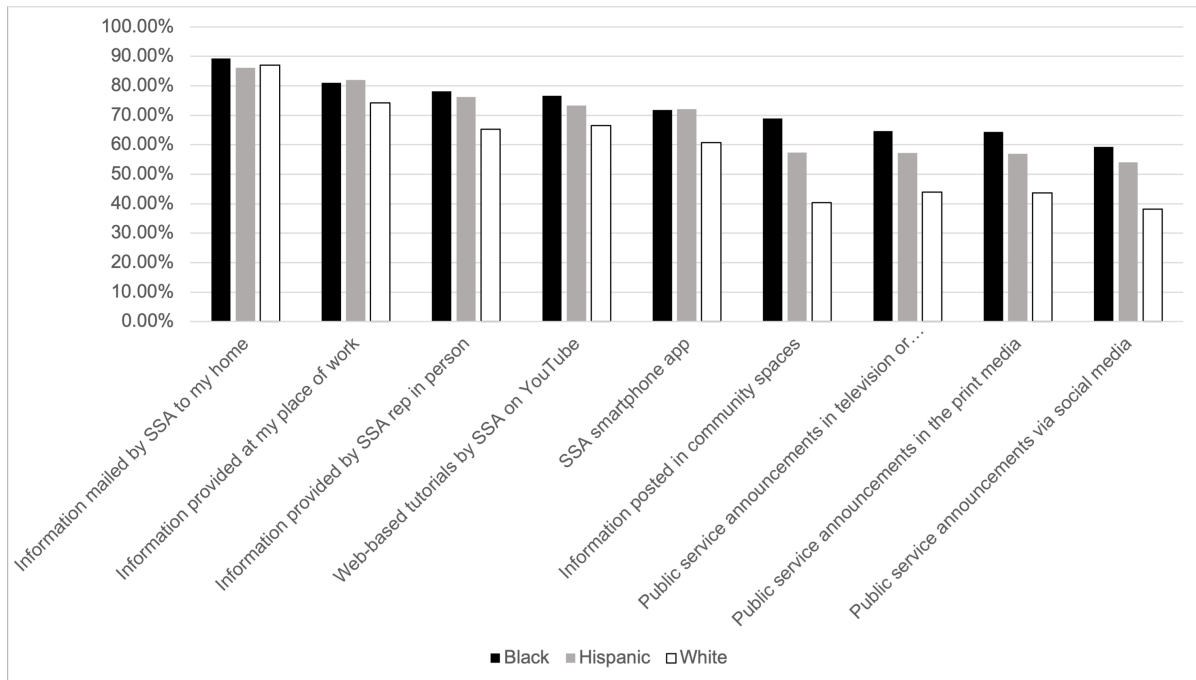


Figure 3: Frequency of retired respondents who would find a particular future source of information about social security benefits “very useful” or “somewhat useful”, by race and ethnicity. Source: Authors’ calculations derived from Understanding America Study wave 26 raw data.

