

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

Angelino Viceisza,<sup>†</sup> Amaia Calhoun,<sup>‡</sup> and Gabriella Lee<sup>§</sup>

November 23, 2022

## Abstract

We review select literature on racial and ethnic disparities in retirement outcomes in the United States 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 incorporate behavioral insights, particularly from prior interventions, and innovate on methodologies for data collection, linking, and analysis.

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

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

---

\*We are grateful to Laith Alattar, Luisa Blanco, Courtney Coile, Nicole Maestas, Kevin Moore, John Murphy, and Anya Olsen for helpful discussions. The research reported herein was performed pursuant to grant RDR18000003 from the US Social Security Administration (SSA) funded as part of the Retirement and Disability Research Consortium. The opinions and conclusions expressed are solely those of the author(s) and do not represent the opinions or policy of SSA, any agency of the Federal Government, or NBER. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of the contents of this report. Reference herein to any specific commercial product, process or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply endorsement, recommendation or favoring by the United States Government or any agency thereof.

<sup>†</sup>Corresponding author. Spelman College and NBER, 350 Spelman Lane SW, Atlanta, GA 30314, [avi-ceisz@spelman.edu](mailto:avi-ceisz@spelman.edu)

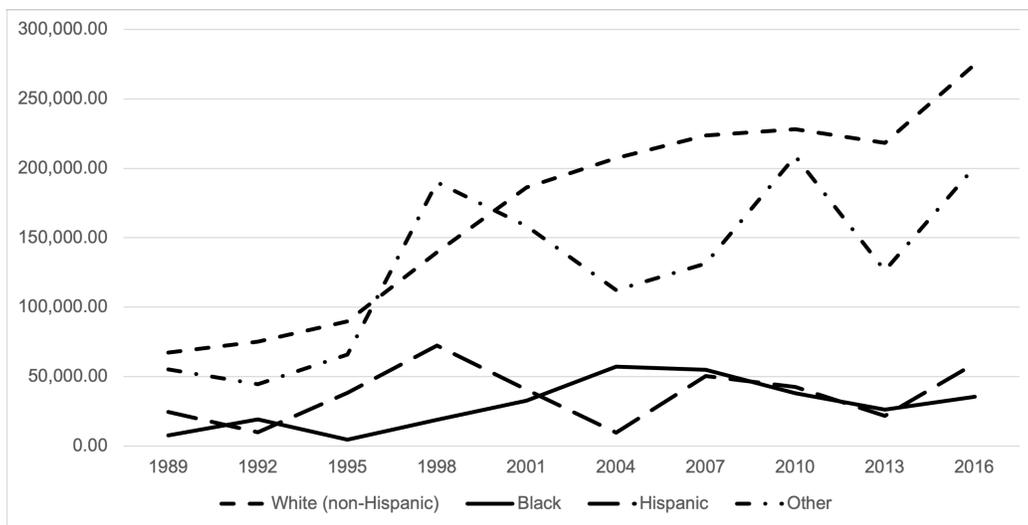
<sup>‡</sup>Spelman College, 350 Spelman Lane SW, Atlanta, GA 30314, [acalhou9@spelman.edu](mailto:acalhou9@spelman.edu)

<sup>§</sup>Spelman College, 350 Spelman Lane SW, Atlanta, GA 30314, [gabriellalee@spelman.edu](mailto:gabriellalee@spelman.edu).

# 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, 72 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 (SSA) in 2021 (SSA Fact Sheet). This is in part because significant racial and ethnic disparities exist in retirement outcomes. For example, 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). While retirement wealth for Whites and Others has improved over time, that is not the case for Blacks and Hispanics.

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) available at <https://sda.berkeley.edu/sdaweb/analysis/?dataset=scfcomb2019>.

In this article, we review select literature on racial and ethnic disparities in retirement outcomes and the potential for outreach and service delivery, for example, by the SSA and employers, to address such disparities. 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. We round out the process by conducting backward and forward citation searches for the resulting papers. To keep the review tractable, we do not focus on the literature on racial and ethnic wealth disparities generally (e.g., Boggs, 1970; Spriggs, 1984; Bayer and Charles, 2018; Hanks et al., 2018; Darity Jr. and Mullen, 2020; Zewde,

2020; Darity et al., 2022; Derenoncourt et al., 2022; Hudson and Young, 2022; Palladino, 2022, among others).

The remainder of the article is organized as follows. In Section 2, we start by synthesizing racial and ethnic disparities in a range of outcomes, including retirement knowledge, subjective feelings, and expectations; financial education, awareness, and literacy; retirement planning and preparedness behavior; and retirement age, security, and wealth. We then summarize what is known about racial and ethnic disparities in acquiring retirement information, preferred modes of outreach, and potential impacts of outreach (Section 3) as well as how to design better outreach interventions (Section 4). We conclude with the types of data that have been used to address the issues discussed in the article and avenues for future work (Section 5).

## **2 Disparities in Retirement Outcomes**

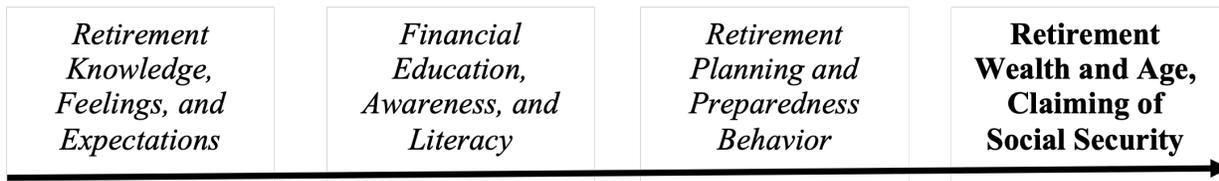
### **2.1 A Conceptual Framework for Retirement Planning**

In 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; Leonesio, 1996; Bloom et al., 2007; Blundell et al., 2016). Retirement preparedness is “implicit” to such a model because the decision-maker must choose how much to (1) work (e.g., whether to continue working and/or claim retirement benefits), (2) save (e.g., pensions and individual accounts), and (3) invest in assets (e.g., housing and stocks). In so doing, they are choosing how best to prepare for retirement and at what point (also see the framework by Gomes et al., 2021, and some of the references within).

There are at least two reasons why retirement behavior might deviate from optimal retirement model predictions. First, actual choices tend to be impacted by a range of constraints that are not necessarily accounted for in such models, for example, occupation type (e.g., some jobs do not offer employment-sponsored retirement accounts or pay enough to allow for retirement contributions) and lack of access to perfect financial information (e.g., reliance on trusted social networks versus financial professionals for advice). Second and somewhat related, popular financial advice frequently departs from normative principles derived from economic models because such advice can be driven by fallacies, taking into account the limited willpower individuals have to stick to financial plans (Choi, 2022).

Racial and ethnic disparities in retirement outcomes can thus be attributed to range of structural factors (e.g., Viceisza, 2022). Francis and Weller (2021) discuss (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 (also see Smythe, 2022), (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). 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 the impacts of the above-mentioned structural factors.

Figure 2: Spectrum of Retirement Outcomes



In this section, we synthesize the evidence on racial and ethnic disparities in a range of retirement outcomes. As portrayed in figure 2, we start from the premise that retirement wealth, retirement age, and claiming of social security retirement benefits (Section 2.5) are the primary outcomes of interest. However, in order to achieve adequate levels of such outcomes, people must formulate retirement plans (Section 2.4), which in turn rely on their financial awareness (Section 2.3) as well as retirement knowledge, feelings, and expectations (Section 2.2).

## 2.2 Retirement Knowledge, Feelings, and Expectations

Four key findings emerge from prior work on retirement knowledge, feelings, and expectations:

1. Blacks, Hispanics, and Asian/Others fare worse than Whites in terms of their knowledge of retirement planning and social security benefits (e.g., see Table 1 based on Yoong et al., 2015). Consistent with this, Peterson et al. (2019) find that Hispanics’ self-assessed knowledge of retirement-related financial issues is significantly lower than that of Whites.
2. While only a small proportion of Americans feel very financially prepared for retirement, Blacks, Hispanics, and Asian/Others feel less prepared for retirement than Whites (Table 1). In addition, Cohen et al. (2017) find that among a sample of Americans aged 18-34, most do not have confidence in the future of the social security system: Asians have the least confidence (79 percent lack confidence in social security); followed by Whites at 77 percent; then Blacks at 73 percent; and finally, Hispanics at 66 percent.
3. Blacks, Hispanics, and Asian/Others combined are significantly less realistic than Whites in terms of how they perceive 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 (e.g., Kim and Hanna, 2015).
4. While recent work has studied the effect of retirement expectations 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), practically no attention has been paid to racial and ethnic disparities in retirement expectations.<sup>1</sup> Some work has, however, looked at other differences, for example, Prados and Kapteyn (2019) study differences across gender and retirement uncertainty.

<sup>1</sup>Seminal work by Honig (1996) finds that expected retirement functions, estimated separately for Blacks, Hispanics, and Whites, appear to have been generated by the same underlying behavioral model that has been found to explain retirement outcomes.

Table 1: Retirement Preparedness and Knowledge by Race and Ethnicity

	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%

Source: Yoong et al. (2015) Table 22 (derived from the Understanding America Study, wave 26).

## 2.3 Financial Education, Awareness, and Literacy

Four key findings emerge from prior work on financial education, awareness, and literacy:<sup>2</sup>

1. Financial education socialization varies by race, gender, and socio-economic 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 (e.g., Yates, 2019).
2. Financial illiteracy is widespread and systematic throughout the population but is of particular concern for Blacks, Hispanics, American Indians, and Alaska Natives (e.g., Sun et al., 2007; Lusardi and Mitchell, 2011a,b; Murphy et al., 2014; Yakoboski et al., 2020).
3. For both Blacks and Hispanics, differences in individual characteristics and neighborhood socioeconomic status contribute the most to the racial and ethnic gap in financial literacy (e.g., Angrisani et al., 2021).
4. Academics and policymakers should take heed in their discourse associated with financial literacy (e.g., Hamilton and Darity Jr., 2017). 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. Also see broadly related work such as Brown et al. (2019).

## 2.4 Retirement Planning and Preparedness Behavior

Six key findings emerge from prior work on retirement planning and preparedness behavior:

1. Blacks and Hispanics are less likely than Whites to have individual accounts while Asians are more likely to than Whites to have such accounts (e.g., Rhee, 2013; Johnson et al., 2016; Tamborini and Kim, 2019; Bhutta et al., 2020).<sup>3</sup> These differences tend to be exacerbated by gender and immigrant status (e.g., Angel et al., 2014).
2. Minorities have lower assets in their individual account retirement plans, thus giving them much less flexibility in financing retirement (e.g., Ariel/Hewitt, 2009, 2012; Copeland, 2021).

<sup>2</sup>Also see broadly related work such as Barcellos et al. (2016), Lusardi et al. (2017), and Kaiser et al. (2020).

<sup>3</sup>Individual account plans include (1) employment-based retirement savings plans financed by both employer and employee contributions (most notably, defined contribution (DC) 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.

3. Minorities are less likely to hold a retirement saving motive – this gap is primarily explained by homeownership, objective financial knowledge, planning horizon, and age (e.g., Young et al., 2017; Dal Borgo, 2019; Kim et al., 2021).
4. Unwillingness to invest in riskier assets, i.e., risk preferences, explain some of the racial and ethnic disparities in wealth and thus, retirement preparedness (e.g., Choudhury, 2002; Aka and Oku, 2017; Fisher, 2019; Yoong et al., 2019; Hudson et al., 2021).
5. Interfamily dependence contributes to racial and ethnic disparities in retirement (e.g., Blanco et al., 2017; Francis and Weller, 2022).
6. Minorities are likely to continue relying on social security benefits during retirement for the foreseeable future (e.g., Fry et al., 2005; Hou and Sanzenbacher, 2020b).

## **2.5 Retirement Age, Security, and Wealth**

Three key findings emerge from prior work on retirement age, claiming behavior, security, and wealth:

1. In part due to the COVID-19 pandemic, retirement rates now exceed those predicted by the demographic shift of baby boomers into retirement. Blacks, Hispanics, and Native Americans are less likely to be retired than Whites while Asians are slightly more likely to be retired than Whites (e.g., Rodgers III and Ricketts, 2022).
2. The primary reason for early retirement 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 (e.g., Copeland and Greenwald, 2021). As expected, these findings vary with whether a worker is foreign-born or not. 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).
3. Blacks and Hispanics report disproportionately lower financial resources than Whites, thus impacting how they feel about retirement and financial security (e.g., Munnell et al., 2018). Indeed, racial and ethnic disparities in retirement wealth are significant. 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 (e.g., Hendley and Bilimoria, 1999; Gustman and Steinmeier, 2004; Costa, 2008; Hou and Sanzenbacher, 2020a,b; Aguila and Lee, 2022; Choukhmane et al., 2022). Because social security covers nearly all workers and has a progressive benefit design, it has thus been described as the great equalizer.

### **3 What Do We Know about Information Acquisition and Impacts of Outreach?**

As alluded to in the previous section, communication and information about finances are essential to retirement planning. Yet, significant 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 (also see Hudson et al., 2017; Rabinovich et al., 2017). Prior research also finds that social security policy and the way it is communicated strongly influences work, retirement, and claiming behavior (e.g., Alattar et al., 2019; Brown et al., 2020). Yet, 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 (e.g., Vitt and Smith, 2022). Thus, there is potential to impact the general public's, specifically minorities', information sets through outreach initiatives.

In this section, we first discuss what is known about racial and ethnic disparities in preferred outreach (Section 3.1). We then summarize findings from prior outreach interventions that have explicitly targeted minorities (Section 3.2) and the general population (Section 3.3).

#### **3.1 Racial and Ethnic Disparities in Preferred Information Sources and Outreach**

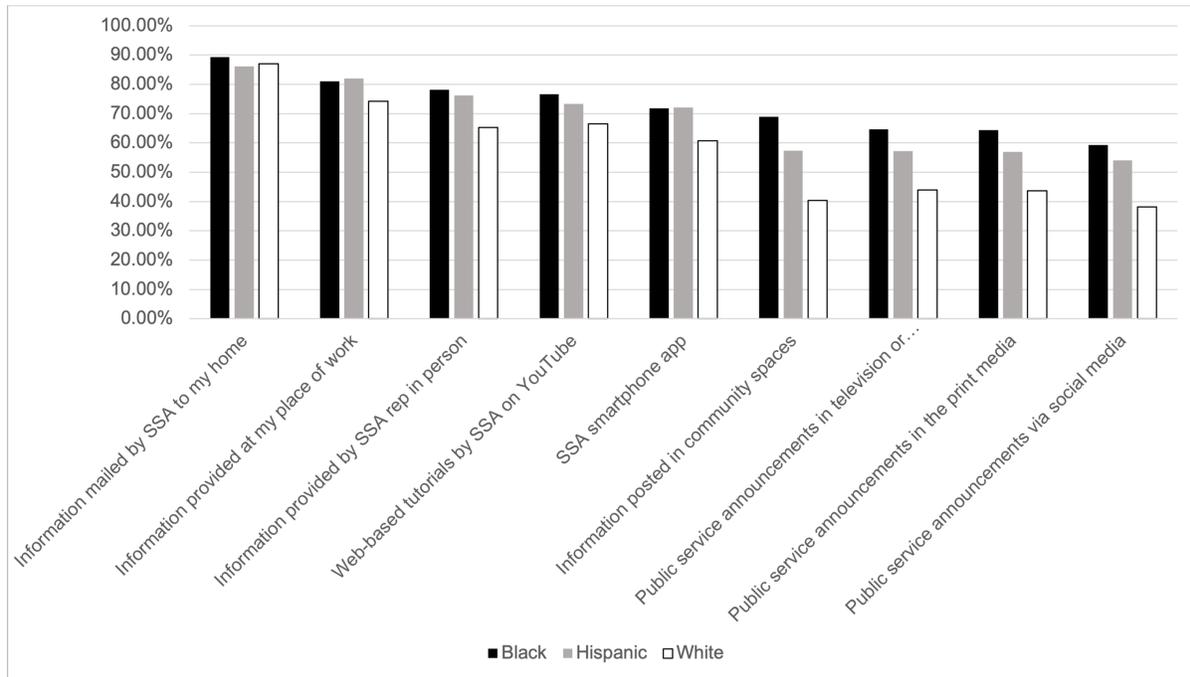
Prior research finds that all racial and ethnic groups consistently turn to pre-existing social networks, in the form of family and friends, for social security information (e.g., Rabinovich and Yoong, 2016; Carman and Hung, 2018; Carman and Williams, 2022; Knapp and Perez-Arce, 2022). Compared to other 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 in terms of their preferred information sources.

Figures 3 and 4 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). The 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, or 4=not useful at all. The raw frequencies in the figures are for respondents who indicated either 1 (very useful) or 2 (somewhat useful). In order to keep the figures manageable, only Blacks, Hispanics, and Whites are included.

As figure 3 for non-retired respondents shows, 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. There are also some more subtle differences, for example, Whites rank YouTube/web tutorials as the third highest source while Blacks and Hispanics list information provided via SSA representatives as the

third highest source.

Figure 3: Frequency of Non-Retired Respondents Who Find a Certain Future Source of Information about Social Security Benefits “Very Useful” or “Somewhat Useful”, by Race and Ethnicity

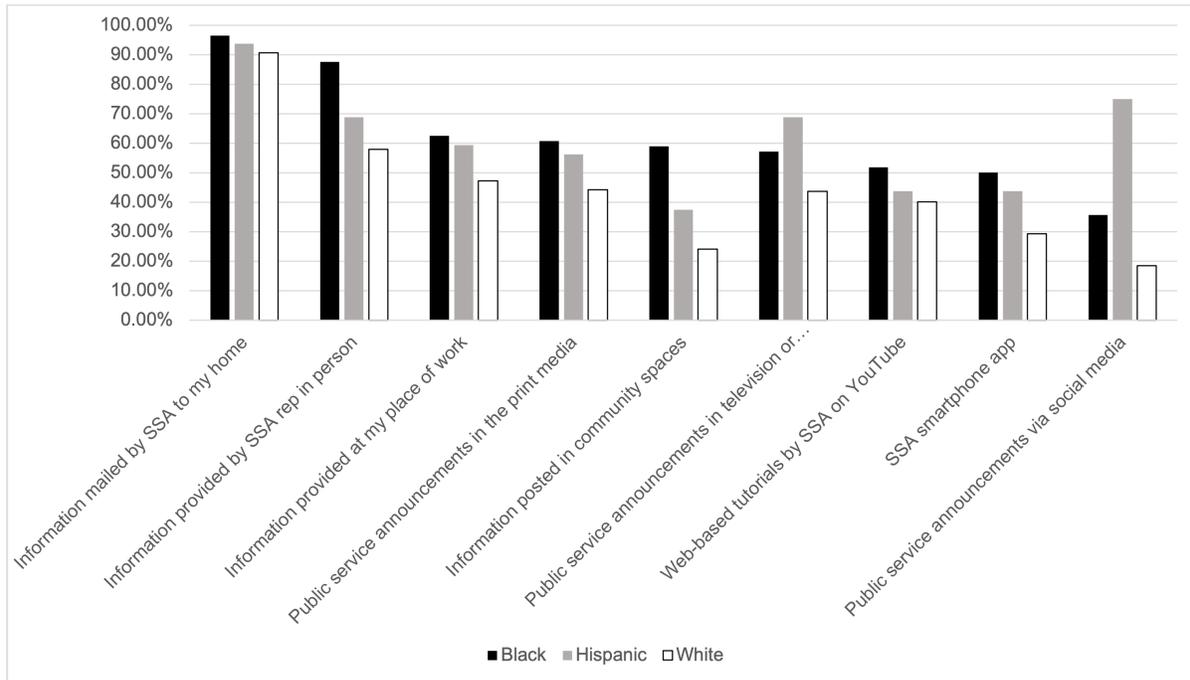


Source: Authors’ calculations derived from Understanding America Study wave 26 raw data available at <https://uasdata.usc.edu/index.php>.

Figure 4 (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 SSA 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 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 an SSA 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 for both retirees and near-retirees.

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).

Figure 4: Frequency of Retired Respondents Who Find a Certain 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 available at <https://uasdata.usc.edu/index.php>.

### 3.2 Retirement Outreach Explicitly Focused on Minorities

As far as we have been able to identify, there are only two studies (specifically, Blanco et al., 2020; Blanco and Rodriguez, 2020, which we elaborate on further below) that have explicitly focused on retirement outreach to minority communities.<sup>4</sup> However, as discussed in Section 3.3, 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, this small number of studies suggests that, relative to what is known about how minorities acquire retirement information (i.e., Section 3.1), 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. It is thus not surprising that in the last few years, the SSA 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.

Returning to the minority-outreach studies, Blanco et al. (2020) provide low- and moderate-income, predominantly Spanish-speaking Hispanics with key information on financial planning for retirement and use behavioral nudges to encourage them to open a government-sponsored retirement saving account. Those in the treatment group are 12 percent more likely to open the account and report increased knowledge related to retirement saving and preparedness. Meanwhile, Blanco

<sup>4</sup>At the time of this writing, Blanco and Viceisza are designing a project that would explore retirement outreach to Blacks and Hispanics specifically.

and Rodriguez (2020) find that a message centered on peer influence (“Many Hispanic women like you already have a plan for retirement”) is more effective at nudging people towards retirement planning than a message centered on familism (“Having a plan for retirement protects me and my family”).

### **3.3 Retirement Outreach Generally**

Prior research broadly finds that retirement outreach interventions work. While the design details are discussed in Section 4, here are some key take-aways:

1. Social security statement mailings impact retirement knowledge and delayed claiming of retirement benefits (e.g., Smith and Couch, 2014; Smith, 2020). Some of these effects vary by demographics such as gender, for example, online and physical employment mailings differentially increase female labor supply and perceived returns to working longer (e.g., Liebman and Luttmer, 2015).
2. The terminology that is used to describe the rules governing social security retirement benefits impacts understanding of the social security program (e.g., Perez-Arce et al., 2019). Even subtle variations in the framing of claiming options have an impact on planned retirement and claiming behavior (e.g., Brown et al., 2020).
3. The stage of retirement planning and life cycle that people are in matters for impacts of outreach. For example, informational interventions 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 (e.g., Clark et al., 2019). Also, they induce older employees to make changes to their retirement plans (e.g., Allen et al., 2016) while they induce younger employees to begin contributing to their retirement plans (e.g., Clark et al., 2014).

## **4 How to Design Better Outreach?**

### **4.1 Behavioral Insights**

Prior research suggests that the following non-mutually exclusive behavioral issues should be kept in mind when designing future retirement outreach interventions:

1. Framing effects, for example, (A) consequence messaging (e.g., Samek et al., 2018; Brown et al., 2021, who use vignettes to explain the consequences of decisions), (B) “fresh start” framing (e.g., Beshears et al., 2021, who frame future moments such as birthdays as new beginnings), (C) choice architecture (e.g., Hershfield et al., 2020, who present the aggregated outcome of decisions versus individual pieces), and (D) Brown et al. (2020) discussed previously (also see broadly related work such as Hemmeter et al., 2020).
2. Hassle costs, for example, (A) following the path of least resistance (e.g., Choi et al., 2002) (also see broadly related work such as Deshpande and Li, 2019) and (B) default options (e.g., Madrian and Shea, 2001, who find that “default” behavior appears to result from participant inertia and from employee perceptions of the default as investment advice).

3. Heuristics and biases, for example, (A) Thaler and Benartzi (2004); Benartzi and Thaler (2007) (who find that many effective ways to help retirement-plan participants are also the least costly interventions) and (B) Caplin et al. (2022) (who find that information can eliminate bias and improve understanding of eligibility age).
4. Types and intensity of nudges, for example, Liebman and Luttmer (2015), Blanco et al. (2020), Blanco and Rodriguez (2020), and Smith (2020), all of whom were discussed previously.
5. Loss aversion and reference points, for example, Greenberg et al. (2018) who find that interventions such as gains frames, considering future regret, right-tail longevity concerns, and generating reasons why one might want to delay, each have the potential to delay claiming age intentions.
6. The planning fallacy, for example, Allen et al. (2016) referenced previously.
7. Other aspects such as (A) anchoring and adjustment, (B) query theory and order effects, (C) impact bias, (D) affective forecasting, (E) mental simulations being unrepresentative, essentialized, abbreviated, and decontextualized, (F) psychological immune system neglect, (G) hyperbolic discounting, and (H) emotions and informational concerns, as discussed by Knoll (2010, 2011).

## 4.2 Peer Effects and Culture

The above-mentioned behavioral factors interact with peer and cultural effects. For example, Koppo et al. (2016) use social comparison theory to understand the impact of interpersonal perceptions on savings behavior. They find that social comparisons account for savings practices over and above demographic and psychological factors.

Indeed, there is significant empirical evidence on peer effects, for example:

1. They matter for retirement savings (e.g., Duflo and Saez, 2002). In fact, the impacts are context-dependent. Peer information can discourage retirement savings due to upward social comparisons (e.g., Beshears et al., 2015).
2. They can drive (or be strongly correlated with) one's own retirement (e.g., Chalmers et al., 2008; Brown and Laschever, 2012).

Finally, prior work suggests that other cultural factors also matter for retirement behavior, specifically risk (recall Section 2.4), trust (e.g., Martin Jr. et al., 2014), patience (e.g., Clark et al., 2019), and religiosity (e.g., Murphy, 2013). These cultural factors are of course deeply rooted in historical context, specifically racist policies and structural barriers (e.g., Brown et al., 2019; Hamilton and Darity Jr., 2017; Francis and Weller, 2021).

## 5 Conclusion

In this article, we review select literature on racial and ethnic disparities in retirement outcomes and the potential for outreach and service delivery, for example, by the SSA 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; Francis and Weller, 2021; 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., risk and time preferences). 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 networks. 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 SSA), 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. 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, E. and Z. 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, E., Z. Lee, and R. Wong (2021). Migration, Work, and Retirement: The Case of Mexican-Origin Populations. *Journal of Pension Economics & Finance*, 1–21.
- Aka, P. C. and C. 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, L., M. Messel, and M. A. Sarney (2019). The Use of Longitudinal Data on Social Security Program Knowledge. *Social Security Bulletin* 79(4).
- Alexander, D. and J. 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, S. G., R. L. Clark, J. Maki, and M. 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, J. L., K. C. Prickett, and R. 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, M., S. Barrera, L. R. Blanco, and S. 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, J.-P. and K. Wandrei (2021, November). How to Increase Usage of SSA’s Online Tools. Working Paper 2021-15, Center for Retirement Research at Boston College.
- Barcellos, S. H., L. S. Carvalho, J. P. Smith, and J. 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, P. and K. K. 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, S. and R. Thaler (2007). Heuristics and Biases in Retirement Savings Behavior. *Journal of Economic Perspectives* 21(3), 81–104.
- Berger, B., I. Lopez Garcia, N. Maestas, and K. J. Mullen (2022, May). The Link between Health and Working Longer: Disparities in Work Capacity. Working Paper 30036, National Bureau of Economic Research.
- Beshears, J., J. J. Choi, D. Laibson, B. C. Madrian, and K. L. Milkman (2015). The Effect of Providing Peer Information on Retirement Savings Decisions. *The Journal of Finance* 70(3), 1161–1201.
- Beshears, J., H. Dai, K. L. Milkman, and S. Benartzi (2021). Using Fresh Starts to Nudge Increased Retirement Savings. *Organizational Behavior and Human Decision Processes* 167, 72–87.
- Bhutta, N., A. C. Chang, L. J. Dettling, and J. 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, L., S. Paz, and R. 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, L. R., E. Aguila, A. Gongora, and O. K. Duru (2017). Retirement Planning Among Hispanics: In God’s Hands? *Journal of Aging & Social Policy* 29(4), 311–331. PMID: 27976984.
- Blanco, L. R., O. K. Duru, and C. 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, L. R. and L. M. Rodriguez (2020). Delivering Information about Retirement Saving among Hispanic Women: Two Facebook eExperiments. *Behavioural Public Policy* 4(3), 343–369.
- Bloom, D. E., D. Canning, and M. 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.
- Boggs, J. (1970). The Myth and Irrationality of Black Capitalism. *The Review of Black Political Economy* 1(1), 27–35.
- Borjas, G. (2010, February). Social Security Eligibility and the Labor Supply of Elderly Immigrants. Working Paper NB07-13, National Bureau of Economic Research.

- Brown, J., J. Choi, and R. Woodbury (2020). Social Security and Financial Security at Older Ages. *Social Security Bulletin* 80(1).
- Brown, J. R., A. Kapteyn, E. F. P. Luttmer, O. S. Mitchell, and A. Samek (2021). Behavioral Impediments to Valuing Annuities: Complexity and Choice Bracketing. *The Review of Economics and Statistics* 103(3), 533–546.
- Brown, K. M. and R. 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, S., K. Kijakazi, C. Runes, and M. A. Turner (2019, February). Confronting Structural Racism in Research and Policy Analysis. Report, The Urban Institute.
- Burtless, G. and A. 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, B. A. and R. W. Johnson (2010, June). Racial, Ethnic, and Gender Differentials in Employer-Sponsored Pensions. Testimony, Urban Institute.
- Button, P., M. R. Khan, and M. 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, E., I. Madero-Cabib, and U. M. Staudinger (2017). Retirement Sequences of Older Americans: Moderately Destandardized and Highly Stratified Across Gender, Class, and Race. *The Gerontologist* 58(6), 1166–1176.
- Caplin, A., E. Lee, S. Leth-Petersen, and J. Sæverud (2022, November). Communicating Social Security Reform. Working Paper 30645, National Bureau of Economic Research.
- Carman, K. and J. 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, K. G. and A. A. Hung (2018). Social Security Household Benefits: Measuring Program Knowledge. Working Paper WP 384-2018, Michigan Retirement and Disability Research Center.
- Chalmers, J., W. Johnson, and J. 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, S. and A. 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, J. J. (2022, November). Popular Personal Financial Advice versus the Professors. *Journal of Economic Perspectives* 36(4), 167–92.

- Choi, J. J., D. Laibson, B. C. Madrian, and A. Metrick (2002). Defined Contribution Pensions: Plan Rules, Participant Choices, and the Path of Least Resistance. In J. M. Poterba (Ed.), *Tax Policy and the Economy, Volume 16*, pp. 67–114. MIT Press.
- Choudhury, S. (2002). Racial and Ethnic Differences in Wealth and Asset Choices. *Social Security Bulletin* 64(4), 1–15.
- Choukhmane, T., J. Colmenares, C. O’Dea, and J. 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, R. L., R. G. Hammond, and C. Khalaf (2019). Planning for Retirement? The Importance of Time Preferences. *Journal of Labor Research* 40(2), 127 – 150.
- Clark, R. L., R. G. Hammond, M. S. Morrill, and C. Khalaf (2019). Informing Retirement Savings Decisions: A Field Experiment on Supplemental Plans. *Economic Inquiry* 57(1), 188 – 205.
- Clark, R. L., J. A. Maki, and M. S. Morrill (2014). Can Simple Informational Nudges Increase Employee Participation in a 401(k) Plan? *Southern Economic Journal* 80(3), 677 – 701.
- Cohen, C. J., M. D. Luttig, and J. C. Rogowski (2017, June). The Economic Lives of Millennials. Technical report, Chicago, IL: GenForward Surveys.
- Copeland, C. (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, C. and L. Greenwald (2021). 2021 Retirement Confidence Survey: A Closer Look at Black and Hispanic Americans. *EBRI Issue Brief* (530), 1–75.
- Costa, D. 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, M. (2019). Ethnic and Racial Disparities in Saving Behavior. *Journal of Economic Inequality* 17(2), 253–283.
- Darity, William, J., A. K. Mullen, and M. Slaughter (2022, May). The Cumulative Costs of Racism and the Bill for Black Reparations. *Journal of Economic Perspectives* 36(2), 99–122.
- Darity Jr., W. A. and A. K. 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, E., C. H. Kim, M. Kuhn, and M. Schularick (2022, June). Wealth of Two Nations: The U.S. Racial Wealth Gap, 1860-2020. Working Paper 30101, National Bureau of Economic Research.
- Deshpande, M. and Y. Li (2019). Who Is Screened Out? Application Costs and the Targeting of Disability Programs. *American Economic Journal: Economic Policy* 11(4), 213–48.

- Drazen, Y., L. M. Berger, J. M. Collins, M. Costanzo, and H. 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.
- Duflo, E. and E. Saez (2002). Participation and Investment Decisions in a Retirement Plan: The Influence of Colleagues' Choices. *Journal of Public Economics* 85(1), 121–148.
- Dushi, I. and B. Trenkamp (2021, January). Improving the Measurement of Retirement Income of the Aged Population. ORES Working Paper 116, Washington: Social Security Administration.
- Fisher, P. J. (2019). Black-White Differences in Financial Risk Tolerance. Working Paper, Social Science Research Network.
- Flippen, C. and M. 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, A. (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, D. V. and C. E. Weller (2021). Race, Ethnicity, and Retirement Security in the United States. *Oxford Research Encyclopedia of Economics and Finance* (November).
- Francis, D. V. and C. E. Weller (2022). Interfamily Financial Dependence and Retirement Savings. *The Journal of Retirement*.
- Fry, R., R. Kochhar, J. Passel, and R. Suro (2005, March). Hispanics and the Social Security Debate. Report, Pew Research Center.
- Gomes, F., M. Haliassos, and T. Ramadorai (2021, September). Household Finance. *Journal of Economic Literature* 59(3), 919–1000.
- Greenberg, A. E., H. E. Hershfield, J. W. Payne, S. B. Shu, and S. A. Spiller (2017). Exploring How Uncertainty in Longevity Estimates Predicts Social Security Claiming Decisions. Working Paper 17-09, NBER Retirement Research Center.
- Greenberg, A. E., H. E. Hershfield, S. Shu, and S. 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, A. L. and T. 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, A. L. and T. L. Steinmeier (1986b). A Structural Retirement Model. *Econometrica* 54(3), 555 – 584.

- Gustman, A. L. and T. 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, S. J. and M. 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, D. and W. 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, A., J. Phillips, E. Safran, and N. Wilson (2020, November). Communicating Program Eligibility: A Supplemental Security Income (SSI) Field Experiment. Working paper, Office of Evaluation Sciences and Social Security Administration.
- Hendley, A. A. and N. F. Bilimoria (1999). Minorities and Social Security: An Analysis of Ethnic Differences in the Current Program. *Social Security Bulletin* 62(2).
- Hershfield, H. E., S. Shu, S. Spiller, and D. B. Zimmerman (2020, September). Broad Framing in Retirement Income Decision Making. Working Paper NB20-10, National Bureau of Economic Research.
- Honig, M. (1996). Retirement Expectations: Differences by Race, Ethnicity, and Gender. *The Gerontologist* 36(3), 373–382.
- Hou, W. and G. T. Sanzenbacher (2020a, January). Measuring Racial/Ethnic Retirement Wealth Inequality. Working Paper 2020-2, Center for Retirement Research, Boston College.
- Hou, W. and G. T. Sanzenbacher (2020b, January). Social Security Is a Great Equalizer. Brief 20-2, Center for Retirement Research, Boston College.
- Hudson, C., J. Young, S. Anong, E. Hudson, and E. Davis (2017). African American Financial Socialization. *The Review of Black Political Economy* 44(3-4), 285–302.
- Hudson, C. R., M. Phillips, T. Smalls, and J. Young (2021). Investment Behavior: Factors that Impact African American Women’s Investment Behavior. *The Review of Black Political Economy* 48(3), 349–367.
- Hudson, C. R. and J. Young (2022). Wealth: Factors That Effect African American Wealth. *The Review of Black Political Economy* (forthcoming).
- Johnson, R. W., S. Mudrazija, and C. X. Wang (2016, December). Hispanics’ Retirement Security: Past Trends and Future Prospects. Research report, Urban Institute.
- Johnson, R. W., S. Mudrazija, and C. X. Wang (2017). Hispanics’ Retirement Transitions and Differences by Nativity. *Journal of Aging and Health* 29(6), 1096–1115.

- Kaiser, T., A. Lusardi, L. Menkhoff, and C. J. Urban (2020, April). Financial Education Affects Financial Knowledge and Downstream Behaviors. Working Paper 27057, National Bureau of Economic Research.
- Kim, J., J. Kwon, and E. 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, K. T., S. H. Cho, and S. A. DeVaney (2021). Racial/Ethnic Differences in Holding a Retirement Saving Motive: A Decomposition Analysis. *Journal of Consumer Affairs* 55(2), 464 – 482.
- Kim, K. T. and S. D. Hanna (2015). Do U.S. Households Perceive Their Retirement Preparedness Realistically? *Financial Services Review* 24(2), 139 – 155.
- Knapp, D. and F. Perez-Arce (2022). An Analysis of Racial and Ethnic Disparities in Knowledge about Social Security Programs and Their Consequences. In progress.
- Knoll, M. A. Z. (2010). The Role of Behavioral Economics and Behavioral Decision Making in Americans' Retirement Savings Decisions. *Social Security Bulletin* 70(4).
- Knoll, M. A. Z. (2011). Behavioral and Psychological Aspects of the Retirement Decision. *Social Security Bulletin* 71(4).
- Koposko, J. L., H. Kiso, D. A. Hershey, and P. Gerrans (2016). Perceptions of Retirement Savings Relative to Peers. *Work, Aging and retirement* 2(1), 65–72.
- Kreuter, M. W., C. S. Skinner, K. Steger-May, C. L. Holt, D. C. Bucholtz, E. M. Clark, and D. 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, M. W., V. J. Strecher, and B. 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, J. B. and E. 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, M. J. and S. Slavov (2020). Do Immigrants Delay Retirement and Social Security Claiming? *Applied Economics* 52.
- Love, D. and L. Schmidt (2015). Comprehensive Wealth of Immigrants and Natives. Working Paper 2015-328, Michigan Retirement Research Center.
- Lusardi, A. and O. S. Mitchell (2011a). Financial Literacy and Planning: Implications for Retirement Wellbeing. In A. Lusardi and O. S. Mitchell (Eds.), *Financial Literacy. Implications for Retirement Security and the Financial Marketplace*, pp. 17–39. Oxford University Press.

- Lusardi, A. and O. S. Mitchell (2011b). Financial Literacy and Retirement Planning in the United States. *Journal of Pension Economics and Finance* 10(4), 509–525.
- Lusardi, A., A. Samek, A. Kapteyn, L. Glinert, A. Hung, and A. Heiinberg (2017). Visual Tools and Narratives: New Ways to Improve Financial Literacy. *Journal of Pension Economics & Finance* 16(3), 297–323.
- Madrian, B. C. and D. 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, P. 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., T. K., M. Finke, and P. Gibson (2014). Race, Trust, and Retirement Decisions. *Journal of Personal Finance* 13(2), 62 – 71.
- McGarry, K. (2004). Health and Retirement: Do Changes in Health Affect Retirement Expectations? *Journal of Human Resources* 39(3), 624–648.
- Mitchell, O. S. and G. S. Fields (1984). The Economics of Retirement Behavior. *Journal of Labor Economics* 2(1), 84–105.
- Munnell, A. H., W. Hou, and G. T. Sanzenbacher (2018, November). Trends in Retirement Security by Race/Ethnicity. Brief 18-21, Center for Retirement Research, Boston College.
- Murphy, J. L. (2013). Psychosocial Factors and Financial Literacy. *Social Security Bulletin* 73(1), 73–81.
- Murphy, J. L., A. Gourd, and F. Begay (2014, August). Financial Literacy Among American Indians and Alaska Natives. *Research and Statistics Notes* 2014-04.
- Olsen, A. and K. Whitman (2012). *An Overview of Contemporary Financial Education Initiatives Aimed at Minority Populations*, pp. 77–97. New York, NY: Springer New York.
- Palladino, L. M. (2022). The Contribution of Shareholder Primacy to the Racial Wealth Gap. *The Review of Black Political Economy* (forthcoming).
- Perez-Arce, F., L. Rabinovich, J. Yoong, and L. Alattar (2019). Three Little Words? The Impact of Social Security Terminology. CESR-Schaeffer Working Paper 2019-005, Los Angeles: USC.
- Peterson, J., B. A. Smith, and Q. 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, M. J. and A. 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, L., J. Peterson, and B. A. Smith (2017). Hispanics' Understanding of Social Security and the Implications for Retirement Security: A Qualitative Study. *Social Security Bulletin* 77(3).
- Rabinovich, L. and J. 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.
- Rodgers III, W. M. and L. Ricketts (2022, January). The Great Retirement: Who Are the Retirees? On the Economy Blog Post, Federal Reserve Bank of St. Louis, Institute on Economic Equity.
- Samek, A., A. Kapetyn, and A. Gray (2018). Using Consequence Messaging to Improve Understanding of Social Security. Working Paper 2018-383, Michigan Retirement Research Center.
- Sevak, P. and L. Schmidt (2014). Immigrants and Retirement Resources. *Social Security Bulletin* 74(1).
- Shu, S. and J. 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, B. 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, B. A. and K. A. Couch (2014). How Effective Is the Social Security Statement? Informing Younger Workers about Social Security. *Social Security Bulletin* 74(4), 1–19.
- Smythe, A. (2022, May). Child-to-Parent Intergenerational Transfers, Social Security, and Child Wealth Building. *AEA Papers and Proceedings* 112, 53–57.
- Spriggs, W. E. (1984). Afro-American Wealth Accumulation, Virginia 1900-1914. Dissertation, University of Wisconsin-Madison.
- Sun, W., G. Barboza, and K. Richman (2007). Latinos' Financial Literacy and Retirement Planning. *The Business Journal of Hispanic Research* 1(2), 54–68.
- Tamborini, C. R. and C. 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, R. H. and S. Benartzi (2004). Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving. *Journal of Political Economy* 112(S1), S164–S187.
- Torres, A., J. A. Muñoz, and R. Becerril (2016). Elderly Undocumented Latinos and Their Retirement Strategies. Working Paper, California State University, San Bernardino.
- Turner, J. A. and D. Rajnes (2021). Workers' Expectations About Their Future Social Security Benefits: How Realistic Are They? *Social Security Bulletin* 81(4), 1–17.

- Viceisza, A. C. G. (2022, In Progress). Black Women's Retirement Preparedness and Wealth. Policy Brief, The Urban Institute.
- Vitt, L. A. and B. 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, K. J., M. McCoy, K. Watkins, X. Chen, J. Kopusko, and M. 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, P. J., A. Lusardi, and A. 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, S. 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, J., L. Rabinovich, and S. H. Wah (2015, November). What Do People Know About Social Security? Working Paper 2015-022, University of Southern California.
- Yoong, J. K., A. A. Hung, S. H. Barcellos, L. Carvalho, and J. Clift (2019, October). Disparities in Minority Retirement Savings Behavior. Working paper, RAND.
- Young, J. H., C. R. Hudson, and E. L. Davis (2017). A Survey of Retirement Readiness Among African-Americans. *Journal of African American Studies* 21(4), 551–566.
- Zewde, N. (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.