## Social Security

## SOCIAL SECURITY BULLETIN

IN THIS ISSUE:
> Public Knowledge About the Social Security Retirement Program: Differences by Race and Ethnicity
, Why Are Women More Pessimistic About Social Security's Future Than Men?

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## Social Security Bulletin

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## Articles

1 Public Knowledge About the Social Security Retirement Program: Differences by Race and Ethnicity
by Richard E. Chard, Matt Messel, and David Rogofsky
Using data from the first three waves of the Understanding America Study, the authors examine how public knowledge of the Social Security retirement program helps individuals make optimal decisions about saving and the timing of benefit claiming. They use descriptive statistics to highlight differences in program knowledge by respondents' race and ethnicity as well as by age, education level, and sex. They also discuss the implications of their findings and suggest directions for future research.

11 Why Are Women More Pessimistic About Social Security's Future Than Men? by John A. Turner, Emily S. Andrews, and David Rajnes
This study explores the documented propensity of women to have more pessimistic expectations than men about future economic conditions in general and Social Security retirement benefits in particular. The authors present an extensive literature review covering research in psychology, economics, and an array of factors that may underlie gender differences in Social Security expectations. Then, they focus on a 2020 survey on Social Security expectations, first presenting selected detailed results, then conducting a multivariate regression analysis to test whether dispositional or socioeconomic factors exert greater influence on women's pessimistic expectations.

# Public Knowledge About the Social Security Retirement Program: Differences by Race and Ethnicity 

by Richard E. Chard, Matt Messel, and David Rogofsky*


#### Abstract

We use 2014-2021 survey data from the first three waves of the Understanding America Study to examine public knowledge of the Social Security retirement program. We present descriptive statistics and highlight differences in program knowledge by respondents' race or ethnicity as well as by age, education level, and sex. Social Security retirement benefits are the primary source of income for many people, and program knowledge helps individuals make optimal decisions about saving and the timing of benefit claiming. It is critical to understand any racialethnic disparities in retirement program knowledge and to develop solutions to address them. In this article, we find that people of color have significantly lower levels of Social Security retirement program knowledge than non-Hispanic White people. These program knowledge disparities persist across age and education levels and are compounded for women of color. We discuss the implications of these findings and suggest directions for future research.


## Introduction

Social Security benefits provide the majority of retirement income for more than half of Americans aged 65 or older (Dushi, Iams, and Trenkamp 2017). Structural inequities inside and outside the labor market have produced income and wealth disparities (Francis and Weller 2021; Oliver and Shapiro 2013). As a result, people of color tend to have fewer resources than nonHispanic White people when they reach retirement age. Consequently, Social Security benefits play an even greater role in retirement security for them than for non-Hispanic White people (Hendley and Bilimoria 1999; Rabinovich, Peterson, and Smith 2017).

Knowledge about the Social Security retirement program-that is, the Old-Age and Survivors Insurance (OASI) program—plays an important role in retirement security by helping individuals make optimal decisions about saving and the timing of benefit claiming (Gustman and Steinmeier 1999; Rohwedder and van Soest 2006). Research shows
that people tend to have high levels of knowledge about some OASI subject areas, such as the availability of survivor benefits, but less knowledge about others, such as how benefits are calculated (Alattar and others 2019). Previous studies also indicate that Black and Hispanic people are less knowledgeable about Social Security programs (Peterson, Smith, and Guan 2019; Yoong, Rabinovich, and Wah 2015) and inflation's effect on retirement savings (Greenwald and others 2010). It is important for researchers and policymakers to understand potential disparities in the public's knowledge about OASI and to develop solutions for addressing these disparities.

## Selected Abbreviations

OASI Old-Age and Survivors Insurance SSA Social Security Administration
UAS Understanding America Study

[^0]
## Methods

This section discusses our survey data source, the Understanding America Study (UAS), and our data compilation process.

## Data

The UAS is an internet-based panel managed by the University of Southern California. The Social Security Administration (SSA) has funded surveys of Social Security program knowledge (and respondents' preferred channels for receiving program information) as UAS components since 2014. When we conducted this analysis, the UAS panel comprised approximately 9,500 U.S. households who were selected using address-based sampling. The number of households in the UAS panel continues to increase over time. If needed, participants are provided a tablet computer and Internet access.
Panel members may respond to multiple surveys covering a wide range of topics, for which they receive nominal compensation. Researchers administer the Social Security program knowledge and information channel surveys on a rolling basis every 2 years to all new panel
members and to any current panel member who has not taken that survey for 2 years. ${ }^{1}$

## Sample

In this article, we use data from the first three waves of the Social Security program knowledge survey. If an individual participated in multiple survey waves, we used his or her most recent survey responses. More than 70 percent of the data in our analysis come from surveys completed in 2020 and 2021, and the remaining data come from 2014-2019 survey responses. We weighted results using specially calculated weights supplied by the UAS. ${ }^{2}$ These survey weights are benchmarked to the Current Population Survey's Annual Social and Economic Supplement to represent the adult noninstitutionalized U.S. population. Our sample includes 10,899 respondents. Of the weighted sample, 63.2 percent are non-Hispanic White, 11.7 percent are non-Hispanic Black, 16.6 percent are Hispanic or Latino, and 5.0 percent are Asian, Hawaiian, or Pacific Islander (Table 1). ${ }^{3}$ The remaining 3.4 percent of respondents include American Indians,

Table 1.
Demographic characteristics of study sample, by racial or ethnic group (in percent)

| Characteristic | $\begin{array}{r} \text { All } \\ \text { respondents } \end{array}$ | Non-Hispanic White | Non-Hispanic Black | Hispanic and Latino | Asian, Hawaiian, and Pacific Islander | American Indian, Alaska Native, and multiracial |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number (unweighted) | 10,899 | 7,185 | 887 | 1,707 | 533 | 587 |
| Percent (weighted) | 100.0 | 63.2 | 11.7 | 16.6 | 5.0 | 3.4 |
| Age |  |  |  |  |  |  |
| 18-29 | 15.4 | 12.0 | 13.5 | 26.0 | 23.1 | 22.1 |
| 30-49 | 38.4 | 34.2 | 43.8 | 47.6 | 43.5 | 45.4 |
| 50-61 | 20.8 | 21.5 | 25.0 | 15.8 | 19.3 | 19.0 |
| 62-69 | 13.4 | 16.5 | 10.3 | 6.9 | 7.7 | 7.1 |
| 70 or older | 12.1 | 15.8 | 7.5 | 3.7 | 6.5 | 6.3 |
| Education level |  |  |  |  |  |  |
| Less than high school | 8.9 | 8.1 | 10.0 | 12.2 | 6.1 | 9.0 |
| High school diploma | 30.6 | 33.0 | 29.5 | 27.5 | 14.0 | 28.6 |
| Some college | 27.7 | 25.1 | 34.6 | 36.0 | 14.9 | 29.2 |
| Bachelor's degree or higher | 32.8 | 33.8 | 25.9 | 24.4 | 65.0 | 33.4 |
| Sex |  |  |  |  |  |  |
| Men | 48.7 | 52.8 | 38.0 | 40.7 | 50.8 | 46.2 |
| Women | 51.3 | 47.2 | 62.0 | 59.3 | 49.4 | 53.8 |
| Annual household income |  |  |  |  |  |  |
| Less than \$50,000 | 40.8 | 36.5 | 55.8 | 47.2 | 35.5 | 46.0 |
| \$50,000-74,999 | 15.5 | 16.4 | 13.5 | 13.8 | 12.8 | 17.0 |
| \$75,000-99,999 | 12.4 | 13.4 | 10.3 | 11.3 | 11.6 | 8.2 |
| \$100,000 or more | 31.3 | 33.7 | 20.4 | 27.7 | 40.2 | 28.8 |

SOURCE: Authors' calculations using UAS survey results for 2014-2021.

Alaska Natives, and those who identify as multiracial. ${ }^{4}$ Non-Hispanic White respondents tend to be older than respondents of other racial or ethnic backgrounds. For instance, 73.6 percent of Hispanic and Latino respondents and 66.6 percent of Asian, Hawaiian, and Pacific Islander respondents are younger than 50, compared with 46.2 percent of non-Hispanic White respondents.

## The UAS Survey of Social Security Program Knowledge

The survey covers respondents' general understanding of the OASI program as well as their specific program knowledge related to benefit claiming ages. ${ }^{5}$ In this article, we focus on general program knowledge in eight different subject areas as well as knowledge specific to benefit claiming ages in six different subject
areas. Box 1 lists the survey questions, arranged by subject area, and gives the possible answer choices and the correct responses. We measure retirement program knowledge as the percentage of these 14 questions a respondent answers correctly and show the results as the average percentage of correct responses for all individuals in a given demographic group.

## Findings

We present descriptive findings on respondents' knowledge about the Social Security retirement program by race and ethnicity. We further examine these findings by age, educational level, and sex across racial-ethnic groups.

\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{\begin{tabular}{l}
Box 1. \\
Individual OASI program knowledge survey questions
\end{tabular}} \\
\hline Subject area \& Question and answers \\
\hline \multicolumn{2}{|l|}{General program knowledge} \\
\hline Age adjustment \& \begin{tabular}{l}
The amount of Social Security retirement benefits is not affected by the age at which someone starts claiming.
True \\
\(\square\) False
\end{tabular} \\
\hline Benefit calculation \& \begin{tabular}{l}
Which of the following best describes how a worker's Social Security benefits are calculated? \\
\(\square\) They are based on how long you work as well as your pay during the last five years that you are employed.

<br>
They are based on the average of the highest 35 years of your earnings. <br>
They are based on how much Social Security taxes you paid.
They are based on your income tax bracket when you claim benefits.
\end{tabular} <br>

\hline Child survivor benefits \& | If a worker who pays Social Security taxes dies, any of his/her children under age 18 may claim Social Security survivor benefits. |
| :--- |
| $\square$ True |
| $\square$ False | <br>


\hline Claiming upon retirement \& | Social Security benefits have to be claimed as soon as someone retires. |
| :--- |
| $\square$ True $\square$ False | <br>


\hline Inflation adjustment \& | Social Security benefits are adjusted for inflation. |
| :--- |
| True |
| $\square$ False | <br>

\hline Payroll tax \& Social Security is paid for by a tax placed on both workers and employers. <br>

\hline Spousal benefits \& | Someone who has never worked for pay may still be able to claim benefits if his or her spouse qualifies for Social Security. |
| :--- |
| True False | <br>

\hline Widow(er) benefits \& If a worker who pays Social Security taxes dies, his/her spouse may claim Social Security survivor benefits only if they have children.
True False <br>
\hline
\end{tabular}

\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{\begin{tabular}{l}
Box 1. \\
Individual OASI program knowledge survey questions-Continued
\end{tabular}} \\
\hline Subject area \& Question and answers \\
\hline \multicolumn{2}{|l|}{Specific benefit claiming age knowledge} \\
\hline Early eligibility age \& \begin{tabular}{l}
One of the terms used by Social Security is early eligibility age, or EEA. To the best of your knowledge, what is your personal earliest eligibility age for claiming Social Security retirement benefits? \\
The correct answer is 62 .
\end{tabular} \\
\hline Full retirement age \& \begin{tabular}{l}
Another term used by Social Security is full retirement age, or FRA. To the best of your knowledge, what is your personal full retirement age? \\
The correct answer ranges between 65 and 67, depending on the respondent's birth year (see https://www.ssa.gov/policy/docs/statcomps/supplement/2022/2a8-2a19.html\#table2.a17.1).
\end{tabular} \\
\hline Relationship between retiring and claiming Social Security benefits \& Based on Social Security guidelines, what is the relationship between the age at which you stop working and the age at which you can begin claiming benefits?
Both occur at the same age.
The age at which you stop working should be first.
The Social Security claiming age should be first.
Any of these combinations are acceptable. \\
\hline Delayed retirement credits (DRCs) \& One of the factors that can affect your monthly benefits are the so-called DRCs. Which one of the following statements is correct?
The DRCs are a bonus on Social Security benefits for people who have worked for at least 40 years.
The DRCs indicate by what percentage monthly benefits increase if one waits until after FRA to claim benefits.
The DRCs are an increase in benefits that comes from earning income by working after age 62. \\
\hline Eligibility age for DRCs \& When are/were you first eligible to claim DRCs from the Social Security program?
Early Eligibility Age (EEA)
Full Retirement Age (FRA)

$\qquad$ years old (enter number) <br>
\hline Age DRCs stop \& At what age would you stop earning DRCs? The correct answer is 70. <br>
\hline
\end{tabular}

SOURCE: UAS 16, 94, and 231 questionnaires.
NOTES: Some of the questionnaire's wording has been slightly modified for contextual clarity.
Correct answers are noted or indicated by $\downarrow$

## Program Knowledge by Race and Ethnicity

Table 2 presents by race and ethnicity the average percentages of correct responses to all OASI program knowledge questions, general program questions, and specific benefit claiming age questions. The table includes age-adjusted results alongside the unadjusted results because OASI program knowledge tends to be greater among people approaching retirement age than among younger people (Alattar and others 2019). ${ }^{6}$ Overall, participants answered 50.7 percent of the OASI questions correctly. Respondents were more knowledgeable about general program areas
(70.6 percent correct) than about benefit claiming age areas ( 24.2 percent correct). People of color had significantly lower levels of overall retirement program knowledge than non-Hispanic White respondents, even when adjusting for age. Non-Hispanic White respondents answered 53.9 percent of all questions correctly, compared with 48.8 percent for Asian, Hawaiian, and Pacific Islander respondents, 45.3 percent for non-Hispanic Black respondents, and 43.3 percent for Hispanic and Latino respondents. ${ }^{7}$ Although each of these differences are statistically significant, the magnitudes of the differences are small, particularly

## Table 2.

Average percentages of correct survey responses, by racial or ethnic group

| Group | Unadjusted | Age-adjusted |
| :--- | :---: | :---: |
|  | All questions combined |  |
| All respondents | 50.7 | $\ldots$ |
| Non-Hispanic White (reference category) | 53.9 | $\ldots$ |
| Non-Hispanic Black | $45.3^{*}$ | $46.8^{*}$ |
| Hispanic and Latino | $43.3^{*}$ | $46.4^{*}$ |
| Asian, Hawaiian, and Pacific Islander | $48.8^{*}$ | $51.1^{*}$ |
| American Indian, Alaska Native, and multiracial | $48.9^{*}$ | $53.3^{*}$ |

General program questions

| All respondents | 70.6 | $\ldots$ |
| :--- | :--- | :---: |
| Non-Hispanic White (reference category) | 73.9 | $\ldots$ |
| Non-Hispanic Black | $65.8^{*}$ | $67.1^{*}$ |
| Hispanic and Latino | $68.4^{*}$ | $65.7^{*}$ |
| Asian, Hawaiian, and Pacific Islander | $69.8^{*}$ | $69.6^{*}$ |
| American Indian, Alaska Native, and multiracial | 72.5 |  |

## Specific benefit claiming age questions

| All respondents | 24.2 | $\ldots$ |
| :--- | :--- | :---: |
| Non-Hispanic White (reference category) | 27.4 | $\ldots$ |
| Non-Hispanic Black | $18.0^{*}$ | $19.7^{*}$ |
| Hispanic and Latino | $17.2^{*}$ | $20.5^{*}$ |
| Asian, Hawaiian, and Pacific Islander | $23.1^{*}$ | $26.1^{*}$ |
| American Indian, Alaska Native, and multiracial | $21.1^{*}$ | $24.3^{*}$ |

SOURCE: Authors' calculations using UAS survey results for 2014-2021.
NOTES: . . . = not applicable.

* $=$ difference from reference category is statistically significant at the 0.05 level.
between non-Hispanic White and Asian, Hawaiian, and Pacific Islander respondents. The differences remain significant, however, even when controlling for age differences between racial-ethnic groups. ${ }^{8}$ People of color also had, on average, lower levels of general program knowledge than non-Hispanic White respondents. However, on questions about Social Security claiming ages, age-adjusted results for Asian, Hawaiian, and Pacific Islander respondents were about the same as those for non-Hispanic White respondents.


## Further Differences in Overall Program Knowledge by Age, Education Level, and Sex

Table 3 also presents the percentages of correct responses to all OASI program knowledge questions but provides further subgroup breakdowns by age, education level, and sex. ${ }^{9}$

Age. Within each racial-ethnic group, retirement program knowledge increases with age. However, racial and ethnic disparities in program knowledge persist across age groups. ${ }^{10}$ Disparities are larger for
people approaching retirement age (50-61) than for younger people. The average difference in correct responses between non-Hispanic White and nonHispanic Black respondents is 2.2 percentage points for those aged 18-29 and 10.3 percentage points for those aged 50-61. The average difference in correct responses between respondents in the non-Hispanic White group and those in the Hispanic and Latino group is 4.9 percentage points for those aged 18-29 and 9.0 percentage points for those aged $50-61$. This could suggest that non-Hispanic White people face fewer barriers or have more opportunities to learn about Social Security programs than do people of other races and ethnicities as they approach retirement age. It could also suggest a cohort effect, in which disparities in retirement program knowledge are smaller for younger cohorts than for older ones. Only longitudinal analysis of retirement program knowledge by race and ethnicity could elucidate the reason for the widening knowledge gap by age.

Table 3
Average percentages of correct survey responses, by racial or ethnic group, age, education level, and sex

| Characteristic | $\begin{array}{r} \mathrm{All} \\ \text { respondents } \end{array}$ | Non-Hispanic White | Non-Hispanic Black | Hispanic and Latino | Asian, Hawaiian, and Pacific Islander | American Indian, Alaska Native, and multiracial |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 50.7 | 53.9 | 45.3 | 43.3 | 48.8 | 48.9 |
| Age |  |  |  |  |  |  |
| 18-29 | 39.9 | 41.5 | 39.3 | 36.6 | 42.6 | 39.9 |
| 30-49 | 47.1 | 49.5 | 43.0 | 42.8 | 47.8 | 47.2 |
| 50-61 | 53.7 | 56.5 | 46.2 | 47.5 | 53.5 | 54.4 |
| 62-69 | 60.5 | 62.1 | 54.1 | 53.1 | 56.3 | 63.6 |
| 70 or older | 59.6 | 60.8 | 54.1 | 52.7 | 54.6 | 55.4 |
| Education level ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Less than high school | 41.4 | 44.2 | 38.9 | 36.4 | 38.3 | 38.6 |
| High school diploma | 48.5 | 51.3 | 40.1 | 41.6 | 41.4 | 45.7 |
| Some college | 51.4 | 54.8 | 48.1 | 44.9 | 50.4 | 48.1 |
| Bachelor's degree or higher | 57.5 | 60.6 | 50.9 | 49.2 | 52.5 | 57.2 |
| Sex |  |  |  |  |  |  |
| Men | 53.3 | 56.0 | 46.3 | 45.5 | 49.8 | 52.2 |
| Women | 48.3 | 51.6 | 44.7 | 41.3 | 47.8 | 46.1 |

SOURCE: Authors' calculations using UAS survey results for 2014-2021.
a. Excludes respondents younger than 25 .

Education level. Table 3 also shows that within each racial-ethnic group, retirement program knowledge is greater for people with higher levels of education. For instance, non-Hispanic Black respondents with a bachelor's degree answered an average of 50.9 percent of questions correctly, compared with 38.9 percent for those without a high school diploma. At each educational level, however, non-Hispanic White respondents had significantly higher levels of knowledge than respondents in other racial-ethnic groups. For instance, among people with a bachelor's degree or higher, nonHispanic White respondents scored 11.4 percentage points higher than Hispanic and Latino respondents ( 60.6 percent versus 49.2 percent correct). Among those without a high school diploma, non-Hispanic White respondents scored 7.8 percentage points higher than Hispanic and Latino respondents ( 44.2 percent versus 36.4 percent correct). This suggests that program knowledge disparities between non-Hispanic White people and people of color are not explained entirely by differences in educational opportunities. ${ }^{11}$

Differences in retirement program knowledge by education level also reveal heterogeneity within each racial-ethnic group. The increase in knowledge for respondents with a bachelor's degree versus those
with only a high school education is particularly large among Asian, Hawaiian, and Pacific Islander respondents (11.1 percentage points) and non-Hispanic Black respondents ( 10.8 percentage points). However, the increase across these education levels is somewhat smaller among Hispanic and Latino respondents (7.6 percentage points). Future research could explore educational (and other) factors underlying heterogeneity in retirement program knowledge within racialethnic groups.

Sex. Within each racial-ethnic group, men tend to have slightly greater retirement program knowledge than women. This difference is larger among nonHispanic White respondents (4.4 percentage points) and Hispanic and Latino respondents ( 4.2 percentage points). By contrast, the difference is smaller among Asian, Hawaiian, and Pacific Islander respondents ( 2.0 percentage points) and non-Hispanic Black respondents ( 1.6 percentage points). Women of color tend to have the lowest levels of retirement program knowledge. Program knowledge among Hispanic and Latino women is 14.7 percentage points lower than that of non-Hispanic White men ( 41.3 percent versus 56.0 percent correct). These intersecting program knowledge disparities by race and
ethnicity and sex suggest that women of color are an important target for information interventions.

These UAS data indicate that people of color have significantly lower levels of retirement program knowledge than non-Hispanic White people. These disparities persist at different ages and levels of education, and they are compounded for women of color.

## Conclusion

OASI program knowledge helps people make optimal saving and benefit claiming decisions (Gustman and Steinmeier 1999; Rohwedder and van Soest 2006). In this article, we used data from the UAS to measure the public's knowledge about the Social Security retirement program by race and ethnicity. Overall, U.S. adults were able to correctly answer only slightly more than half ( 50.7 percent) of questions covering various OASI program areas. We found significant racialethnic disparities in retirement program knowledge that persist across age groups and education levels and are compounded for women of color. Because these disparities may have real world consequences for the retirement security of people of color, understanding these program knowledge disparities in greater depth is an important research aim. Knowledge of specific topics involving benefit claiming ages was particularly low among non-Hispanic Black and Hispanic or Latino respondents, with both groups answering about 20 percent of questions correctly. Because understanding the optimal age to claim benefits can affect Social Security benefit levels and financial security in retirement, further research could investigate possible causes and policy responses.

Our preliminary findings point toward three potential directions for future research. First, it is important to understand the structural barriers that create disparities in retirement program knowledge by race and ethnicity, including unequal educational opportunities. Because of systemic racial discrimination in the United States, people of color have fewer educational opportunities on average than White people (Noguera, Pierce, and Ahram 2015). Because OASI program knowledge is related to educational attainment, structural barriers to educational opportunity likely play a role in program knowledge disparities by race and ethnicity. Still, program knowledge disparities exist at each educational level. For instance, the difference in program knowledge between respondents in the non-Hispanic White group and those in the

Hispanic and Latino group or the non-Hispanic Black group is roughly 10 percentage points at both the high school diploma and bachelor's degree levels (Table 3). This suggests that structural barriers beyond unequal educational opportunities play a role in disparities in retirement program knowledge by race and ethnicity.

Myriad structural barriers, such as unequal access to retirement planning information provided in workplaces (Francis and Weller 2021), language barriers when information is not readily available in a person's primary language (Rabinovich, Peterson, and Smith 2017), or unequal access to program information across social networks that are segregated by race and sex (McDonald and Day 2010), may be driving retirement program knowledge disparities. Further exploration of quantitative data, such as those provided in the UAS, may provide additional insight. Nevertheless, an in-depth exploration of the structural barriers that drive program knowledge disparities may require qualitative research that extends beyond what is available in current surveys. These qualitative studies could focus on specific racial or ethnic groups, identifying relevant factors and potential solutions for addressing barriers to obtaining OASI program knowledge. One example of such qualitative research is Rabinovich, Peterson, and Smith (2017). Their study, based on the UAS sample, found that Hispanic people of different ancestry groups (Mexican, Puerto Rican, and Cuban) are interested in having access to additional Spanish-language information resources about Social Security programs.

Second, it is important to understand how retirement program knowledge disparities develop across the life course. The preliminary finding that program knowledge disparities by race and ethnicity are larger among people approaching retirement age (aged 50-61) is concerning. During these years, many people develop saving and benefit claiming plans that predict their future retirement security. Because our study is cross-sectional, it cannot differentiate whether the larger program knowledge disparities for people aged 50-61 are due to an accumulating disadvantage in learning about Social Security among people of color or to cohort effects (which would suggest that program knowledge disparities are smaller for younger cohorts). Additional waves of the UAS program knowledge survey may provide a longitudinal basis to understand how retirement program knowledge disparities develop over the life course.

Finally, future research could focus on access to retirement program information among women of color, who showed low levels of retirement program knowledge in the UAS survey. A large body of literature demonstrates how women with intersecting identities, such as race and sex, are negatively affected by structural barriers, such as diminished labor market opportunities (Moore and Ghilarducci 2018) and diminished retirement security (Lahey 2018). Little research to date has examined whether and how these disparities affect access to Social Security program information. Some research has focused on access to general retirement planning information among women of color (Angel, Prickett, and Angel 2014; Joo and Pauwels 2002). This research could provide direction for studies on access to OASI program information. Again, efforts to understand how intersecting identities relate to retirement program knowledge disparities may benefit from a qualitative approach that explores how experiences vary for women of different racial and ethnic backgrounds, ancestry groups, income levels, and geographic areas, among other potential factors.

It is also important to research potential solutions addressing these disparities. The Social Security information channels survey in the UAS provides one path to do so. In a forthcoming study, we will investigate the use of and attitudes toward different channels of information on retirement planning in general and Social Security benefit planning in particular across different racial and ethnic backgrounds. These information channels include employers, financial planners, and SSA, among others. By measuring differences in the perceived accessibility, understandability, and accuracy of these information channels, we will explore opportunities to use these channels to reduce both the retirement program knowledge disparities and the barriers to their use that may exist for certain racial or ethnic groups.

Appendix A
Table A-1.
Average percentages of correct survey responses, by detailed racial or ethnic group

| Group | Percent <br> correct |
| :--- | ---: |

All questions combined

| All respondents | 50.7 |
| :--- | :--- |
| Non-Hispanic White (reference category) | 53.9 |
| Non-Hispanic Black | $45.3^{*}$ |
| Hispanic and Latino | $43.3^{*}$ |
| Asian, Hawaiian, and Pacific Islander | $48.8^{*}$ |
| Asian | $49.1^{*}$ |
| Hawaiian and Pacific Islander | $36.9^{*}$ |
| American Indian, Alaska Native, and multiracial | $48.9^{*}$ |
| American Indian and Alaska Native | $41.5^{*}$ |
| More than one race | $50.0^{*}$ |

## General program questions

All respondents 70.6
Non-Hispanic White (reference category) 73.9
Non-Hispanic Black 65.8*
Hispanic and Latino 62.4*
Asian, Hawaiian, and Pacific Islander 68.0*
Asian 68.3*
Hawaiian and Pacific Islander 55.2*
American Indian, Alaska Native, and multiracial 69.8*
American Indian and Alaska Native 62.5*
More than one race 70.8*

## Specific benefit claiming age questions

| All respondents | 24.2 |
| :--- | :--- |
| Non-Hispanic White (reference category) | 27.4 |
| Non-Hispanic Black | $18.0^{*}$ |
| Hispanic and Latino | $17.2^{*}$ |
| Asian, Hawaiian, and Pacific Islander | $23.1^{*}$ |
| Asian | $23.4^{*}$ |
| Hawaiian and Pacific Islander | $12.5^{*}$ |
| American Indian, Alaska Native, and multiracial | $21.1^{*}$ |
| American Indian and Alaska Native | $13.4^{*}$ |
| More than one race | $22.2^{*}$ |

SOURCE: Authors' calculations using UAS survey results for 2014-2021.
NOTE: * = difference from reference category is statistically significant at the 0.05 level.

## Notes

Acknowledgments: The authors thank Laith Alattar, Sofia Ayala, Robert Weathers, and Mark Sarney for their helpful comments and suggestions.
${ }^{1}$ Alattar, Messel, and Rogofsky (2018) provide additional information on UAS methodology.
${ }^{2}$ Alattar, Messel, and Rogofsky (2018) explain: "Poststratification weights are created using a raking algorithm. The algorithm compares relative frequencies within the target population with relative frequencies in the survey sample by race, sex and age, sex and education, household size and total household income, census region, and urbanicity. When a researcher combines responses from two or more UAS surveys, the UAS team will provide weights unique to the combined data set based on the procedure described above. Alternatively, the UAS team can provide custom poststratification weights using specific raking factors chosen by the researcher."
${ }^{3}$ We chose to combine the Asian population with the Hawaiian and Pacific Islander population to create a sample size large enough to measure knowledge by demographic factors, such as age, education, and sex. Of the 533 respondents in the combined category, 502 identified as Asian and 31 as Hawaiian or Pacific Islander.
${ }^{4}$ In these categories, 475 individuals identified as more than one race and 112 individuals identified as American Indian or Alaska Native.
${ }^{5}$ Although the survey also explores respondents' knowledge of the disability programs that SSA administers (Disability Insurance and Supplemental Security Income), this study focuses exclusively on OASI program knowledge.
${ }^{6}$ For the age adjustments, we reweight each racial-ethnic group to match the age composition of non-Hispanic White respondents.
${ }^{7}$ Appendix Table A-1 repeats Table 2 with additional detail for racial-ethnic groups that we collapsed for our analysis: namely, the Asian, Native Hawaiian and Pacific Islander, American Indian and Alaska Native, and multiracial subgroups. With results unadjusted for age, Table A-1 shows that respondents in the Hawaiian and Pacific Islander subgroup and in the American Indian and Alaska Native subgroup have less OASI program knowledge than other groups do, with overall scores of 36.9 percent and 41.5 percent, respectively, compared with 53.9 percent among non-Hispanic White respondents.
${ }^{8}$ We do not adjust by factors such as education and sex, which are also associated with OASI program knowledge. Some of the racial-ethnic groups in our sample (such as the non-Hispanic Black group and the Hispanic and Latino group) comprise higher percentages of women and lower percentages of individuals with a bachelor's degree, which are associated with lower levels of retirement program
knowledge. Consequently, some of the program knowledge disparities we identify across racial-ethnic groups may also be due to disparities by education or sex. Because this is a descriptive article and structural barriers create program knowledge disparities by race and ethnicity as well as by educational attainment and sex, we leave these additional factors unadjusted. Instead, we provide statistics on program knowledge differences, considering the intersectionality between race and ethnicity, educational attainment, and sex (in Table 3). We believe that these descriptive statistics may be one step toward further investigation of the structural barriers that exist at different intersections of race, ethnicity, educational attainment, and sex.
${ }^{9}$ We omit age-adjusted figures from Table 3 because they do not change the statistical significance relative to the unadjusted findings.
${ }^{10}$ The exception is that non-Hispanic White respondents and Asian, Hawaiian, and Pacific Islander respondents aged 18-29 have similar levels of knowledge, on average.
${ }^{11}$ We found that the knowledge differences at the high school diploma, some college, and bachelor's degree or higher levels were significant, even when accounting for age differences between racial-ethnic groups. The sample size for the population with less than a high school education was not large enough to conduct this analysis.

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# Why Are Women More Pessimistic About Social Security’s Future Than Men? 

by John A. Turner, Emily S. Andrews, and David Rajnes*


#### Abstract

We review an extensive literature on economic expectations and analyze data from AARP's 2020 survey of public opinion about the future of Social Security to investigate why women are more pessimistic than men. Our empirical analysis suggests that the gender difference in pessimism about Social Security's future is not because of innate or dispositional differences, but can be largely explained by socioeconomic factors such as education and earnings differences.


## Introduction

In studies of public expectations about the future of the Social Security Old-Age and Survivors Insurance (OASI) program, researchers have found that women are more pessimistic than men. In this article, we review an extensive literature and apply an original analysis of survey data from 2020 to examine why men's and women's Social Security expectations differ. ${ }^{1}$ We consider economic and behavioral explanations for those differences, such as the potential role of economic vulnerability. If women or men have unrealistically pessimistic or optimistic Social Security expectations, they may make poor decisions about how much to save for retirement. They may also view their Social Security benefits as less or more valuable than they are (Burkhauser and Turner 1985).

Statistically, men and women face different prospects for their future Social Security benefits. For example, women typically rely on Social Security benefits for longer periods than men. In 2020, women who reached age 65 were expected to live, on average, an additional 23.9 years, compared with 21.4 years for men. ${ }^{2}$ Women represented 55.3 percent of OASI beneficiaries aged 62 or older and 63.9 percent of beneficiaries aged 85 or older. Yet the median earnings of women aged 15-64 who worked full-time for 50 weeks or more in 2019 were $\$ 45,000$, compared
with $\$ 54,000$ for men. Correspondingly, the average annual Social Security benefit received by women aged 65 or older was $\$ 13,505$ in 2019, compared with $\$ 17,374$ for men. If Social Security did not also provide benefits to spouses, divorced ex-spouses, and widow(er)s of covered workers-most of which are paid to women - the retirement income gap would be wider still (Social Security Administration [SSA] 2021a). ${ }^{3}$

This introduction is followed by a literature review presented in three parts, moving from general issues of pessimism or optimism and economic expectations to expectations about Social Security benefits and then to expectations about Social Security system solvency. The first part of the literature review, divided into five subsections, covers psychological and socioeconomic factors underlying expectations about economic conditions in general. Then, a section explores the types of risks to Social Security benefits faced by all future beneficiaries, which may differ between women

## Selected Abbreviations

OASI Old-Age and Survivors Insurance
SES socioeconomic status
SSA Social Security Administration

[^1]and men. Part two of the literature review focuses on expectations about one's Social Security benefits, divided into subsections examining each of four factors that potentially underlie gender differences. Part three concludes the literature review by turning to focus on issues related specifically to the solvency of the Social Security trust fund and on gender differences in those expectations.

The literature review is followed by a section that uses detailed information from AARP's $85^{\text {th }}$ Anniversary of Social Security Survey (Perron 2020) to analyze gender differences in Social Security expectations. In two subsections, we first present selected survey results in detail; then, we describe our multivariate analysis and present the results of our logistic regressions. A concluding section summarizes our findings. ${ }^{4}$

## Literature Review Part I:

 Psychological and Economic ResearchThis section addresses research on how expectations are formed and acted on. It is arranged in five subsections. The first subsection briefly reviews literature on the psychology of optimism and pessimism. The second subsection reviews studies examining expectations about specific economic variables, which may provide insight into expectations about Social Security. The third subsection discusses the literature exploring gender differences in economic expectations. The fourth subsection discusses the effects of income and education on expectations. The fifth subsection discusses whether gender differences in trust in government might play a role in Social Security expectations.

## The Psychology of Optimism and Pessimism

Psychologists define dispositional pessimism as a general tendency to expect negative outcomes (Carver, Scheier, and Segerstrom 2010) and many studies have examined whether the tendency is more prevalent on some topics or among some groups than others. Perozek (2008) found that women are more likely to underestimate their life expectancy than men but did not explore reasons for the difference. Comerford (2021) posited that differences in predicted life expectancy might be related to the fact that women have a higher probability of living to an older age than men, rather than reflecting an innate gender difference in pessimism.

Hinz and others (2017) used a standard psychological instrument ${ }^{5}$ to test for gender differences in
dispositional optimism and pessimism in a sample of 10,000 German adults. The authors treated optimism and pessimism as two distinct factors rather than a locus along a single continuum. They found that men were slightly less optimistic than women, but there were no gender differences in dispositional pessimism. Extremera, Durán, and Rey (2007) used a different psychological test but likewise considered optimism and pessimism as distinct factors. Studying Spanish adolescents, they found that girls were both more pessimistic and less optimistic than boys. Heinonen and others (2006), using the same test that Hinz and others used in their 2017 study, found that dispositional optimism was linked to childhood socioeconomic status (SES).

Differences in optimism and pessimism might be innate, or the result of childhood experiences or adult socioeconomic circumstances, or a combination of these factors. Further, they can vary depending on the object of one's expectations. Based on their literature survey, Chopik and others (2020) wrote that optimism (or pessimism) is partially heritable but is also influenced by life events and circumstances.

## Economics Literature Addressing Expectations

Bordalo, Gennaioli, and Shleifer (2016) presented a "diagnostic expectations" model that explores a behavioral tendency to overreact to incoming negative news and form excessively pessimistic expectations. However, the study did not examine gender differences in diagnostic expectations. Norr (2017) attributed the negative views of some U.S. workers on the future of Social Security to "negativity bias," or a tendency to exaggerate negative information, such as widely available news or opinions about the need for Social Security reform to preserve program solvency. According to AARP, 19 percent of survey respondents incorrectly believed that the potential depletion of the Social Security trust fund reserve would leave the system unable to pay any benefits (Williams 2015).

Burke and Manz (2014) found that economic literacy among survey respondents was positively associated with an ability to forecast inflation accurately, irrespective of sex and other socioeconomic characteristics. In particular, the forecasts of respondents with lower economic literacy tended to overestimate price increases. This finding suggests that different levels of knowledge about the financing of the Social Security program may help to explain differences in expectations.

## Gender Differences in Economic Expectations

Harris, Jenkins, and Glaser (2006) argued that in evaluating negative expectations, it is helpful to distinguish between the probability of a negative occurrence and the severity of its consequences. The authors studied risky behavior and found that women tend to assume that a negative outcome is more probable than men do, yet for the expected severity of negative outcomes, the results were mixed. Marin and others (2012) found that women are more likely than men to remember, and to experience stress from, negative news.

Jacobsen and others (2014) found that men are more optimistic than women on a broad range of economic topics, including the stock market, economic growth, interest rates, and inflation. Gender differences persist after statistically controlling for other characteristics such as income, employment status, wealth, education, and marital status. The authors found that women are less optimistic than men about being able to retire at an age that is acceptable to them.

Bryan and Venkatu (2001) found that women perceive higher rates of past inflation and predict higher future inflation than men, even after controlling for age, education, income, marital status, and race. The authors found that gender differences in inflation perceptions may be influenced by prices of specific goods, such as gasoline, as well as by general perceptions. Consumers who purchase different baskets of goods have different experiences of price increases and form inflation expectations that vary demographically based on those experiences (Jonung 1981). Bjuggren and Elert (2019) found that men in Sweden are more optimistic about the economy than women.

Wong and Hardy (2009) studied women's expectations about retirement and found substantial heterogeneity in expected retirement ages both for different individuals in a given time and for the same individuals over a 7 -year period. Same-person fluctuations suggested considerable uncertainty and variability in expectations about retirement income and Social Security benefits over time.

## Effects of Income and Education on Expectations

Das, Kuhnen, and Nagel (2017) found that people with higher SES are more optimistic about future macroeconomic developments such as business conditions, the unemployment rate, and stock market returns. Conversely, low-SES individuals report excessively
pessimistic expectations compared with those of professional forecasters and historical data.

Extending Das, Kuhnen, and Nagel's findings to Social Security, our study suggests that people with low SES may also be more pessimistic about their future benefits than people with higher SES. To the extent that women have lower SES than men, their expectations would presumably be more pessimistic. In the United States, women, on average, have lower income, fewer hours and years worked, and lowerearning careers than men, in part because they are more likely to pause their careers to care for family members (Erosa and others 2022). We discuss our empirical findings on these themes later.

Providing evidence on the economic differences between men and women, Table 1 shows real median annual earnings (in 2019 dollars) for men and women aged 50-59 in 1989 and 2019. In both years, real median earnings were substantially lower for women than for men. However, women's real median earnings as a percentage of men's rose substantially, from 48.9 percent to 67.4 percent. Over the period, real median earnings increased from $\$ 30,210$ to $\$ 39,940$ for women but decreased for men, from $\$ 61,820$ to $\$ 59,220$.

Mercer CFA Institute (2021, Chapter 4), studying the retirement income systems of 43 countries and defining pension income to include Social Security benefits, identified a gender pension gap in every country's retirement system. The study found that women's average pension income in the United States is approximately 34 percent lower than men's because women have lower earnings and more career pauses for family caregiving.

The wage gap influences gender differences in poverty. Although the difference in U.S. men's and women's poverty rates narrows from ages 35 to 64 ,

Table 1.
Real median earnings for men and women aged 50-59: 1989 and 2019

| Measure | 1989 | 2019 |
| :--- | ---: | ---: |
| Real median earnings (2019 \$) |  |  |
| $\quad$ Women | 30,210 | 39,940 |
| $\quad$ Men | 61,820 | 59,220 |
| Women's earnings as a <br> percentage of men's | 48.9 | 67.4 |

SOURCE: Authors' calculations based on administrative data from SSA.
the gap widens at older ages. More than one in eight women ( 13.2 percent) aged 75 or older live in poverty, compared with 8.8 percent of men (Bleiweiss, Boesch, and Gaines 2020). Mortality rates are higher for people in poverty than for those who are not. When measuring the poverty risk of the aged, correcting for this mortality difference (thereby avoiding a survivorship sample selection bias) increases the estimated risk relative to an estimate based on traditional poverty measures, for both men and women (Muller and Turner 2022). In other words, traditional measures understate the risk of falling into poverty at older ages because disproportionate shares of people in poverty at younger ages leave the sample because of their relatively high mortality. This effectively reduces the gender gap in poverty because men's higher mortality rates cause a greater sample selection bias for men than for women.

To the extent that people with lower incomes are more likely to have negative economic expectations across a range of variables, gender differences in economic circumstances may help explain findings that women tend to have more negative expectations about Social Security than men. Thus, greater negativity about Social Security among women may reflect a general pattern in male-female differences in economic expectations.

## Trust in Government

The literature we review identifies gender differences in financial and economic expectations. By contrast, McDermott and Jones (2020) did not find gender differences in their literature review on trust in government. Thus, issues of trust presumably do not affect the gender differences in pessimism about Social Security's future.

## How Women's and Men's Social Security Risks Differ

To some extent, men and women face different potential risks to future Social Security benefits. These risks can be divided into three types. The first type, political risk, relates to any future changes in Social Security legislation. Such changes would be motivated primarily by the need to restore long-term solvency to the Social Security trust funds and could alter the distributions of program contributions and benefits. The second is future earnings risk, discussed in more detail in a following section. The third is temporal risk, or the length of time an individual is exposed to the other Social Security risks. The temporal risk
is greater for women than for men because of their longer life expectancy.

We explore the extent to which these risks, or the perception of them, vary by sex. For example, political risks may vary in part because women generally have lower lifetime earnings and, for that reason, depend more than men on Social Security benefits in retirement. Thus, the risk related to any future legislated changes in Social Security benefits may be greater for women than for men.

## Literature Review Part II: Factors Underlying Gender Differences in Social Security Expectations

Recent research on workers' expectations about their future Social Security benefits includes an international study (Turner and others 2019) and a U.S. study (Turner and Rajnes 2021). This article extends that research by focusing on gender differences in Social Security expectations. This section continues the literature review by exploring the specific factors that may underlie those gender differences.

## Level of Information

Surveys that address specific Social Security topics indicate that U.S. workers generally have limited knowledge about the program, particularly regarding how benefits are calculated (Lusardi and Mitchell 2007; Greenwald and others 2010; Yoong, Rabinovich, and Wah 2015). A 2021 survey found that, in general, men correctly answered specific questions about Social Security, such as whether benefits are protected from inflation, more often than women (Nationwide Retirement Institute 2021). Surveys have also determined that women generally have lower financial literacy test scores than men (Lusardi and Mitchell 2007).

In their literature review, Turner and Rajnes (2021) found that people with lower incomes tend to be more pessimistic about the amount of their future Social Security benefit. However, women's expectations might partially reflect conservatism in planning rather than pessimism alone. People who underestimate their future Social Security benefits may increase their retirement savings, leading to a better-funded and more diversified retirement portfolio.

AARP's 2015 survey on Social Security and retirement expectations likewise found that women were more pessimistic than men about the future of Social Security (Williams 2015). When asked to respond to the statement, "Social Security will not be there
for you when you need it," 72 percent of women and 56 percent of men agreed. To a parallel statement, "Social Security won't be enough for you to get by on," the response was nearly identical, with 72 percent of women and 57 percent of men agreeing. Yet despite those negative views, 84 percent of women and 75 percent of men responded that they plan to rely on Social Security as a substantial or somewhat substantial source of income in retirement, possibly for lack of other options.

Women likely to receive eventual Social Security benefits based on the earnings record of a spouse may be less knowledgeable about how benefits are calculated than are women who will receive benefits based on their earnings. In 2014, just over 50 percent of female Social Security beneficiaries received benefits based on their earnings alone (Iams 2016). In SSA (2021b), the agency projects that 57.5 percent of female beneficiaries older than 60 will receive benefits based solely on their earnings record in 2025 and that by 2095 , more than 70 percent of women will receive such benefits. As a result, women's expectations may become more like men's over time as their labor market experiences and Social Security eligibility become increasingly comparable.

## Marital Status

Bernheim (1987) used the longitudinal Retirement History Survey to compare workers' predictions of their future Social Security benefits to the actual benefits they later received. The initial panel of respondents comprised individuals aged 58-63 in 1969. Bernheim found that expected benefits were about 10 percent lower on average than the actual benefits respondents later received. He concluded that even people close to retirement tended to be pessimistic and to underestimate their future benefits. Widows and single women made the most accurate-and most conservative-estimates, perhaps because many of them knew they would depend on Social Security benefits as their primary income source. Married men were the least conservative and least accurate in their estimates. The Retirement History Survey did not include married women, a major data shortcoming. The survey's "single women" category combined the never married and the divorced.

However, not everyone underestimates their future Social Security benefits. Of those who overestimated their future benefits in Bernheim (1987), one in six did so by at least 25 percent, and one in 12 overestimated
them by at least 50 percent. Men were more likely to overestimate their future benefits than women. Among singles, one-fifth of men overestimated their future benefits, compared with one-tenth of women.

Quinby and Wettstein (2021) found that marital status had an insignificant effect on the difference between expected and scheduled benefits. The authors did not explore gender differences.

## Financial Literacy

Prados and Kapteyn (2019) surveyed individuals aged 30 or older who did not have a disability and were not retired. The authors calculated the respondents' likely future Social Security benefits and compared their calculations to the respondents' expectations. They found that men's predictions were more accurate than women's. Further, men overall (as well as men and women who reported less uncertainty about their future benefits) were less likely to overestimate them. However, the gender effect was insignificant when the authors controlled for financial literacy and attitudes toward planning. Thus, gender differences in financial literacy may be a factor in gender differences in expectations.

Some people may have overestimated their future Social Security benefits because they retired sooner than they planned, resulting in lower-than-expected benefits. In a survey of retirees, the Employee Benefits Research Institute (2021) found that 46 percent had retired earlier than planned. Among those, 34 percent retired because of unexpected adverse events such as health problems or disability, 25 percent retired because of workplace- or employer-related changes, and 41 percent retired because they could afford to.

Nationwide Retirement Institute (2021) surveyed adults aged 25 or older not yet receiving Social Security benefits and found that 62 percent of women and 38 percent of men responded that they did not know or were not sure what their Social Security benefit amounts would be. When asked the age at which they could receive full Social Security benefits, 46 percent of women and 31 percent of men reported they did not know. When asked if they knew how to maximize their future Social Security benefit, 47 percent of women and 61 percent of men responded that they did. The question did not define "maximize," however, so it may have been interpreted as maximizing annual benefits, which would entail postponing benefit claiming to age $70 .{ }^{6}$

## Earnings and Their Effect on Future Benefits

Accurately estimating future Social Security benefits may be more difficult for women than for men because women are more likely to experience substantial variability in year-to-year earnings. This is partly because they are more likely than men to move from full-time to part-time work or to leave the labor force (Congressional Budget Office 2008; Mitchell and Turner 2010).

The COVID-19 pandemic has demonstrated that women tend to face more labor market risks than men (Muir and Turner 2022). For example, during 2020-2021, married women with school-aged children suffered greater income loss than their husbands because they assumed more of the additional child-care responsibilities when schools transitioned to distance learning (Calarco and others 2021).

Hegewisch (2016), writing before the pandemic, noted that women are more likely than men to give up their jobs when a family member needs serious care. Women may be more pessimistic about their future Social Security benefits, given that they are subject to greater earnings risks than men.

Research suggests that women are more likely than men to feel underprepared for retirement, which may be due in part to the gender gaps in wages and pensions, with women being disadvantaged in both. Using an online survey of 6,372 workers at for-profit companies with five or more employees, Transamerica Center for Retirement Studies $(2018,195)$ found that only 12 percent of women were "very confident" that they would "be able to fully retire with a lifestyle they consider comfortable," compared with 24 percent of men.

## Literature Review Part III: Expectations Focused on Social Security Solvency

Expectations about Social Security's future hinge on one's perceptions of what lies ahead for the OASI Trust Fund. Those perceptions are shaped by information that can come from a wide variety of sources and lead to a wide variety of conclusions.

## Rational Expectations and Likely Scenarios

In trying to predict the timing and nature of program changes, one might assume that Congress will follow the pattern of the 1983 Social Security reforms. Those reforms were not enacted until a financing shortfall was imminent, which would have adversely affected payments to current retirees. In that respect, the 1983 reforms continued a pattern of legislative procrastination that has historically characterized attempts to deal
with Social Security financing (Turner 2017). Other than procrastination, the aspects of the 1983 reforms that might be duplicated in future reforms are difficult to predict. Because one cannot foresee how future reforms would affect different age cohorts or how substantial their effect on benefits would be, concerns about future benefits are understandable. The 2022 Social Security Trustees Report (Board of Trustees 2022) projects that the OASI Trust Fund will enable SSA to pay scheduled benefits fully through 2034 and to pay 77 percent of scheduled benefits after that. ${ }^{7}$

## Gender Differences in Solvency Expectations

Quinby and Wettstein (2021) studied how media reports on prospective Social Security financing shortfalls affect worker expectations about future benefits. Holding marital status constant, they found that men reported a significantly higher ratio of expected benefits to scheduled benefits-in other words, a lower future reduction in benefits-than women.

Beyond the question of expected benefit amounts is the level of confidence that benefits will be paid at all. In an online survey of 3,109 workers, 80 percent of women and 72 percent of men expressed concern that Social Security would "not be there for them" (Collinson, Rowey, and Cho 2021). Other evidence suggests that women are more risk averse than men, as Hinz, McCarthy, and Turner (1997) found in their study focusing on pension investments.

Women are more likely than men to worry that Social Security will "run out of money" during their lifetime- 74 percent versus 65 percent (Nationwide Retirement Institute 2022). By contrast, men are more likely than women to answer factual questions about Social Security provisions correctly, suggesting that pessimism about the financing of future benefits may be related to lower levels of program knowledge. Women are also more likely than men to agree with the statement that "COVID heightens worries about Social Security funding."

The different economic risks typically faced by men and women may explain gender differences in expectations. As women tend to rely more on Social Security than men, they are more vulnerable to risks to future Social Security benefit levels. Men are also generally more familiar with Social Security program details than women. Evidence from other research on expectations suggests that people tend to acquire information when they perceive a benefit to doing so (Roth, Settele, and Wohlfart 2022).

To summarize this literature review, a variety of factors may explain why women are more pessimistic than men about the future of Social Security. For example, men tend to be more optimistic than women in their economic outlooks (Barber and Odean 2001; Niederle and Vesterlund 2007); men have higher earnings than women and, perhaps as a result, are less risk-averse than women (Hinz, McCarthy, and Turner 1997; Cortés and others 2020); men are generally more knowledgeable about Social Security than women (Nationwide Retirement Institute 2021, 2022); and women have greater earnings volatility, which poses greater risks to their future benefits, than men (Muir and Turner 2022).

## Findings from the AARP 85 ${ }^{\text {th }}$ Anniversary of Social Security Survey

In this section, we explore results of a 2020 online and telephone survey of 1,441 respondents aged 18 or older commissioned by AARP to celebrate the $85^{\text {th }}$ anniversary of the Social Security Act's passage (Perron 2020). ${ }^{8}$ First, we present AARP survey results detailing respondents' views on Social Security. Then we describe and present the results of a multivariate analysis of confidence in Social Security that controls for key socioeconomic variables such as income, education, and age. ${ }^{9}$

## Respondents' Views

In the AARP survey, 63 percent of men and 73 percent of women said that Social Security is one of the most important U.S. social programs and that they "would suffer if it ceased to exist" (Table 2). ${ }^{10}$ Highlighting concerns about the sustainability of Social Security and gender differences in those concerns, 70 percent
of men and 81 percent of women agreed with the statement, "Social Security will not be there for you when you need it."

Among men who indicated that they are not confident in the future of Social Security, 31 percent also reported that they do not trust government programs. The corresponding figure among women was similar, at 28 percent. Thus, as noted in the literature review, differences in trust in government do not underlie gender differences in views about the future of Social Security.

However, there are gender differences in knowledge about Social Security financing. In particular, 23 percent of men who reported that they are not confident in Social Security's future believed that the program is running out of money, as did 29 percent of women. The program is facing a shortfall, but it will be able to pay most scheduled benefits and it is not running out of money. Thus, gender differences in knowledge about Social Security financing are also associated with lack of confidence in the program's future.

Women are more likely than men to express lack of confidence in the future of Social Security. When asked their level of confidence in "the future of the Social Security program," 53 percent of men and 61 percent of women responded they were either "not too" or "not at all" confident (Table 3). Seventeen percent of each were "not at all confident."

Table 4 examines confidence in Social Security not only by sex but also among three subgroups-current Social Security beneficiaries, nonbeneficiaries with a spouse who is receiving benefits, and nonbeneficiaries without a spouse who is receiving benefits.

Table 2.
Agreement with selected statements about Social Security, by sex: Weighted survey results (in percent), 2020

| Statement | Men | Women |
| :--- | ---: | ---: |
| All respondents |  |  |
| Social Security will not be there for you when you need it | 70 | 81 |
| Would suffer if Social Security ceased to exist | 63 | 73 |
| Social Security is one of the most important social programs | 63 | 73 |
| Not confident in the future of Social Security | 53 | 61 |
| Respondents who are "not confident in the future of Social Security" |  | 28 |
| I don't trust the government to keep its promises | 31 | 28 |
| I think the money is running out | 23 | 29 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.

Table 3.
Extent of confidence in the future of Social Security, by sex: Weighted survey results (in percent), 2020

| Response | Men | Women |
| :---: | ---: | ---: |
| Total | 100 | 100 |
| Confident | 47 | 39 |
| Very | 8 | 4 |
| Somewhat | 39 | 35 |
| Not confident | 53 | 61 |
| Not too | 36 | 44 |
| Not at all | 17 | 17 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.

Table 4.
Extent of confidence in the future of Social Security, by sex and beneficiary status of self and spouse: Weighted survey results (in percent), 2020

| Response | Men |  |  | Women |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Beneficiary ${ }^{\text {a }}$ | Nonbeneficiary |  | Beneficiary ${ }^{\text {a }}$ | Nonbeneficiary |  |
|  |  | Spouse is a beneficiary | No spousal beneficiary ${ }^{\text {b }}$ |  | Spouse is a beneficiary | No spousal beneficiary ${ }^{\text {b }}$ |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Confident | 70.6 | 63.7 | 37.0 | 66.7 | 48.2 | 30.2 |
| Very | 14.4 | 18.2 | 4.9 | 9.1 | 10.3 | 3.4 |
| Somewhat | 56.2 | 45.5 | 32.1 | 57.6 | 37.9 | 26.8 |
| Not confident | 29.4 | 36.4 | 63.1 | 33.4 | 51.7 | 69.8 |
| Not too | 23.0 | 36.4 | 40.8 | 26.8 | 44.8 | 44.7 |
| Not at all | 6.4 | 0.0 | 22.3 | 6.6 | 6.9 | 25.1 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTE: Rounded components of percentage distributions do not necessarily sum to 100.0 .
a. Includes nonmarried beneficiaries and married beneficiaries whose spouse is also a beneficiary.
b. Includes nonmarried respondents and married respondents whose spouse is also a nonbeneficiary.

Becoming a beneficiary or being married to one increases confidence in the future of Social Security. Current beneficiaries and the nonbeneficiary spouses of current beneficiaries are much more confident in the future of Social Security than nonbeneficiaries with no spousal beneficiaries. ${ }^{11}$ Hou (2022) argues that the risk of cuts in future Social Security benefits is low for current beneficiaries. Although the AARP survey results for Social Security beneficiaries generally indicate that beneficiaries support that assertion, 29.4 percent of men and 33.4 percent of women who are current beneficiaries express little or no confidence in Social Security's future. Thus, a slight gender difference in pessimism emerges among beneficiaries. Among nonbeneficiaries whose spouse receives benefits, the gender difference is sharper: 36.4 percent of
men lack confidence in Social Security's future versus a majority ( 51.7 percent) of women.

The 2020 AARP survey includes a follow-up question that asks respondents who express a lack of confidence why they lack confidence in the future of the Social Security program (Table 5). The response "I don't trust the government to keep its promises" was selected by 31 percent of men and 28 percent of women. With the statement "I think the money is running out," 23 percent of men and 29 percent of women agreed, aligning with findings of greater fear about program sustainability among women from other studies (for example, Williams 2015).

Among respondents who believed that "the money is running out" and were then asked to explain the

Table 5.
Reasons given for lack of confidence in the future of Social Security, by sex: Weighted survey results (in percent), 2020

| Statement | Men | Women |
| :--- | ---: | ---: |
| Total who are not confident | 100 | 100 |
| I don't trust the government to keep its promises | 31 | 28 |
| I think the money is running out | 23 | 29 |
| Politicians have taken money from Social Security in the past | 15 | 16 |
| People are living longer and taking more money out of the system | 13 | 12 |
| Fewer people will be paying into the system in the future | 13 | 6 |
| Someone I trust told me it would not be there for me | 2 | 4 |
| Other | 4 | 4 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTE: Percentages may not sum to totals because of rounding.
implications of the statement "the Social Security trust fund will be exhausted in 15 years," 37 percent of men and 45 percent of women indicated that it means "Social Security will not be able to pay any benefits" (not shown). Thus, the gender difference may, in part, reflect gender gaps in knowledge about the meaning of the financing shortfall.

Respondents who expressed confidence in Social Security's future were asked the main reason for their confidence. For both men and women, the most common responses were, "It has been around for many years" ( 34 percent) and "It has always paid its benefits" (28 percent; Table 6). "I trust the government to keep its promises" was chosen by 21 percent of men and 20 percent of women. Thus, we find virtually no gender differences in reasons for confidence in Social Security.

Reflecting widespread lack of knowledge about Social Security financing, Table 7 shows that majorities of both men and women do not know how the depletion of the Social Security trust fund reserves would affect benefits. Only 30 percent of men and 22 percent of women know that Social Security would continue to pay reduced benefits even in the absence of reforms to restore solvency. Women ( 45 percent) are more likely than men ( 37 percent) to believe incorrectly that Social Security will not be able to pay any benefits. Thus, the gender difference in negative expectations about the future of Social Security is partially due to a gender difference in knowledge about Social Security financing.

Table 8 shows respondent beliefs about the results of a projected depletion of the Social Security trust fund reserves by current beneficiary status and
presence or absence of confidence in Social Security. ${ }^{12}$ Surprisingly, 23 percent of beneficiaries with confidence in Social Security believe that the insolvency of the trust fund would mean that Social Security could not pay any benefits. That mistaken view is also held by 33 percent of nonbeneficiaries who report confidence in Social Security.

## Multivariate Analysis

As noted earlier, becoming an OASI beneficiary increases confidence in Social Security. Among AARP survey respondents 64 percent of beneficiaries reported confidence in Social Security's future compared with only 35 percent of nonbeneficiaries (Table 9). Other differences between beneficiaries and nonbeneficiaries are evident, as well. For example, 29 percent of beneficiaries believed they were "very informed" about the program, compared with 15 percent of nonbeneficiaries. Furthermore, 3 percent of beneficiaries were "very concerned" that Social Security would not "be there when they need it," compared with 12 percent of nonbeneficiaries.

In view of significant differences between the OASI beneficiary and nonbeneficiary populations, we focus our multivariate analysis on nonbeneficiaries who do not have a spousal beneficiary, a sample of 1,028 persons. We find a gender gap in reported confidence among these nonbeneficiaries of 7 percentage points, with 37 percent of men and 30 percent of women being confident in Social Security's future (Table 4).

Table 10 reports descriptive statistics for our regression sample of nonbeneficiaries. Women, on average, are more educated and earn less than men: 40 percent

Table 6.
Reasons given for confidence in the future of Social Security, by sex: Weighted survey results (in percent), 2020

| Statement | Men | Women |
| :--- | ---: | ---: |
| Total who are confident | 100 | 100 |
| It has been around for many years | 34 | 34 |
| It has always paid its benefits | 28 | 28 |
| I trust the government to keep its promises | 21 | 20 |
| Someone I trust told me that I can be confident | 6 | 8 |
| Other | 10 | 9 |
| Don't know | 0 | 2 |
| Skipped question | 0 | 1 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTE: Percentages may not sum to totals because of rounding.

Table 7.
Beliefs about the results of a projected depletion of the Social Security trust fund, by sex: Weighted survey results (in percent), 2020

| Response | Men | Women |
| :--- | ---: | ---: |
| Total | 100 | 100 |
| Social Security will be- |  |  |
| Unable to pay any benefits | 37 | 45 |
| Able to pay benefits at a reduced rate | 30 | 22 |
| Neither of these outcomes | 14 | 8 |
| Don't know | 18 | 24 |
| Skipped question | 0 | 1 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTES: The full text of the survey question was "The Social Security Administration projects that the Social Security trust fund will be exhausted in 15 years. Based on your understanding, does this mean that...?"
Rounded components of percentage distributions do not necessarily sum to 100 .

## Table 8.

Beliefs about the results of a projected depletion of the Social Security trust fund, by beneficiary status and reported confidence in Social Security's future: Weighted survey results (in percent), 2020

| Response | Beneficiaries |  | Nonbeneficiaries |  |
| :--- | ---: | ---: | ---: | ---: |
|  | Confident | Not confident | Confident | Not confident |
| $\quad$ Total | 100 | 100 | 100 | 100 |
| Social Security will be— |  |  |  |  |
| $\quad$ Unable to pay any benefits | 23 | 39 | 33 | 54 |
| Able to pay benefits at a reduced rate | 31 | 21 | 35 | 20 |
| Neither of these outcomes | 20 | 13 | 10 | 8 |
| Don't know | 26 | 26 | 20 | 18 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTES: The full text of the survey question was "The Social Security Administration projects that the Social Security trust fund will be exhausted in 15 years. Based on your understanding, does this mean that...?"

Rounded components of percentage distributions do not necessarily sum to 100.

Table 9.
Differences between beneficiaries and nonbeneficiaries in views toward Social Security: Selected weighted survey results (in percent), 2020

| Response | Beneficiaries | Nonbeneficiaries |
| :--- | ---: | ---: |
| Confident in the future of Social Security | 64 | 35 |
| Consider self "very informed" about Social Security | 29 | 15 |
| "Very concerned" that Social Security will "not be there" when needed | 3 | 12 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.

Table 10.
Descriptive statistics for nonbeneficiaries studied in regression analysis: Weighted survey results, 2020

| Characteristic | Men | Women |
| :--- | ---: | ---: |
| Sample size | 505 | 523 |
| Percentage who are— |  |  |
| Informed about Social Security | 74 | 68 |
| College degree holders | 34 | 40 |
| Married | 47 | 44 |
| Black | 11 | 14 |
| Percentage with annual income of $\$ 50,000$ or more | 66 | 56 |
| Average age | 40.1 | 40.4 |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
of women and 34 percent of men have a college degree, and 56 percent of women and 66 percent of men earn at least $\$ 50,000$ annually.

We conducted logistic regression analysis to assess whether women are more pessimistic about Social Security's future because of innate or dispositional differences or because of differences in socioeconomic status. Our findings are reported as odds ratios, defined as the probability of having greater confidence in Social Security divided by the probability of lacking confidence in the program. A dependent variable equal to 1 indicates confidence; a dependent variable equal to 0 indicates no confidence. Estimated odds ratios above 1 indicate above-average confidence (a positive effect), while odds ratios below 1 indicate belowaverage confidence (a negative effect).

We use a range of socioeconomic and demographic independent variables in the analysis, including selfreported knowledge of Social Security, education, income, age, race, and marital status. Table 11 reports the results for four models, each with a different mix of variables. Holding constant the effect of these other variables, we find a significant negative effect on confidence among women with an annual income of $\$ 50,000$ or higher, but the gender effect by itself is not statistically significant. In other words, for women
with an annual income of less than $\$ 50,000$, the gender gap in confidence in the future of Social Security is explained by the economic and demographic variables included in the regressions.

Thus, the gender difference in pessimistic Social Security expectations found in the survey results is largely not innate or dispositional, as it is not found for most women but is the result of the differences in socioeconomic variables. We tested the robustness of this result by omitting self-stated knowledge about Social Security, and the result was unchanged. The result also did not differ from those of other variations in the regressions reported in Table 11 (namely, omitting marital status, race, and age squared).

Odds ratios for the person's age, program knowledge, education, and income variables are statistically significant in explaining differences in the level of confidence in the future of Social Security. With age having a significantly negative effect and age squared having a significantly positive effect, the effect of age plus age squared is U-shaped, first having a negative effect on confidence in Social Security at younger ages, then reversing and having a positive effect at older ages. Respondents who reported they were knowledgeable about Social Security had greater confidence in the future of the program, with women

Table 11.
Logistic regression analysis of nonbeneficiary confidence in Social Security based on weighted survey results for 2020

|  | Mod |  | Mod |  | Mod |  | Mod |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | Odds ratio | Linearized standard error | Odds ratio | Linearized standard error | Odds ratio | Linearized standard error | Odds ratio | Linearized standard error |
| Informed about Social Security | 1.906** | 0.442 | 1.867** | 0.431 |  |  | 1.932** | 0.448 |
| Age | 0.879** | 0.044 | 0.874** | 0.044 | 0.872** | 0.438 | 1.009 | 0.008 |
| Age squared | 1.001** | 0.001 | 1.002** | 0.001 | 1.002** | 0.001 | . . |  |
| College education or more | 0.494** | 0.105 | 0.487** | 0.105 | $0.494 * *$ | 0.106 | $0.455^{* *}$ | 0.981 |
| Female | 0.741 | 0.142 | 1.311 | 0.389 | 1.309 | 0.390 | 1.165 | 0.339 |
| Income of \$50,000 or more | 0.618* | 0.132 | 1.022 | 0.305 | 1.028 | 0.307 | 1.135 | 0.352 |
| Female and high income | . . . | . . . | 0.362* | 0.145 | $0.348^{* *}$ | 0.139 | 0.398* | 0.157 |
| Married |  |  | . . . |  | . . . |  | 0.829 | 0.176 |
| Black |  |  |  |  |  |  | 1.281 | 0.280 |
| Constant | 5.927 |  | 4.797 |  | 7.247 |  | 0.340 |  |

SOURCE: Authors' calculations based on 2020 AARP survey on Social Security opinions and attitudes.
NOTES: An odds ratio of less than 1 indicates a negative effect of the variable.
Sample size $=1,028$.
. . . = not applicable.

* = statistically significant at the 5 percent level; ** $=$ statistically significant at the 1 percent level.
rating themselves as less knowledgeable than men did. College-educated persons had less confidence, with women being more likely to have a college education than men. As noted above, having higher income (greater than $\$ 50,000$ ) among women had a negative effect on confidence, but without the gender interaction variable, the effect of higher income by itself is insignificant. Odds ratios for the race and maritalstatus variables were not statistically significant. Thus, our results suggest that gender differences in pessimism about Social Security's future can be explained mostly by socioeconomic variables rather than innate or dispositional factors.


## Conclusions

Social Security expectations differ substantially between men and women. This article examines the extent, nature, and causes of these gender differences in expectations. It focuses on why women tend to be more pessimistic than men about the future of Social Security.

Several explanations for the gender differences are suggested in the literature and by the descriptive statistics in our data analysis. Men are generally more economically optimistic than women. Women also tend to be less informed on Social Security program provisions. It is impossible to know how Social Security reforms will affect future benefits, but these explanations could all play a role in women being more pessimistic than men for the future of Social Security.

We reviewed survey responses on two aspects of Social Security benefits. First, in our literature review, we looked at respondent expectations about their future benefits. Second, we looked at their expectations about the future of the Social Security program overall. Expectations about one's benefits and the program's future differed. Benefit expectations are influenced by uncertainty about one's future earnings and by one's level of knowledge of the Social Security provisions. For the program overall, expectations are presumably related to beliefs about future Social Security reform legislation.

Predicting one's Social Security benefits is likely more difficult for women than for men. The variability of future income may affect the value of benefits for women who will claim benefits based on their earnings records. In addition, the variability of future spousal earnings may affect the value of future benefits for women whose claim will be based on their spouse's earnings record. In predicting what lies ahead for the program, different expectations about Social Security
reform may reflect attitudes towards risk explored in the behavioral and economic studies we reviewed, with women tending to be more risk averse than men.

Gender differences in Social Security expectations have been observed for years. Our literature review and empirical analysis suggest multiple behavioral and economic explanations for the well-established pattern of women having more pessimistic expectations about Social Security than men. Possible reasons include:

- Women have lower personal incomes than men, and lower-income individuals tend to have more pessimistic expectations.
- Women tend to be more risk averse than men.
- Women tend to be less knowledgeable about Social Security than men.
- Women are more likely to recognize Social Security's projected financing problems.
- Women may have more difficulty in accurately estimating future Social Security benefits because they are likely to have more variability in their future earnings.
The gender differences in expectations that have been found in numerous studies, as well as in our regression analysis of nonbeneficiaries, are considerably diminished when we restrict the study population to Social Security beneficiaries (Table 4). Becoming an OASI beneficiary reduces the uncertainty about the future that some people felt earlier in life. Furthermore, we note the difference between dispositional optimism, which is a psychological concept, and our measure of optimism, which is affected by knowledge and experience, and, hence, is more of an economic concept.

Our findings support the conclusion that gender differences in pessimism about Social Security's future are not innate or dispositional, and do not arise from gender differences in trust in government, but can be largely explained by socioeconomic differences.

## Notes

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${ }^{1}$ For this article, "Social Security" refers specifically to the OASI program, which provides benefits to retired workers and, when applicable, their dependents or survivors.
${ }^{2}$ These life expectancies are based on cohort life tables, which assume continued improvements in longevity across cohorts (Turner and Andrews 2023).
${ }^{3}$ Widows may be entitled to survivor benefits based on age, disability, or care of young children.
${ }^{4}$ The AARP survey's respondents report their gender identity without regard to whether that identity matches their sex assigned at birth.
${ }^{5}$ The Life Orientation Test-Revised (LOT-R).
${ }^{6}$ Postponing benefit claiming until age 70 would not necessarily maximize lifetime benefits.
${ }^{7}$ Retirement-planning software and "robo-advisors" generally ignore this issue and assume that individuals will continue to receive their scheduled benefits in full (Turner and Witte 2009; Turner, Rajnes, and Kintzel 2018; Fisch, Labouré, and Turner 2019).
${ }^{8}$ As noted earlier, we use the survey's empirical definition of gender: that is, the gender with which the respondent identifies, which may not match the sex assigned at birth.
${ }^{9}$ We tested the effect of using sex assigned at birth instead of self-identified gender and found that it does not affect the significance of any variables in the regressions we ran and only slightly affects the level of the coefficients.
${ }^{10}$ All survey results are adjusted using population weights calculated by the National Opinion Research Center, which conducted the survey for AARP.
${ }^{11}$ Because the respondents' spouses did not also participate in the survey, the only information available about them is their beneficiary status.
${ }^{12}$ The spouse's beneficiary status is not considered for this question.

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