TIAA Institute

Trends and Issues
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Longevity perceptions and implications for financial decision-making: Racial and ethnic differences

Executive summary

Inaccurate perceptions regarding life expectancy can lead to suboptimal financial decisions with long-term consequences, including undersaving prior to retirement, and overspending during retirement. Prior research suggested that Covid-19 mortality has disproportionately harmed those with low incomes, African Americans, and Hispanics in the United States, so we seek to determine whether subjective survival perceptions among these groups also changed in a manner consistent with observed outcomes. We fielded two online experimental surveys of US residents: one took place early in the pandemic outbreak, and the second, a year later. Using vignettes, we examine whether minorities' perceptions regarding longevity at the outbreak were consistent with observed reality, and how these compared to members of the white majority population. Furthermore, the panel aspect of our study enabled us to test whether and how these perceptions updated over time during the pandemic. Finally, using vignettes where our respondents offered advice regarding retirement saving and drawdowns, we evaluated how recommendations differed by race/ethnicity.

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We found that the gap between subjective survival probabilities and life tables was significantly higher among African Americans and Asian/Pacific Islanders compared to their White counterparts. We also showed that, a year into the Covid-19 pandemic, changes in subjective survival probabilities did not differ much by race/ethnicity. Seeing the vignette did reduce subjective survival over estimation among Hispanics, African Americans, and those self-identifying as an "other" race. Moreover, African Americans who underestimated their survival chances were most likely to recommend saving more and annuitizing to the vignette individuals in 2020; in 2021 the effects remained positive but less statistically significant.

Introduction

An extensive empirical literature has reported large racial disparities in life expectancy in the US. Thus, for both men and women, life expectancy at birth is higher among Whites compared to non-Hispanic Blacks, and Asian-Americans outlive Whites by a substantial margin. With the onset of the Covid-19 pandemic, there is evidence that the life expectancy has declined for the total population, along with disproportionately higher infection and mortality rates from the virus among the African American and Hispanic populations. Yet much less analysis exists on changes in subjective survival probabilities, or people's subjective perceptions of their own and others' survival expectations. This study used a panel of individuals we surveyed in early in 2020 and again a year later, in 2021 (N=2,298), which we use to evaluate how respondents assessed their subjective survival probabilities early versus late in the pandemic, as well as how these changed over time. We compare these with life tables by age and sex to gauge whether people over- or underestimated the changes, and whether outcomes differed in the majority White population, versus those for African Americans, Hispanics, Asian/Pacific Islanders, and others. Moreover, we examine people's views about how overall US population survival rates changed due to Covid.

Data and methodology

In March/June of 2020, we designed and fielded an online survey using Prolific, the internet-based crowd-working survey platform, and in Feb/April of 2021, we re-surveyed 2,298 of the same individuals. Respondents were between ages 35-83 at baseline with a mean age of 51; 57% were women; and 60% had at least some college. Of this sample, 81% self-reported themselves as White, 7% as African American, 4% Hispanic, 5% Asian/PI, and 3% other. Additional data about respondents' socioeconomic backgrounds was also gathered, including marital status, self-reported health, income, number of persons living in the household, present preferences, financial literacy and numeracy scores. In addition, we asked participants *What is the percent chance [0-100] that you think you will live at least {X} more years?* where the target age varied by the respondent's sex and age. We also asked participants about their chance of living to an age five years younger *{X-5}* than in the previous question. We then compare respondents' reported survival chances to age *X (X-5)* to their age/sex values from a population life table. A respondent was deemed an "overestimator" if his subjected chance of living to *X (X-5)* exceeded that from the life tables, i.e., if *SLE-LE(X)* or *(X-5)* was positive. Since we posed these questions in both 2020 and 2021, we can also compute the change in overestimation across the two years *(ΔSLE-LE(X)* and *(X-5)*).

Results on chances of survival

Table 1 shows that, in both years, respondents on average overestimated their survival chances compared to the life tables, but more so to living to age *X* than to age *X-5*.[1] Yet the change between 2020 and 2021 was negative (-2.58 and -1.98, respectively), implying that the respondents overestimated their subjective survival chances less after a year of pandemic (and taking into account the fact that they were a year older). In addition, we asked subjects to evaluate their chances of dying from Covid; 9% indicated that they felt their chances were 50% or greater in 2020, falling to 7% by 2021. We also find that, on average, people expected a drop in the fraction of the US population likely to attain age 90, due to Covid (*PopLongPlus*), as well as a decline in the US population's life expectancy due to Covid after getting vaccinated (*PopLELongPlus*).

1 This result is consistent with the other findings showing that people underestimate the likelihood of reaching middle age but overestimate the likelihood of reaching a very old age.

Table 1. Descriptive statistics, 2020-2021 panel

Variable	N	Mean	Std. Dev.
2020 SLE-LE(X)	2,008	18.40	30.44
2020 SLE-LE(X-5)	2,037	3.47	30.03
2021 SLE-LE(X)	1,954	15.70	29.23
2021 SLE-LE(X-5)	1,970	1.07	29.15
ΔSLE-LE(X)	1,817	-2.58	25.57
ΔSLE-LE(X-5)	1,842	-1.98	24.21
PopLongPlus	2,077	-0.39	1.11
PopLELongPlus	2,103	-0.21	0.98
Hispanic	2,298	0.04	0.20
African American	2,298	0.07	0.25
Asian/PacI	2,298	0.05	0.21
Others, race	2,298	0.03	0.16

Table 2 compares mean values of subjective survival probabilities and related variables for White, Hispanics, African Americans, Asian/Pacific Islanders, and others, accompanied by t-tests of the difference of each variable mean from the equivalent variable mean for Whites. Only a few of the results for Hispanics differed from Whites at conventional significance levels. More marked differences are evident in the results for African Americans, who were much more likely to overestimate their chances of living to age *X* as well as *X-5* in both waves of the panel; the differences are all significant at the 1% level. Asian/Pacific Islanders also overestimated their survival chances (though less so than the African Americans), and again the differences are significant at the 1% level. It is also interesting that few of the changes in self-reported probabilities across 2020 and 2021 were statistically significant; similarly, people's anticipated changes in population longevity and survival due to Covid did not differ significantly by race/ethnicity.

Table 2. Comparison of subjective survival and longevity variables by race/ethnicity

	White	Hispanic		African-American		Asian/PacI		Other	
Variable	Mean	Mean	Diff	Mean	Diff	Mean	Diff	Mean	Diff
2020 SLE LE(X)	16.74	22.50	*	31.36	***	28.13	***	19.02	
2020 SLE LE(X-5)	2.17	3.87		15.35	***	12.09	***	2.47	
2021 SLE LE(X)	13.56	19.80	*	34.89	***	23.54	***	20.20	*
2021 SLE LE(X-5)	-0.48	3.31		15.48	***	8.16	***	1.12	
ΔSLE LE(X)	-2.76	-4.39		1.68	*	-3.93		-0.47	
ΔSLE LE(X-5)	-2.11	-1.86		0.39		-2.85		-1.39	
PopLongPlus	-0.38	-0.59	*	-0.39		-0.31		-0.43	
PopLELongPlus	-0.21	-0.21		-0.25		-0.08		-0.31	

*** p<0.01, ** p<0.05, * p<0.1
Note: Diff refers to t-test of difference in means between the racial/ethnic group in italics and the White mean.

Multivariate regression analyses of subjective survival probabilities revealed that African American respondents continue to overestimate their subjective survival chances compared to Whites even after including numerous socio-demographic controls. Moreover, the coefficient magnitudes are substantial: African Americans in our panel believed they were 11.3 percentage points more likely than Whites to live to age *X* and 12.3 percentage points to live to age *X-5*, or 63% and 117% higher than the overall means. A similar pattern is repeated in the 2021 survey. Asian/Pacific Islanders are also quite large and significant: in 2020 this subgroup anticipated an 8.7 percentage point advantage for living to age *X* over the life tables compared to Whites, and an 8.6 percentage point advantage for *X-5*. Findings regarding survival optimism for Hispanics and Other groups are all positive vis a vis Whites, but for the most part, less statistically significant in both years.

Separate analyses of changes in own life expectancy over the 2020-21 panel provided little evidence of systematic racial/ethnicity differences. Turning to change in population survival post-pandemic, Hispanics were less likely to overestimate these than Whites, but there were few other racial/ethnic differences.

Results on saving and annuitization advice

Next, we examined results from experimental treatments to which we exposed our respondents, regarding information about life expectancy and longevity. To this end, we created two 'baseline' vignettes. One was about a single man (woman) age 40, with no children, deciding whether to increase his (her) retirement savings (the "**savings vignette**"). The specific wording was as follows:

Mr. Smith is a single, 40-year-old man with no children. He will retire and claim his Social Security benefits at 65. When he retires, he will have $100,000 saved for his retirement, and he will receive $1,400 in monthly Social Security benefits.

Please indicate which one of these options you would recommend:

1. *Maintain his current saving level.*
2. *Slightly increase his long-term savings by spending less.*
3. *Significantly increase his long-term savings by spending less.*
4. *Don't know.*

The other was about a single man (woman) age 60, with no children, needing to decide how to withdraw his (her) retirement savings (the "**annuitization vignette**"):

Next, we will describe a financial decision facing Mr. Smith and then we will ask you what you would recommend to this person: Mr. Smith is a single, 60-year-old man with no children. He will retire and claim his Social Security benefits at 65. When he retires, he will have $100,000 saved for his retirement, and he will receive $1,400 in monthly Social Security benefits. Imagine that Mr. Smith asks you about how to manage his $100,000 retirement savings.

Please indicate which one of the two options you would recommend:

1. *Withdraw the entire $100,000 all at once from the retirement account, to use as he needs.*
2. *Receive a regular monthly sum of $500 (equal to $6,000 yearly) for the rest of his life.*

Results in Table 3 focus on whether the respondent recommended that the vignette individual (1) significantly increase savings, or (2) annuitize part of his retirement assets. The odd numbered columns report results for all respondents, while the even numbered columns include only those whose subjective survival probabilities were below those from the life tables (underestimators). An interesting result is that, of all the race/ethnicity groups, the African Americans underestimators were most likely to recommend saving more and annuitizing to the vignette individuals in 2020; in 2021 the effects remain positive albeit less statistically significant.

Table 3. Factors shaping saving and annuitization advice, 2020-2021 panel (Marginal Logit effects reported)

	2020 Responders				2021 Responders			
	Savings vignette		Annuitization vignette		Savings vignette		Annuitization vignette	
	All responders	Under-estimators	All responders	Under-estimators	All responders	Under-estimators	All responders	Under-estimators
Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Hispanic	0.104	-0.172	-0.036	0.105	0.072	0.160	0.015	0.055
	(0.094)	(0.192)	(0.064)	(0.070)	(0.087)	(0.174)	(0.057)	(0.074)
African American	0.028	0.251***	0.040	0.166***	0.020	0.221**	0.088**	0.085
	(0.064)	(0.077)	(0.051)	(0.054)	(0.085)	(0.098)	(0.044)	(0.119)
Asian/PacI	-0.046	-0.157	-0.011	-0.117	0.024	0.083	-0.109	-0.305*
	(0.082)	(0.162)	(0.069)	(0.143)	(0.085)	(0.154)	(0.082)	(0.168)
Other race	0.096	0.121	-0.053	0.013	0.259***	0.192	-0.024	-0.056
	(0.111)	(0.154)	(0.083)	(0.132)	(0.067)	(0.123)	(0.101)	(0.173)
Mean dependent var	0.57	0.61	0.77	0.77	0.59	0.62	0.77	0.80
SD dependent var	0.50	0.49	0.42	0.42	0.49	0.49	0.421	0.402

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
Other controls include age, sex, marital status, education, good health, FinLit and numeracy score, present bias, income, # people in household, chances of dying from Covid > 50%, and paid attention.

Conclusions and implications

We believe that these results will interest those in industry and policy circles for several reasons. First, the finding that African Americans and Asians tend to have higher self-assessed survival probabilities compared to life tables is a robust result in our data. As a result, it could imply that many members of these two groups would be more likely than Whites to be interested in retirement saving and annuitization in later life. Second, providing our respondents with information about life expectancies and longevity did not have a differential impact on African Americans' and Hispanics' subjective survival over estimation compared to Whites. This suggests that additional information treatments would be needed to better explain the nature of and consequences of longevity. Last, we confirmed that getting people to think about long-term financial decisions can shape the recommendations they give regarding saving and annuitizing, particularly to the subset of persons that underestimates longevity. These findings illuminate the importance of finding ways to encourage people to make better financial decisions essential for later life.

About the authors

Abigail Hurwitz is an Assistant Professor at the Hebrew University of Jerusalem. Her research is dedicated to long term saving, consumption and annuity choices. She seeks to better understand financial behavior in order to influence policy as well as to develop and promote savings products and to increase the demand for annuities. Hurwitz holds a Ph.D. in Finance as well as an M.A. and B.A. in Business and Economics from the Hebrew University of Jerusalem. She was previously a Post-doctorate visiting scholar at the Wharton school of the University of Pennsylvania.

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This material provides an overview of the working paper "Racial and Ethnic Differences in Longevity Perceptions and Implications for Financial Decision-Making" by Abigail Hurwitz, Olivia S. Mitchell, and Orly Sade.

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