401(k) plans and race

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401(k) PLANS AND RACE

BY ALICIA H. MUNNELL AND CHRISTOPHER SULLIVAN*

Introduction

Many data sources show a disparity among racial and ethnic groups regarding participation in and contributions to 401(k) plans. White workers participate at a higher rate and contribute a higher percentage than African American and Hispanic workers. However, few studies have explored whether these differences persist once other factors expected to impact these decisions are taken into consideration. One recent study by Ariel/Hewitt using client data found lower participation and contributions rates in 401(k) plans for African Americans and Hispanics than for Whites, even after controlling for age, tenure, and earnings. The question is whether racial and ethnic differentials remain after controlling for a broader array of factors included in a nationally representative sample of households, the Federal Reserve's *Survey of Consumer Finances* (SCF).

The *brief* proceeds as follows. The first section documents the differentials in eligibility, participation, and contribution rate by race using the SCF. The second section reports how the race variables are affected once demographic and plan variables are included. The third section concludes that while additional variables can eliminate the significance of race, all is not necessarily right with the world. African Americans and Hispanics are still less likely to have

the kinds of jobs in which participation in a 401(k) plan is possible; they are less likely to have the earnings, job tenure, and other factors that would cause them to participate in a plan; and, once in a plan, they are less likely to have the taste for saving that would result in a high contribution rate.

Eligibility, Participation, and Contributions by Race

The SCF is a triennial survey of a nationally representative sample of about 4,500 U.S. households, which collects detailed information on households' assets, liabilities, and demographic characteristics. The sample consists of four groups: non-Hispanic white (Whites), Black/African American (Blacks), Hispanic/Latino (Hispanics),[1] and "Other" (see Figure 1 on the next page). The "Other" category includes American Indians, Alaskan and Hawaiian natives, and Asians, but data from other surveys suggest that the vast majority of people in this category are Asian.[2] Thus, for the purpose of this *brief*, we use "Asian" in place of "Other." In order to have a sufficiently large number of non-whites, the following analysis combines data from the 2001, 2004, and 2007 SCF.

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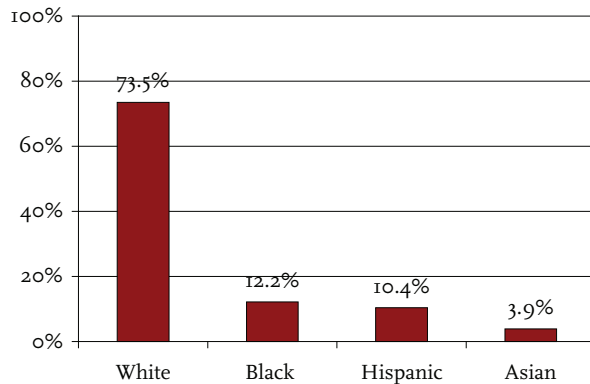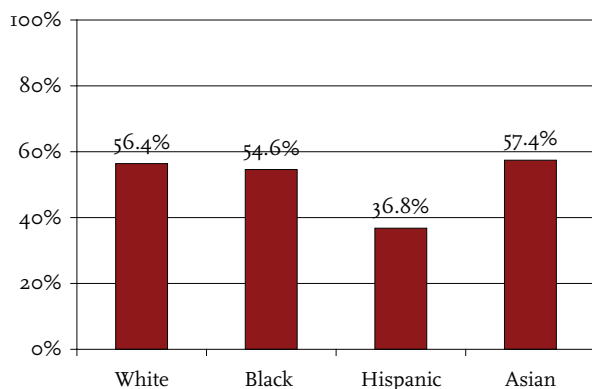
The first step to 401(k) saving is to work in a job where the employer offers a 401(k) plan. Figure 2 shows the percent of the non-self-employed workforce eligible for a 401(k) plan by race. The percentages for Whites and Blacks are about 55 percent, while Hispanic workers are dramatically lower (37 percent) and Asians slightly higher (57 percent).

The next step is for workers who are eligible for an employer's 401(k) to participate in that plan. At this stage, Whites have a higher percentage than both Blacks and Hispanics, but once again Asians lead all groups (see Figure 3).
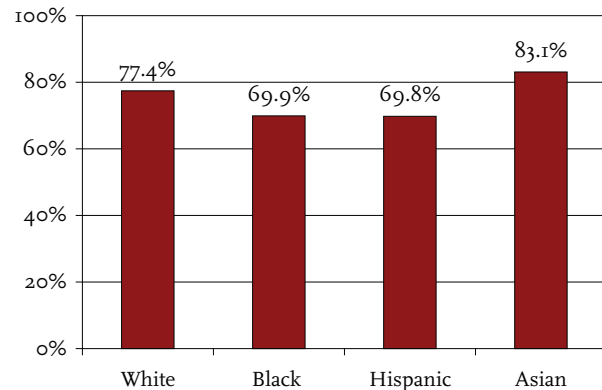
Similar trends occur in contributions. For those workers who participate, average contributions as a percentage of salary vary sharply by race/ethnicity. Figure 4 shows that Black and Hispanic workers have lower average contribution rates than do Whites. Once again, Asians dominate with a contribution rate of almost 8 percent.
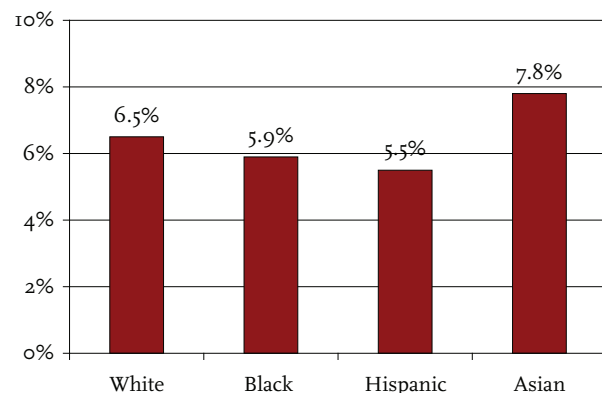
Generally, the results show that Whites do better at each step of the way than Blacks and Hispanics, and Asians do better than Whites. So success with regard to 401(k) plans seems to be systematically

related to race. The question is whether these ethnic discrepancies remain once socioeconomic and plan characteristics are taken into account.

Adjusting for Socioeconomic and Plan Characteristics

Three recent studies have explored the impact of race on 401(k) participation and contributions, controlling for socioeconomic and other characteristics. They come to different conclusions.

In 2007, the Ariel/Hewitt study (2008) surveyed almost 3 million employees at 57 of the largest U.S. companies regarding race, ethnicity, gender, earnings, age, job tenure, and 401(k) information. As with the SCF data, race appeared to play a significant role in determining participation and contributions. Blacks and Hispanics were less likely than Whites to participate in 401(k) plans and, if they did, they were likely to save less. Asians were more likely to participate and contribute more than Whites. For the purposes of this discussion, the relevant findings were that controlling for earnings, job tenure, and age – the information readily available in plan data – the pattern remained.

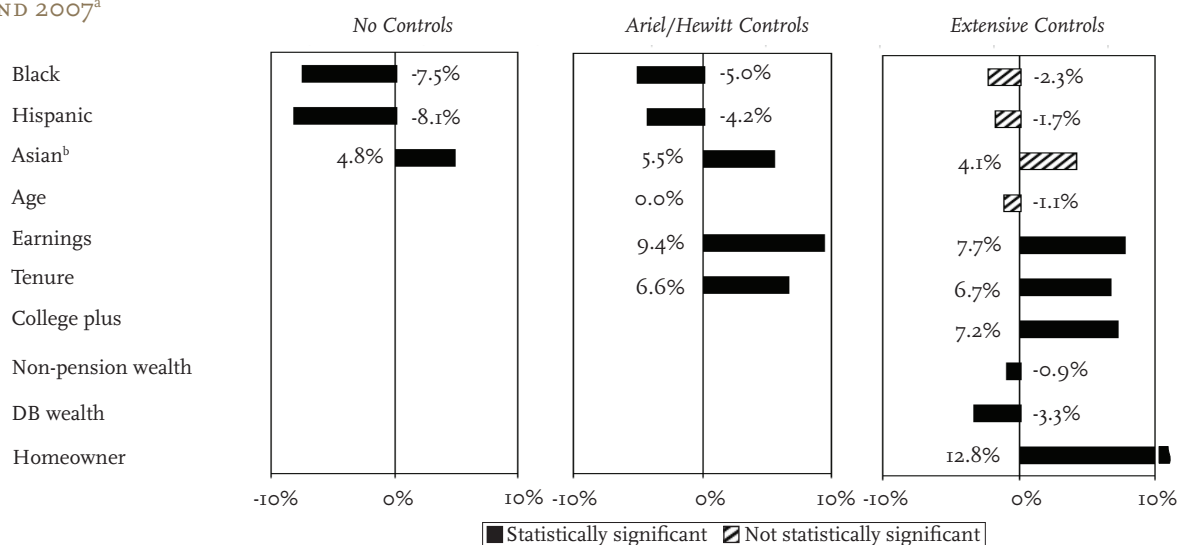The second study (Dushi and Honig, 2008) did not focus on race or ethnicity but compared determi-nants of 401(k) participation and contributions for 51-56 year olds in the 1992 and 2004 waves of the *Health and Retirement Study*. Race variables were introduced as controls. The authors ran regressions separately for the two waves, then pooled the two waves. They found no differential effect by race for participation (conditional on eligibility) or for contri-bution amounts (conditional on contributing) in the pooled sample. They found occasional significant effects within the cohorts. (For example, Asians were 21 percent more likely to participate than Whites in 1992, and Hispanics were 17 percent less likely to participate than Whites in 2004).

Schrager (2007) undertook a Blinder-Oaxaca de-composition of models estimated from pooled cross-section data from the 1998, 2001, and 2004 SCF. She found that most, if not all, of the difference in participation and contribution rates can be attributed to factors other than race.[3]

Given the mixed results to date, it is useful to see whether, in a nationally representative sample, race and ethnicity continue to have a statistically significant effect on participation and contribution decisions taking account of socioeconomic and plan characteristics.

Figure 5 reports the marginal impact of race on the probability of individuals joining a 401(k) plan, as-suming they are eligible to participate.[4] With no con-

FIGURE 5. EFFECTS OF SELECTED FACTORS ON PROBABILITY OF PARTICIPATING IN A 401(k) PLAN, 2001, 2004, AND 2007[a]

	No Controls	Ariel/Hewitt Controls	Extensive Controls
Black	-7.5%	-5.0%	-2.3%
Hispanic	-8.1%	-4.2%	-1.7%
Asian[b]	4.8%	5.5%	4.1%
Age		0.0%	-1.1%
Earnings		9.4%	7.7%
Tenure		6.6%	6.7%
College plus			7.2%
Non-pension wealth			-0.9%
DB wealth			-3.3%
Homeowner			12.8%

■ Statistically significant   ▨ Not statistically significant

[a] The effects of the five continuous variables, Age, Earnings, Tenure, Non-pension wealth, and DB wealth, are for a one standard deviation change from the mean.
[b] The Asian variable in the *No Controls* model is significant at the 15 percent level. All other significant variables are signifi-cant at least at the 10 percent level.
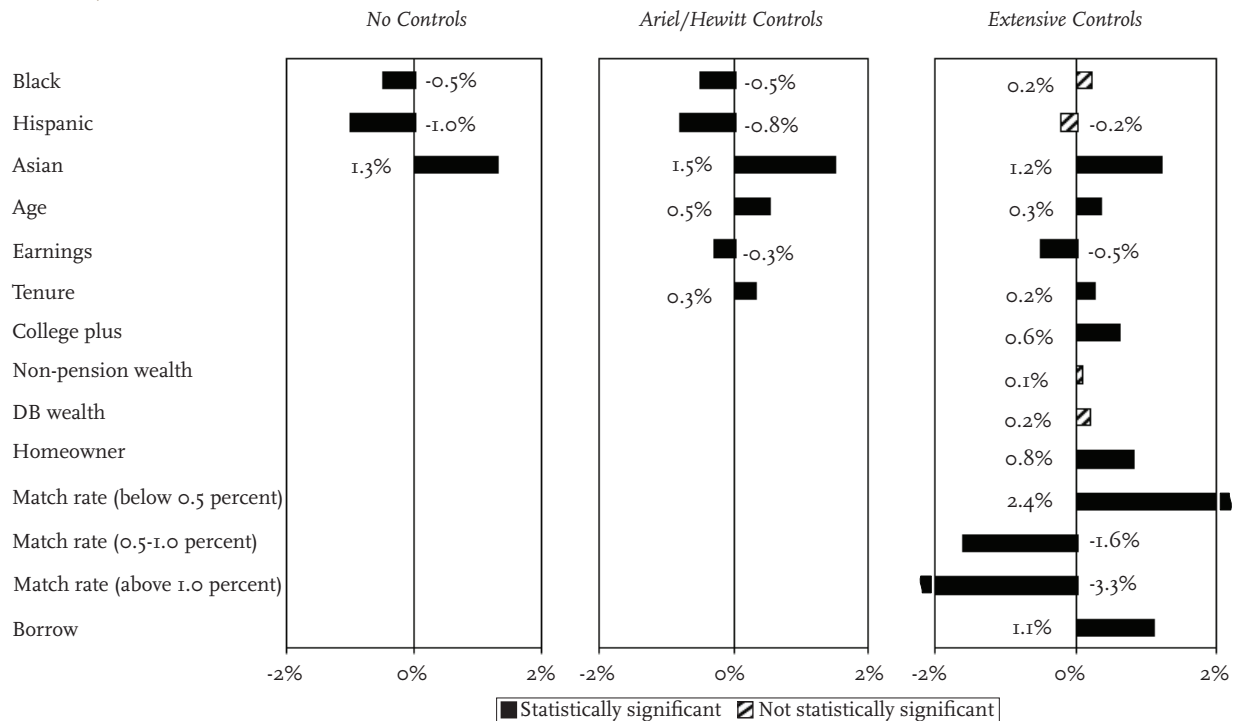*Source:* Authors' calculations from the 2001, 2004, and 2007 SCF.

trols, race plays an important role. Compared with Whites, Blacks and Hispanics are about 8 percent less likely to participate, and the effects are statistically significant. Asians are about 5 percent more likely to participate than Whites. Introducing the controls used in the Ariel/Hewitt study – age, earnings, and tenure – reduces the negative effect on participation associated with being Black or Hispanic, but the impact is still statistically significant. The effect associated with being Asian increases somewhat.

A more complete set of controls changes the story. As before, the equation includes age, earnings, and tenure. Added to the equation is information on whether the individual graduated from college, non-pension wealth, defined benefit wealth (the present discounted value of expected benefits), and whether the individual owns a home – a proxy for having a longer planning horizon. With the complete model, race is no longer a determinant of plan participation.[5]

Figure 6 repeats the exercise for contribution rates.[6] With no controls, Blacks and Hispanics are associated with significantly lower contribution rates – 0.5 and 1.0 percentage points, respectively – than Whites; Asians have a contribution rate that is 1.3 percentage points higher. Adding the Ariel/Hewitt controls does not diminish the importance of race. Blacks and Hispanics are associated with lower contribution rates, and Asians with higher contribution rates than Whites, and race/ethnicity remains statistically significant.

Again, a more complete model dampens the effect of race/ethnicity. As in the participation equation, the original three variables – age, earnings, and tenure – are accompanied by information on the individual's education, non-pension wealth, defined benefit wealth, and home ownership. In the case of the contribution decision, information is also available on the characteristics of the plan, such as the nature

FIGURE 6. EFFECTS OF SELECTED FACTORS ON LEVEL OF EMPLOYEE 401(k) CONTRIBUTION RATE, 2001, 2004, AND 2007

Note: The effects of the five continuous variables, Age, Earnings, Tenure, Non-pension wealth, and DB wealth, are for a one standard deviation change from the mean.
Source: Authors' calculations from the 2001, 2004, and 2007 SCF.

of the employer match and the ability to borrow. The combination of individual and plan characteristics completely eliminates the relevance of race/ethnicity in the case of Blacks and Hispanics. Asians, on the other hand, continue to be associated with a much higher contribution rate – 1.2 percentage points – than Whites.

Conclusion

The results from this exercise tell a goods news/ bad news story. The good news is that 401(k) participation and contribution decisions do not appear to vary by race/ethnicity. That finding means that for comparably situated individuals, Blacks, Whites, and Hispanics respond in a similar fashion in terms of joining a 401(k) plan and deciding how much to contribute. The bad news is that Blacks, Whites, and Hispanics are not similarly situated. Blacks and Hispanics are less likely than Whites to be eligible for an employer-sponsored plan, less likely to have characteristics that would lead them to participate, and less likely to have the experience building wealth (as through homeownership) that would lead to high rates of contributions. So, the best way to boost retirement saving among minorities is not by thinking about race or ethnicity, but by focusing plan design and education efforts on those with lower levels of earnings and education.

Endnotes

1 This study uses the term "Hispanic" throughout the text when referring to the group "Hispanic/Latino" from the SCF.

2 According to the *Current Population Survey*, Asians account for 4.7 percent of the non-self-employed workforce.

3 Schrager considers alternatives in which minority characteristics are applied to the White coefficients and White characteristics are applied to the minority coefficients, obtaining somewhat different results in each case, as is common with such decompositions.

4 Full regression results are shown in the Appendix.

5 This analysis ignores the possibility of race-based selection into jobs offering 401(k)s, which could affect the relative thriftiness of Black and White 401(k)-eligible employees, controlling for observable characteristics.

6 Again, this analysis does not attempt to control for selection bias arising from the fact that individuals who choose to participate are a non-random subsample of those who are eligible to contribute.

References

Ariel/Hewitt. 2008. "401(k) Plans in Living Color: A Study of 401(k) Savings Disparities Across Racial and Ethnic Groups." Lincolnshire, IL.

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APPENDIX

APPENDIX TABLE A1. SUMMARY STATISTICS FOR PARTICIPATION AND EMPLOYEE CONTRIBUTION REGRESSIONS, 2001, 2004, AND 2007

Variables	Participation		Employee contribution	
	Mean	Standard deviation	Mean	Standard deviation
DC plan participation	0.76	0.43	-	-
Employee contribution	-	-	7.11	4.60
Black	0.12	0.33	0.11	0.32
Hispanic	0.07	0.26	0.06	0.24
Asian	0.04	0.20	0.05	0.21
Age	42.60	11.21	43.16	10.76
Earnings[a]	6.16	10.31	6.80	10.50
Tenure	9.53	8.81	10.36	8.92
College plus	0.42	0.49	0.46	0.50
Non-pension wealth[b]	3.15	15.77	3.54	16.19
DB wealth[c]	4.34	18.27	4.62	19.84
Homeowner	0.78	0.42	0.82	0.38
Match rate (below 0.5 percent)	-	-	0.21	0.41
Match rate (0.5-1.0 percent)	-	-	0.47	0.50
Match rate (above 1.0 percent)	-	-	0.13	0.34
Borrow	-	-	0.70	0.46
Number of observations	5,829		4,023	

[a] Earnings are expressed in tens of thousands of dollars.
[b] Non-pension net worth is expressed in hundreds of thousands of dollars.
[c] DB wealth is expressed in tens of thousands of dollars.
Source: Authors' calculations from the 2001, 2004, and 2007 SCF.

APPENDIX TABLE A2. DETERMINANTS OF 401(K) PARTICIPATION, 2001, 2004, AND 2007

Variables	Equations		
	No Controls	Ariel/Hewitt Controls	Extensive Controls
Black	-0.075 ***	-0.050 **	-0.023
	(0.021)	(0.020)	(0.020)
Hispanic	-0.081 ***	-0.042 *	-0.017
	(0.028)	(0.025)	(0.024)
Asian	0.048	0.055 *	0.041
	(0.030)	(0.028)	(0.030)
Age	-	0.000	-0.001
		(0.001)	(0.001)
Earnings[a]	-	0.011 ***	0.009 ***
		(0.003)	(0.002)
Tenure	-	0.008 ***	0.008 ***
		(0.001)	(0.001)
College plus	-	-	0.072 ***
			(0.014)
Non-pension wealth[b]	-	-	-0.001 ***
			(0.000)
DB wealth[c]	-	-	-0.002 ***
			(0.000)
Homeowner	-	-	0.128 ***
			(0.017)
Pseudo R²	0.013	0.057	0.079
Number of observations	5,829	5,829	5,829

[a] Earnings are expressed in tens of thousands of dollars.
[b] Non-pension net worth is expressed in hundreds of thousands of dollars.
[c] DB wealth is expressed in tens of thousands of dollars.
Notes: Robust standard errors are in parentheses. Model includes year fixed effects. The coefficients report marginal effects from probits estimated using SCF analysis weights, computed at sample means of righthand side variables; Huber-White standard errors; and significance at 90 percent (*), 95 percent (**), and 99 percent (***) levels. The dependent variable is a dummy taking the value one if the individual participates in a defined contribution plan, zero otherwise.
Source: Authors' calculations from the 2001, 2004, and 2007 SCF.

APPENDIX TABLE A3. DETERMINANTS OF EMPLOYEE 401(k) CONTRIBUTION RATES, 2001, 2004, AND 2007

Variables	Equations		
	No Controls	Ariel/Hewitt Controls	Extensive Controls
Black	-0.510 **	-0.452 *	0.175
	(0.239)	(0.239)	(0.213)
Hispanic	-0.954 ***	-0.790 ***	-0.243
	(0.293)	(0.291)	(0.263)
Asian	1.350 **	1.545 ***	1.158 ***
	(0.530)	(0.521)	(0.428)
Age	-	0.048 ***	0.032 ***
		(0.010)	(0.009)
Earnings[a]	-	-0.027 **	-0.048 ***
		(0.004)	(0.007)
Tenure	-	0.036 ***	0.027 ***
		(0.011)	(0.011)
College plus	-	-	0.634 ***
			(0.147)
Non-pension wealth[b]	-	-	0.004
			(0.003)
DB wealth[c]	-	-	0.009
			(0.006)
Homeowner	-	-	0.751 ***
			(0.176)
Match rate (below 0.5 percent)	-	-	2.355 ***
			(0.273)
Match rate (0.5-1.0 percent)	-	-	-1.611 ***
			(0.213)
Match rate (above 1.0 percent)	-	-	-3.290 ***
			(0.227)
Borrow	-	-	1.064 ***
			(0.143)
Constant	7.118	4.960	4.667
Pseudo R²	0.010	0.037	0.219
Number of observations	4,023	4,023	4,023

[a] Earnings are expressed in tens of thousands of dollars.
[b] Non-pension net worth is expressed in hundreds of thousands of dollars.
[c] DB wealth is expressed in tens of thousands of dollars.
Notes: Robust standard errors are in parentheses. * Denotes significance at 10 percent level; ** at the 5 percent level; and *** at the 1 percent level. Model includes year fixed effects. This table reports the coefficients and standard deviations from an OLS model in which the dependent variable is the employee's 401(k) contribution as a percent of their earnings, conditional on participating in a plan.
Source: Authors' calculations from the 2001, 2004, and 2007 SCF.

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