

POLICYNOTE

HOUSEHOLD ECONOMIC SHOCKS INCREASE
RETIREMENT WEALTH INEQUALITY

by **Teresa Ghilarducci**, Bernard L. and Irene Schwartz Economics Professor at The New School for Social Research and Director of the Schwartz Center for Economic Policy Analysis (SCEPA); **Bridget Fisher**, SCEPA Associate Director; **Siavash Radpour**, SCEPA Research Associate; and **Anthony Webb**, SCEPA Research Director

ELEVATOR PITCH

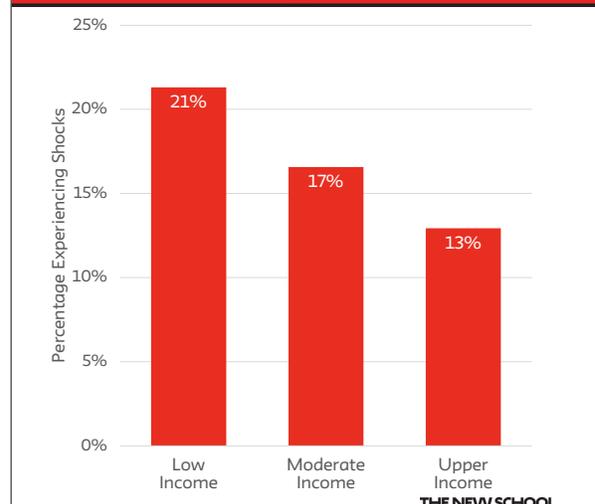
Economic shocks, such as job-loss, have a particularly adverse effect on the retirement savings of workers in low-income households, exacerbating retirement savings inequality. Low income households are more likely than moderate- and upper-income households to experience economic shocks. Workers in low-income households are also more likely to withdraw from their retirement account after a shock. This study shows that these shocks have significant effects on the finances of low-income households, causing up to a third of all withdrawals, and possibly more.

KEY FINDINGS

- Low-income households were more likely than moderate- and upper-income households to experience an economic shock during the two-year period 2008-2009.
- Workers in low-income households were more likely than those in moderate- and upper-income households to respond to an economic shock by withdrawing money from their retirement savings.
- Economic shocks explain at least 32 percent of withdrawals by workers in low-income households, and possibly more.
- The use of the retirement savings system as insurance against economic shocks fails to preserve retirement savings for their intended purpose and increases retirement income inequality.

WORKERS IN LOW-WAGE HOUSEHOLDS
ARE MORE LIKELY TO EXPERIENCE
SHOCKS

FIGURE 1: PERCENTAGES OF 401(K) PARTICIPANTS EXPERIENCING SHOCKS, 2009-10 - BY HOUSEHOLD INCOME



Source: Authors' calculations based on 2008 Survey of Income and Program Participation (SIPP) data.
Notes: SIPP sample weights. See technical appendix for definitions of income and shocks.

Suggested Citation: Ghilarducci, T., Fisher, B., Radpour, S., Webb, A. (2016) "Household Economic Shocks Increase Retirement Wealth Inequality." Schwartz Center for Economic Policy Analysis and Department of Economics, The New School for Social Research, Policy Note Series. Funded by the National Endowment of Financial Education (NEFE).

INTRODUCTION

Theoretical calculations indicate that 401(k) participants ought to accumulate substantial wealth by retirement. In reality, average balances fall far short of the amounts required to maintain pre-retirement consumption. While many factors contribute to the shortfall, pre-retirement withdrawals (leakages) from 401(k) and IRA accounts reduce retirement wealth by about one fifth.¹ However, although previous research has linked leakages to household-level economic shocks, it has not established whether the incidence of shocks or the response to shocks varies with income, a marker of socioeconomic status.

Using data from the 2008 Survey of Income and Program Participation (SIPP), this policy brief finds that 1) low-income households are more likely than moderate- and upper-income households to experience economic shocks; 2) households respond to shocks by withdrawing from 401(k)s and IRAs; 3) low-income households are more likely to withdraw after experiencing a shock; and 4) up to a third of withdrawals by low-income households, and possibly more, are the result of economic shocks.

MECHANISMS FOR WITHDRAWALS

Withdrawals from 401(k)s

Participants can withdraw from 401(k) savings plans through three channels: hardship withdrawals, loans, and cashouts on job-change.

Prior to age 59 ½, participants requesting in-service withdrawals must show an “immediate and heavy financial need,” or hardship. Qualifying situations include medical care, postsecondary education, buying or repairing a home, or avoiding foreclosure. Withdrawals are subject to income tax and may also be subject to a 10 percent excise tax if the participant is under age 59 ½.²

About 90 percent of 401(k) participants have access to a loan feature.³ However, because most loans are repaid and contribute very little to leakages, they are not included in this study.

Upon leaving a job, an employee can take a lump sum distribution of their accumulated savings, roll over the plan balance into an IRA, or transfer it to their new employer’s 401(k). Plan administrators can only compel closure of accounts with less than \$5,000. However, unless the participant elects otherwise, they must deposit distributions between \$1,000 and \$5,000 in an IRA or another employer plan. Distributions are subject to income tax and may also be subject to a 10 percent excise tax if the participant is under age 59 ½.

Withdrawals from IRAs

In contrast to 401(k) accounts, IRA withdrawals can be made at any time, subject to income tax. Withdrawals prior to age 59 ½ are also subject to a 10 percent excise tax, unless made for a qualifying purpose.⁴

LOW-INCOME HOUSEHOLDS EXPERIENCE MORE ADVERSE SHOCKS

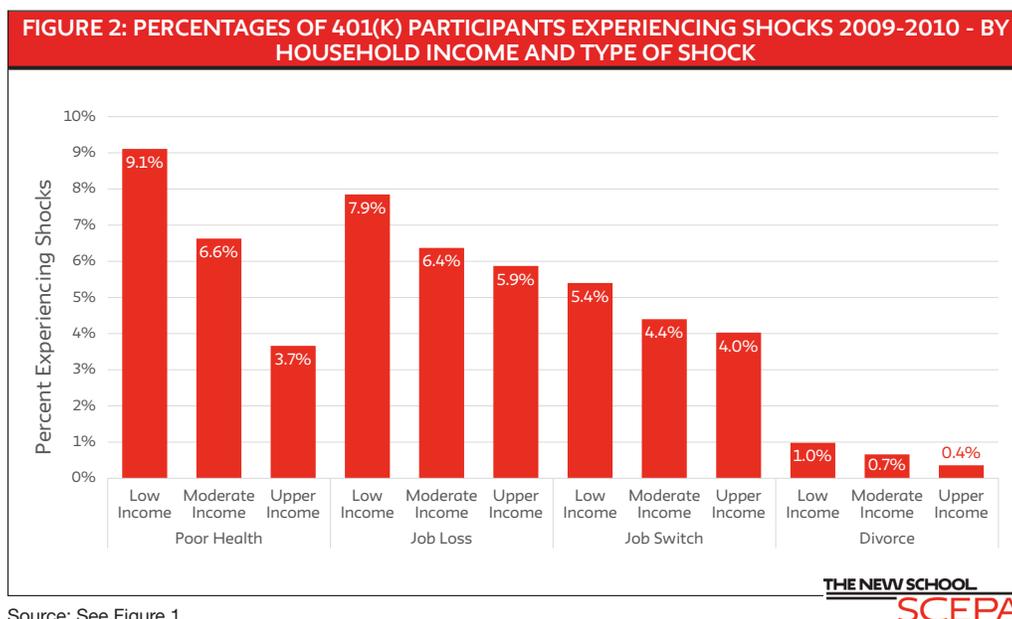
This study focuses on cashouts by individuals ages 25-58 during 2008-2009. It examines both 401(k) participants and workers who had an IRA but did not participate in a 401(k).

Low-income households were more likely to experience shocks that might adversely affect household finances (job-loss, job-change, onset of poor health, divorce or widowhood) than moderate- and upper-income households (Figures 1 and 2). For example, 7.9, 6.4, and 5.9 percent of low-, moderate-, and upper-income households experienced job loss during this period, and 9.1,

6.6, and 3.7 percent experienced a health shock. The differences between income groups are statistically significant.

But households may also make “investment decisions” (the birth of a child, college expenses, or a home purchase) that increase their financial needs. The study found that the incidence of these investment decisions varied little by income, and that they appeared to have little impact on withdrawals. It therefore excluded them from the econometric analysis.

WORKERS IN LOW-WAGE HOUSEHOLDS ARE MORE LIKELY TO EXPERIENCE SHOCKS



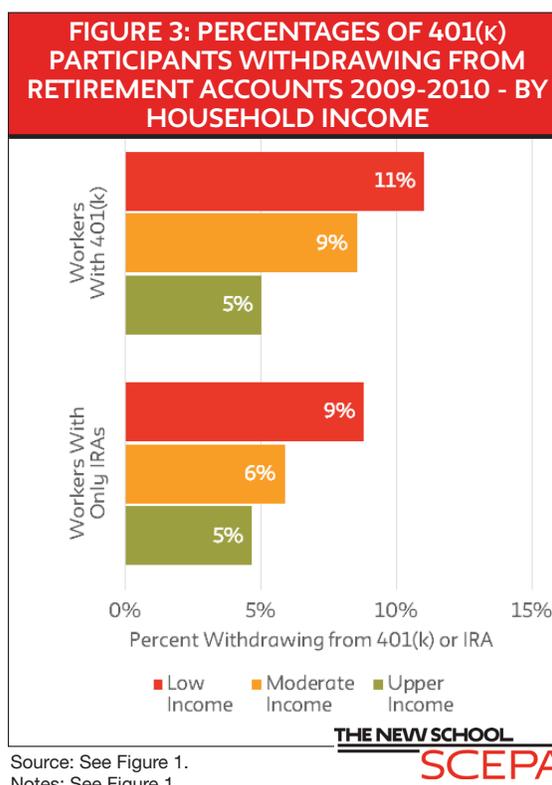
LOW-INCOME HOUSEHOLDS ARE MORE LIKELY TO WITHDRAW RETIREMENT SAVINGS

Retirement plan participants in low-income households were significantly more likely than those in moderate- and upper-income households to withdraw money from their account (Figure 3).

Over the two years 2008-2009, 11.0 percent of participants in low-income households cashed out, compared with 8.6 and 5.0 percent of participants in moderate- and upper-income households. These differences were statistically significant. The pattern of withdrawals among workers who held IRAs but did not participate in a 401(k) plan was similar.

Using an econometric analysis, the study determines the extent to which shocks and investment decisions explain these withdrawal patterns. The technical appendix contains a description of the methodology and a full set of regression results.

WORKERS IN LOW-WAGE HOUSEHOLDS ARE MORE LIKELY TO CASH OUT RETIREMENT SAVINGS



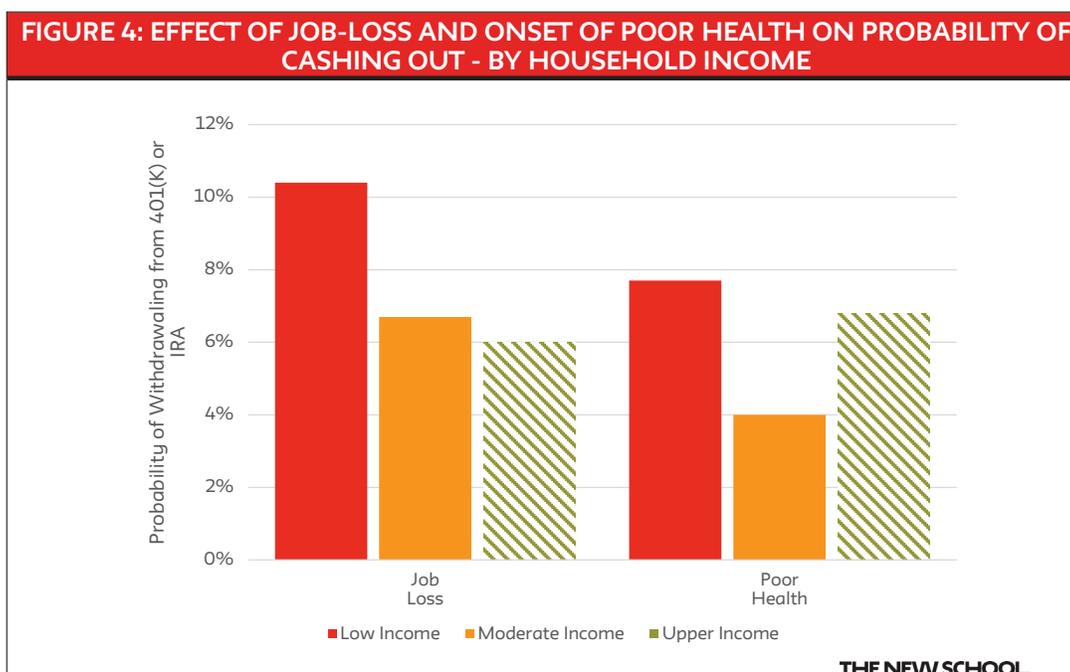
SHOCKS HURT LOW-INCOME HOUSEHOLDS MORE

Workers in households that experienced job-loss, job-change, the onset of poor health, or divorce were more likely to withdraw from their retirement accounts than otherwise similar individuals living in households that did not experience these types of shock. Importantly, low-income workers experiencing job-loss or the onset of poor health were more likely than moderate- and upper-income workers to withdraw (Figure 4), likely reflecting pre-existing financial vulnerability. To illustrate, job-loss increased the probability that a worker in a low-income household withdrew retirement

savings by 7.6 percentage points, compared with 3.0 and 2.3 percentage points for workers in moderate- and upper-income households.⁵

A higher incidence of shocks combined with a higher probability of withdrawing after experiencing a shock resulted in workers in low-income households being substantially more likely to make a pre-retirement withdrawal from their retirement plan than workers in moderate- and upper-income households.

WORKERS IN LOW-WAGE HOUSEHOLDS ARE MORE LIKELY TO CASH OUT FOLLOWING A SHOCK



Source: See Figure 1.

Notes: See Figure 1. The striped bars indicate values that are not significantly different from those immediately to their left.

FOR LOW-INCOME HOUSEHOLDS, SHOCKS ACCOUNT FOR UP TO A THIRD OF ALL WITHDRAWALS, POSSIBLY MORE

For some categories of low-income workers, a third of all withdrawals were the result of job-loss, job-change, divorce, or the onset of poor health.⁶ The study likely understates the overall effect of shocks on withdrawals because additional withdrawals may have occurred subsequent to the period covered by the data, and withdrawals

may have been triggered by shocks other than those included in the model.⁷ Importantly, the SIPP does not ask participants to enumerate the economic shocks they experienced, or to indicate why they cashed out their retirement plan. The model therefore likely fails to capture the effects of economically significant misfortunes.

POLICY RECOMMENDATIONS

While many households experience economic shocks, this study shows that low-income households are at greater risk of experiencing shocks than moderate- and upper-income households.

Low-income households are also more likely to cash out their 401(k) plans in the event of experiencing an economic shock. At least a third, and possibly a larger share, of their leakages are a response to shocks rather than fecklessness or shortsightedness. Households appear to view retirement savings accounts not only as assets to be preserved for retirement, but also as assets available for pre-retirement consumption smoothing, should the household experience hard times. Thus, the use of the retirement savings system as a pre-retirement safety net exacerbates pre-existing inequalities in retirement wealth.

Financial education that alerts households to the adverse long-term consequences of withdrawals will likely benefit households that would otherwise cash out their retirement accounts due to lack of financial knowledge. But it may have little effect on the behavior of those cashing out in response to economic shocks. They will rationally prioritize an immediate need over a long-term goal. Similarly, increasing the excise tax on pre-retirement withdrawals is unlikely to deter households with

pressing needs. Indeed, households may even increase their withdrawal to cover the additional tax liability. If financial education is to assist those facing economic shocks, it must focus on the broader goal of equipping households to minimize financial vulnerabilities.

We recommend a prohibition on pre-retirement withdrawals and a contribution mandate. Prohibition has the advantage of ensuring that retirement savings are preserved for their intended purpose, namely to finance post-retirement consumption. In this system, financial education would play a different role, namely empowering households to deal with pre-retirement financial vulnerabilities.

The Guaranteed Retirement Account (GRA) is an example of a comprehensive policy proposal that is both mandatory and prohibits pre-retirement withdrawals. This plan would create federal retirement accounts that guarantee principal and an annual rate of return and provide annuities as an add on to Social Security.

ENDNOTES

1. Munnell and Webb, 2015.
2. Some distributions, for example those because of permanent and total disability, are exempt from the 10 percent excise tax (Internal Revenue Service, 2016a).
3. Vanderhei et. al. (2012).
4. IRA qualifying purposes differ somewhat from those for 401(k) withdrawals and include the purchase of a first home, qualified education expenses, and unreimbursed medical expenses (IRS 2016b).
5. The effect on upper-income households was not significantly different from the effect on moderate-income households.
6. These four types of shock accounted for 32 percent of leakages of low-income workers with less than a high-school education.
7. Withdrawals may have been triggered by shocks experienced by non-resident family members who are not included in the SIPP data. To maintain statistical power with a relatively small sample, the study excluded spousal shocks from the model. These may have contributed to withdrawals.

BIBLIOGRAPHY

Beshears, John, James Choi, Christopher Clayton, Christopher Harris, David Laibson, and Brigitte Madrian. (2014) “Optimal Illiquidity” Unpublished Working Paper.

Butrica, Barbara A., Sheila R. Zedlewski, and Philip Issa. (2010) “Understanding Early Withdrawals from Retirement Accounts” Urban Institute The Retirement Policy Program Discussion Paper 10-02.

Munnell, Alicia H., and Anthony Webb. (2015) “The Impact of Leakages from 401(k)s and IRAs” Center for Retirement Research at Boston College Working Paper 2015-02.

Vanderhei, Jack, Sarah Holden, Craig Copeland, and Luis Alonso. (2012) “401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2011.” Issue Brief No. 380. Washington, DC: Employee Benefit Research Institute.

United States Government Accountability Office. (1997) “401(k) Pension Plans: Loan Provisions Enhance Participation But May Affect Income Security for Some.” GAO/HEHS-98-5 (Washington, D.C.: Oct. 1, 1997).

U.S. Board of Governors of the Federal Reserve System. (2014) Financial Accounts of the United States: Flow of Funds, Balance Sheets, and Integrated Macro- economic Accounts. Washington, DC.

U. S. Census Bureau. (2008) Survey of Income and Program Participation

U.S. Internal Revenue Service. (2016a) “Additional Tax on Early Distributions from Retirement Plans Other Than IRAs” Tax Topic 558. <https://www.irs.gov/taxtopics/>

U.S. Internal Revenue Service. (2016b) “Additional Tax on Early Distributions from Traditional and Roth IRAs” Tax Topic 557. <https://www.irs.gov/taxtopics/>

TECHNICAL APPENDIX

The samples comprise 7,163 401(k) plan participants and 2,169 individuals who had an IRA account but did not participate in a 401(k) plan. Appendix Table 1 reports descriptive statistics.

The study uses probit models to estimate the effects of shocks on the probability of withdrawing money from the accounts. It estimates models separately on 401(k) participants and on IRA account holders who did not participate in a 401(k) plan. The dependent variable in the 401(k) participant model takes the value one if an individual withdraws from either his 401(k) plan or IRA account, zero otherwise. The dependent variable in the IRA model takes the value one if the individual withdraws from her IRA, zero otherwise.

The study defines shocks as follows:

Job-loss: Respondent declares their main reason for leaving job as lay off, discharge, firing, or employer bankruptcy or sale, temporary job ending, or slack work or business conditions.

Job-switch: Respondents quit the job in order to find another job.

Onset of poor health: Respondent loses their job as a result of sickness and poor health, or experiences a work limiting disability during the period of study.

Divorce or widowhood: Respondents marital status changes from married to divorced or widowed during the period of study

In one specification, the model assumes that the impacts of shocks do not vary with income. The study then relaxes this assumption and allows the impacts of shocks to vary with household income. To illustrate, in the models in which shocks are interacted with income, one indicator variable takes the value one if an individual experienced job-loss, zero otherwise. The coefficient on this variable measures the impact of job-loss on the probability of a low-income household withdrawing. A second indicator variable takes the value one if the individual experienced job-loss and lived in a moderate or upper-income household, zero otherwise. This coefficient measures the incremental effect of being in a moderate or upper-income household on the probability of leaking and the sum of the first and second indicator variables measures the effect of being in a moderate-income

household on the probability of withdrawing. A third indicator variable takes the value one if the individual experienced job-loss and lived in an upper-income household, zero otherwise. This coefficient measures the incremental effect of being in an upper-income household on the probability of leaving compared to the coefficient for moderate-income households.

The study sorts households by labor market earnings and classifies those below the 50th Percentile as low-income, those between the 50th

and 80th percentile as moderate-income, and those above the 80th percentile as upper-income.

Appendix Table 2 reports marginal effects for all explanatory variables. For continuous variables, the marginal effect measures the effect of a one-unit change in the explanatory variable on the probability of a base case individual withdrawing. For the indicator variables, it measures the impact of the shock on the probability that an individual in that income category withdraws, assuming that he only experienced a shock of that type.

APPENDIX TABLE 1: SAMPLE DESCRIPTIVE STATISTICS: MEAN VALUES

Variables	All		Low Income		Moderate Income		Upper Income	
	Have 401(k)	Only IRA	Have 401(k)	Only IRA	Have 401(k)	Only IRA	Have 401(k)	Only IRA
Withdrawal	0.083	0.066	0.110	0.088	0.086	0.059	0.050	0.047
Race								
Black	0.092	0.044	0.145	0.053	0.081	0.047	0.049	0.029
Hispanic	0.088	0.052	0.124	0.059	0.082	0.066	0.058	0.028
Gender								
Female	0.478	0.535	0.511	0.521	0.459	0.537	0.467	0.549
Education								
Less Than High School	0.015	0.019	0.032	0.032	0.011	0.015	0.002	0.007
Some College	0.348	0.349	0.420	0.409	0.371	0.369	0.241	0.253
Bachelor's Degree or More	0.459	0.488	0.280	0.379	0.445	0.457	0.667	0.659
Shocks								
Job Loss	0.067	0.118	0.079	0.147	0.064	0.115	0.059	0.084
Poor Health	0.065	0.066	0.091	0.094	0.066	0.058	0.037	0.042
Job Switch	0.046	0.034	0.054	0.042	0.044	0.030	0.040	0.028
Divorce	0.007	0.010	0.010	0.007	0.007	0.007	0.004	0.015
Total # of Observations	7,163		2,136		2,743		2,284	

Source: See Figure 1.

Note: Calculated means are weighted. Number of observations is not weighted.

APPENDIX TABLE 2: PROBIT MARGINAL EFFECTS - PROBABILITY OF WITHDRAWING FROM RETIREMENT ACCOUNTS 2009-2010

	Have 401(k)		Have Only IRA	
	No Interactions	With Interactions	No Interactions	With Interactions
Race (White is omitted)				
Black	0.044***	0.042***	0.030	0.025
	(0.010)	(0.010)	(0.019)	(0.019)
Hispanic	0.000	-0.001	-0.001	-0.002
	(0.013)	(0.013)	(0.022)	(0.022)
Gender (Male is omitted)				
Female	0.010	0.009	-0.011	-0.012
	(0.006)	(0.006)	(0.009)	(0.009)
Education (Less than High School is omitted)				
High School	-0.022	-0.025	-0.031	-0.035
	(0.028)	(0.028)	(0.045)	(0.045)
Some College	0.000	0.001	0.016	0.017
	(0.009)	(0.009)	(0.011)	(0.011)
College or More	-0.032***	-0.030***	0.012	0.013
	(0.011)	(0.011)	(0.011)	(0.011)
Shocks				
Job Loss	0.047***	0.076***	0.050***	0.052***
	(0.011)	(0.017)	(0.014)	(0.018)
Moderate Income		-0.046*		0.010
		(0.024)		(0.023)
Upper Income		-0.007		-0.030
		(0.028)		(0.029)
Poor Health	0.040***	0.060***	0.016	0.049**
	(0.011)	(0.016)	(0.015)	(0.020)
Moderate Income		-0.047*		-0.453
		(0.024)		(14.879)
Upper Income		0.025		0.384
		(0.032)		(14.878)
Job Switch	0.032**	0.018	0.007	-0.001
	(0.014)	(0.023)	(0.023)	(0.036)
Moderate Income		0.049		0.015
		(0.030)		(0.052)
Upper Income		-0.079**		-0.010
		(0.037)		(0.061)
Divorce	0.078**	0.120***	-0.001	-0.390
	(0.031)	(0.044)	(0.047)	(49.436)
Moderate Income		-0.138*		0.006
		(0.080)		(66.430)
Upper Income		0.119		0.429
		(0.095)		(44.375)
Observations	7,163	7,163	2,169	2,169

Source: See Figure 1.

Note: Table reports probit marginal effects for the base groups (all dummies are set at zero for calculating the margins). Interaction coefficients are incremental. Standard errors in parentheses (***) p<0.01, ** p<0.05, * p<0.1).

THE
NEW
SCHOOL

SCHWARTZ CENTER
FOR ECONOMIC
POLICY ANALYSIS