

Appendix 1

Census Data

Census data have not been used much to track financial decisions, and one may naturally have concerns about the reliability of the data, as well as comparability with standard data sources, such as the Survey of Consumer Finances. We compare the means and distributions of our variables of interest with the 2001 SCF and describe the relationship between investment income and financial wealth from the SCF. For the SCF, we aggregate non-taxable investment income (x5706), other interest income (x5708), dividends (x5710), and income from net rent, trusts, or royalties (x5714). In both the Census and the SCF, reported numbers are taken as pre-tax income. Neither the SCF nor Census measure includes capital gains.

Appendix Table A2 presents means, standard deviations, and percentiles for investment income. The sample is limited to households aged 24-54 (the cohorts affected by the changes in education policies) who earn investment income below \$50,000 and above -\$10,000 (to match the top- and bottom-coding in the Census). Since the SCF measures household level income, we aggregate the individual income in the Census. The distributions are remarkably similar. The mean investment income is \$1103 in the SCF and \$1097 in the Census, and the standard deviations are almost identical. A nearly identical 30 percent of households report receiving any investment income. The percentiles at the bottom of the table confirm that the distributions are comparable.

The Census provides information on investment income, not financial wealth. If the relationship between financial wealth and investment income is highly non-linear, results using one measure may not translate well to the other. Note that this is not a concern for our preferred dependent variable, whether or not the individual has any strictly positive or strictly negative

investment income. In the SCF sample, almost 10 percent of those with zero investment income have zero financial wealth, while none of the surveyed households with non-zero investment income have zero financial wealth. More than 50 percent of those with zero investment income, but less than 10 percent of those with non-zero investment income, have less than \$10,000 in financial wealth. Appendix Figure A2 plots the relationship between investment income and financial wealth, using data from the SCF. We find a nearly linear relationship over the entire range of relevant investment income (up to \$25,000). Further, the use of a third dependent variable, the percentile location in the distribution of investment income, should also mitigate concerns about strong non-linearities. This analysis gives us confidence that investment income is a good proxy for asset accumulation and that findings based on investment income would also generate similar findings for asset holdings.

Appendix Table 1

Estimates of the Effect of Personal Finance Mandates for those Residing in State of Birth

	Any Investment Income (1)	Investment Income (2)	Investment Income Percentile (3)	Value of Financial Assets (4)	Equity in Property (5)
Panel A					
Exposed	-0.0013 (0.0021)	-20.31 (12.62)	0.06 (0.25)	-832 (1013)	848 (902)
N	1,689,685	1,681,799	1,689,685	24,182	33,558
Panel B					
5 Years Prior	-0.0002 (0.0034)	-15.15 (27.91)	-0.03 (0.32)	2262 (1944)	1255 (1815)
4 Years Prior	-0.0033 (0.0037)	-36.58 (37.64)	-0.38 (0.41)	-83 (2783)	-741 (2222)
3 Years Prior	0.0002 (0.0019)	-25.99 (26.50)	-0.15 (0.24)	-281 (2550)	-4953 * (2773)
2 Years Prior	-0.0016 (0.0018)	-21.77 (30.00)	-0.39 (0.26)	-813 (2759)	-614 (2156)
1 Year Prior	-0.0011 (0.0033)	-27.84 (29.94)	-0.10 (0.38)	2049 (2770)	-893 (1846)
First Affected					
1 Year Post	0.0009 (0.0017)	-47.70 ** (22.85)	0.05 (0.20)	-907 (2445)	-2230 (2093)
2 Years Post	-0.0074 *** (0.0027)	-47.14 * (25.91)	-0.46 ** (0.21)	1232 (3456)	1172 (1255)
3 Years Post	-0.0029 (0.0025)	-31.60 (26.13)	-0.11 (0.29)	715 (2886)	-172 (2221)
4 Years Post	-0.0017 (0.0030)	-61.62 ** (24.18)	-0.10 (0.39)	2900 (3183)	-1653 (2271)
5 Years Post	-0.0051 ** (0.0022)	-54.91 ** (22.21)	-0.24 (0.35)	-1822 (2553)	-1562 (1710)
N	1,689,685	1,681,799	1,689,685	24,182	33,558
F-Tests of Prior vs. Post					
P-value (1 yr)	0.53	0.30	0.64	0.14	0.57
P-value (2 yrs)	0.29	0.15	0.87	0.75	0.85
P-value (3 yrs)	0.21	0.22	0.84	0.98	0.15
P-value (4 yrs)	0.53	0.14	0.64	0.47	0.3
P-value (5 yrs)	0.29	0.08	0.88	0.84	0.75
P-value (9 yrs)	0.48	0.00	0.55	0.42	0.8
P-value (14 yrs)	0.78	0.03	0.02	0.21	0.45

Notes: This table describes the evolution of financial outcomes for individuals graduating prior to, and following, the imposition of mandated personal finance education in high schools. The table mirrors Table 2, with the only difference being that the sample is restricted to individuals still residing in their state of birth. Columns (1)-(3) use data from the 5% sample of the 2000 Census: the dependent variable in column (1) is a dummy for whether the household reported any investment income; in column (2), it is the amount of investment income received; in column (3), it is the individual's percentile ranking in the nationwide investment income distribution. Columns (4)-(5) use data from the SIPP: in column (4), the dependent variable is the value of financial assets the individual holds and in column (5), it is the value of equity the individual holds in real estate. In Panel A, the independent variable of interest is a dummy variable for whether the individual graduated from high school after the imposition of the mandate. In Panel B, the independent variables of interest are event-time variables indicating whether an individual graduated from high school X years prior to the imposition of the mandate or X years following the imposition of the mandate. We estimate these event-time variables for fifteen years prior to, and following, the imposition of a mandate, a single dummy for "15 or more years" following the mandate and a single dummy for "16 or more years" prior to the mandate; the omitted group is individuals graduating the year the mandate was passed. For brevity only years -5 to 5 are reported. Additional controls in all regressions include sex, race, state of birth dummies and year of birth dummies. All samples include individuals born between 1946 and 1965. Top and bottom-coded values (see text for details) are dropped in columns (2), (4)-(5). The final lines of the table test whether the average value of the coefficients on the years immediately prior to the imposition of the mandate are equal to those indicating the years immediately following the mandate. Standard errors, corrected for arbitrary correlation within

state of birth, are in parentheses. (Numbers with *** indicate significance at the 1-percent level, ** indicates significant at the 5-percent level and * indicates significance at the 10-percent level.)

Appendix Table 2

Comparison of Data from 2000 Census with 2001 SCF

	Investment Income		Any Investment Income	
	SCF	Census	SCF	Census
Mean	1103	1097	0.31	0.29
Standard Deviation	4282	4272	0.46	0.45
Min	-5100	-10000	0	0
Max	49800	49990	1	1
Percentiles				
1%	0	0	0	0
10%	0	0	0	0
25%	0	0	0	0
Median	0	0	0	0
75%	100	50	1	1
90%	2000	2000	1	1
99%	25000	24000	1	1
N	2,451	2,738,525	2,656	2,760,735

Notes: This table compares the means, standard deviations, and percentiles for the key variables from the Census with the corresponding variables from the Survey of Consumer Finances. The Census data are from the 2000 Census, while the SCF data are from the 2001 Survey of Consumer Finances. The sample in both surveys is adults aged 24-54. Since the SCF measures household level outcomes, we aggregate the investment income variables in the Census to the household level as well. Households in which any member's investment income was top- or bottom-coded (greater than \$50,000 in earnings or \$10,000 in losses) and households in which the sum of income fell in this range were dropped when summarizing investment income in the Census. To match this, households with greater than \$50,000 in earnings or \$10,000 in losses were dropped from the SCF as well. N indicates the number of unique individuals used to estimate numbers; for the SCF, appropriate weights were used.

Appendix Table 3

The Effect of Personal Finance Mandates on Asset Accumulation by Education

Dependent Variable:	Any Investment Income	Investment Income	Investment Income Percentile	Value of Financial Assets	Equity in Real Estate
Data Source:	US Census (1)	US Census (2)	US Census (3)	SIPP (4)	SIPP (5)
Full sample excluding dropouts					
Exposed	-0.0013 (0.002)	-23.96 (16.89)	-0.03 (0.15)	-27.45 (1085.42)	434.36 (1212.75)
N	2,532,497	2,516,781	2,532,497	32,247	47,243
P-value (5 yrs)	0.50	0.20	0.78	0.39	0.87
People with Less than High School Education					
Exposed	-0.0026 (0.004)	-19.69 (16.92)	0.15 (0.59)	129.76 (620.04)	-1155.46 (1906.05)
N	209,515	209,292	209,515	3,791	3,904
P-value (5 yrs)	0.39	0.34	0.98	0.80	0.98
People with Exactly High School Education					
Exposed	-0.0010 (0.002)	-0.78 (11.19)	-0.09 (0.18)	815.17 (1015.38)	-171.16 (1926.70)
N	891,861	890,203	891,861	12,012	15,412
P-value (5 yrs)	0.95	0.93	0.46	0.06	0.94
People with More than High School Education, but no College Degree					
Exposed	0.0013 (0.002)	-22.30 (17.20)	0.34 (0.22)	792.47 (1331.96)	59.93 (1752.31)
N	893,364	889,765	893,364	12,918	18,317
P-value (5 yrs)	0.68	0.20	0.41	0.30	0.66
People with 11th, 12th or some College					
Exposed	0.0001 (0.002)	-12.77 (10.38)	0.13 (0.18)	446.19 (1101.94)	-166.46 (1437.81)
N	1,847,039	1,841,710	1,847,039	26,046	34,907

P-value (5 yrs)	0.83	0.25	0.44	0.16	0.69
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Notes: This table describes the evolution of financial outcomes for individuals graduating prior to, and following, the imposition of mandated personal finance education in high schools, by level of education. Please see the notes for Table 2 for more details. Standard errors, corrected for arbitrary correlation within state of birth, are in parentheses. (Numbers with *** indicate significance at the 1-percent level, ** indicates significance at the 5-percent level and * indicates significance at the 10-percent level.)

Appendix Table 4

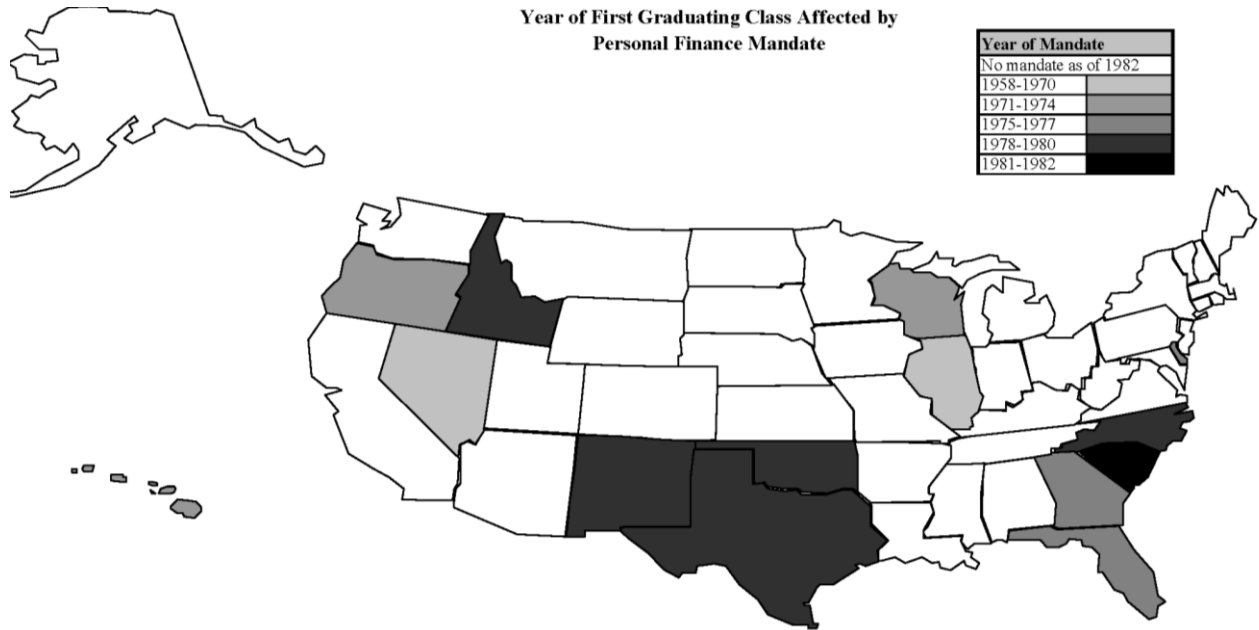
The Effect of Increased Math Requirements on Asset Accumulation by Education

Dependent Variable:	Any Investment Income	Investment Income	Investment Income Percentile	Value of Financial Assets	Equity in Real Estate
Data Source:	US Census (1)	US Census (2)	US Census (3)	SIPP (4)	SIPP (5)
Including High School Drop-outs					
Exposed	0.0033 *** (0.0010)	12.81 (21.29)	36.25 *** (10.37)	-591.71 (721.41)	1424.85 ** (607.45)
N	1,798,443	1,798,443	1,650,550	22,451	30,162
P-value (5 yrs)	0.006	0.66	0.005	0.63	0.00
People with Exactly High School Education					
Exposed	0.0050 *** (0.0016)	6.11 (7.72)	53.13 *** (15.92)	-220.50 (637.39)	-1338.38 (1161.56)
N	489,258	488,947	440,328	6,879	8,342
P-value (5 yrs)	0.018	0.70	0.018	0.74	0.83
People with More than High School Education, but no College Degree					
Exposed	0.0023 (0.002)	1.04 (13.46)	22.14 (15.40)	-1160.93 (718.39)	448.10 (1209.24)
N	532,843	532,119	495,787	8,065	10,890
P-value (5 yrs)	0.104	0.99	0.094	0.54	0.29
People with High School Degree, but no College Degree					
Exposed	0.0040 *** (0.001)	4.66 (8.75)	41.33 *** (10.75)	-685.72 (541.24)	-335.52 (811.86)
N	1,022,101	1,021,066	936,115	14,944	19,232
P-value (5 yrs)	0.006	0.78	0.004	0.896	0.498
People with College Degree					
Exposed	-0.0011 (0.002)	8.81 (19.43)	-12.13 (22.74)	-780.79 (1894.87)	4972.90 *** (1695.76)
N	432,233	430,243	411,028	5,583	8,959

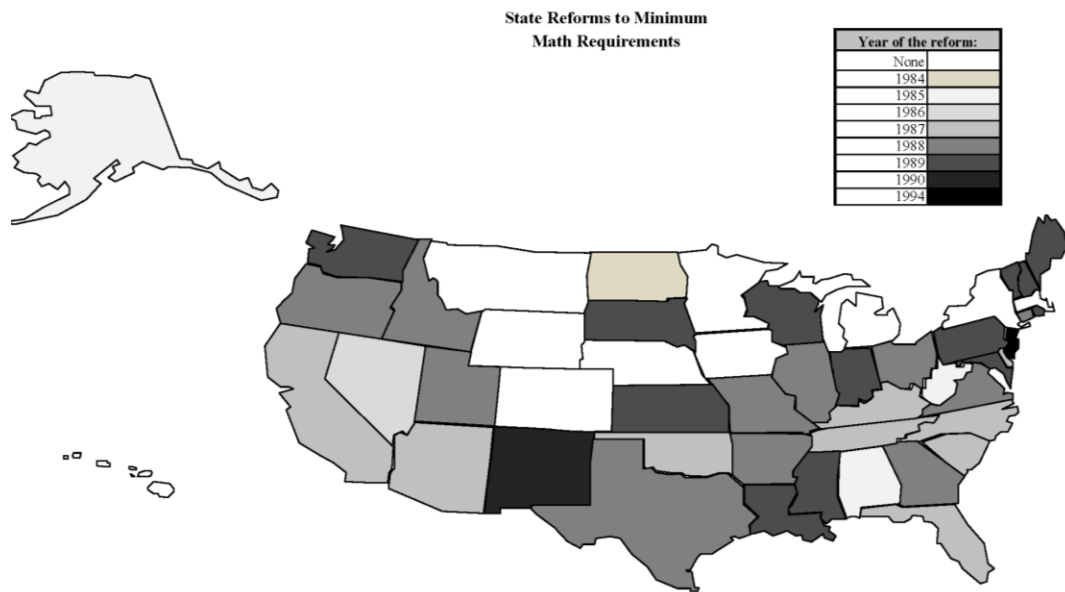
<u>P-value (5 yrs)</u>	<u>0.434</u>	<u>0.27</u>	<u>0.491</u>	<u>0.934</u>	<u>0.003</u>
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Notes: This table describes the evolution of financial outcomes for individuals graduating prior to, and following, the imposition of increased math requirements in high schools, by education.

Please see the notes for Table 5 for more details. Standard errors, corrected for arbitrary correlation within state of birth, are in parentheses. (Numbers with *** indicate significance at the 1-percent level, ** indicates significance at the 5-percent level and * indicates significance at the 10-percent level.)



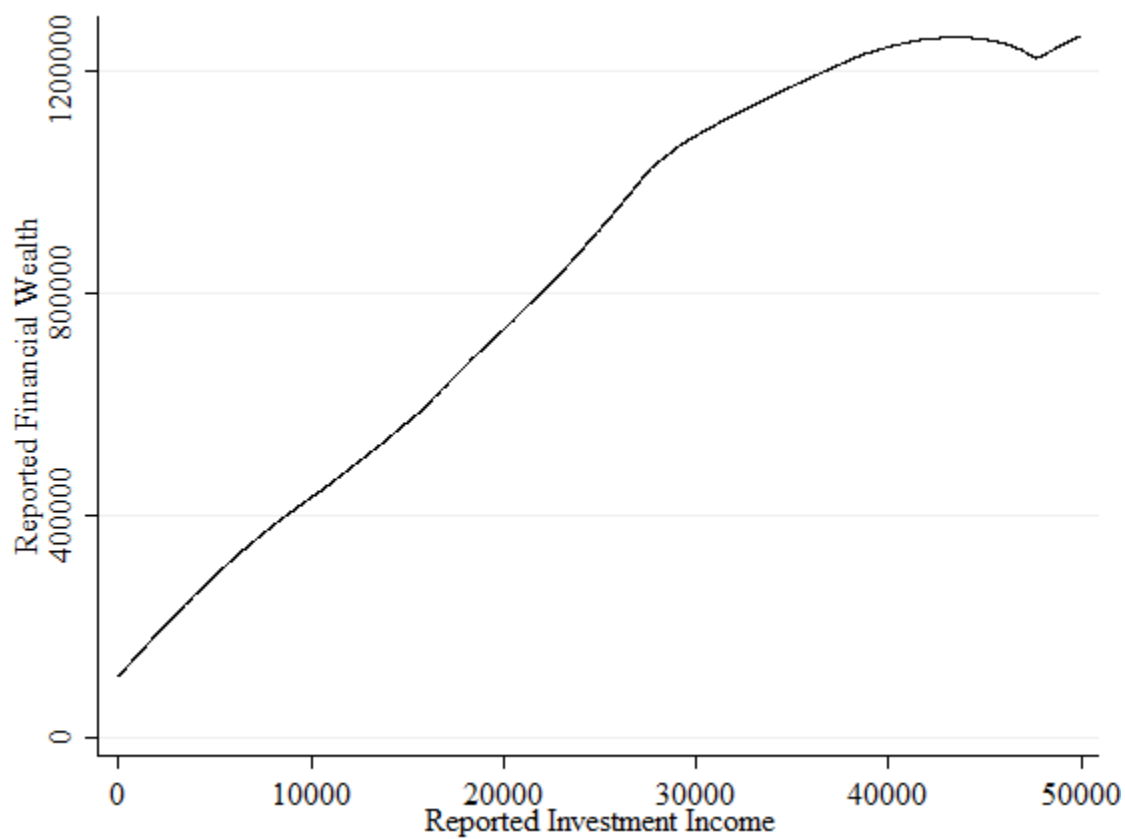
Source: Financial education mandates list in Bernheim, Garrett, and Maki (2001).



Source: State mathematics requirements identified in Goodman (2009).

Figure A1

Map of States Affected by Financial Education and Math Curriculum Mandates



Notes: This graph presents a local linear regression of the relationship between reported investment income and reported Financial Wealth, for households whose reported investment income was between \$0 and \$50,000. The sample is restricted to adults aged 24-54. Data are from the 2001 Survey of Consumer Finances.

Figure A2

Relationship between Reported Investment Income and Reported Financial Wealth