

# Student Debt, Risk Preferences, and Household Net-worth

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# The problem

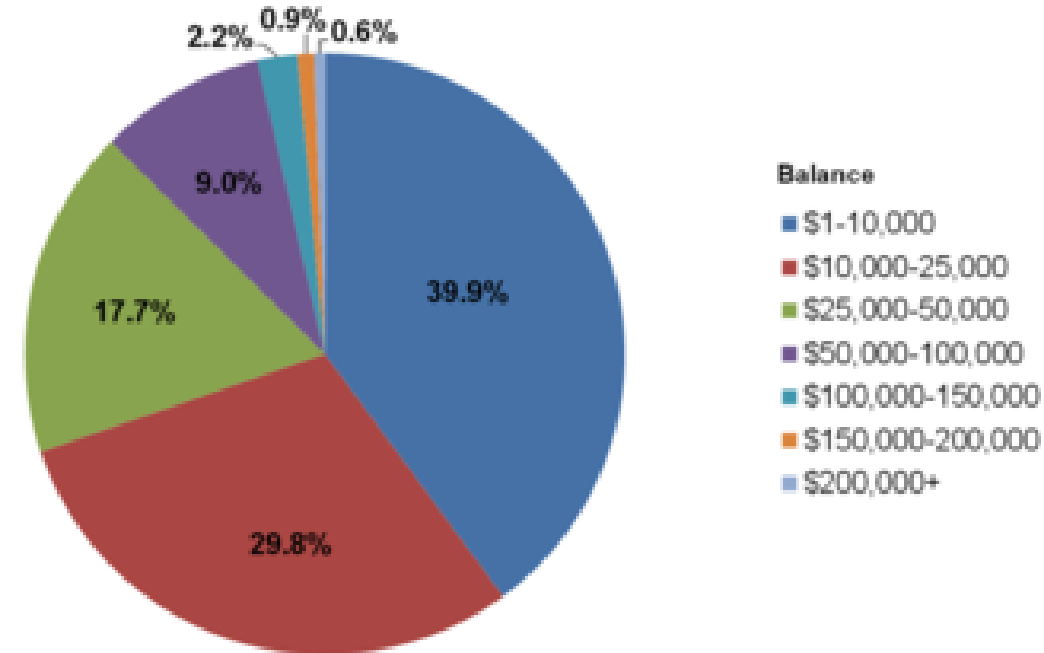


Student loans  $\geq$  \$1.52 Trillion.

5 year growth = 50%

Taxpayer funded loans = 80 – 90%

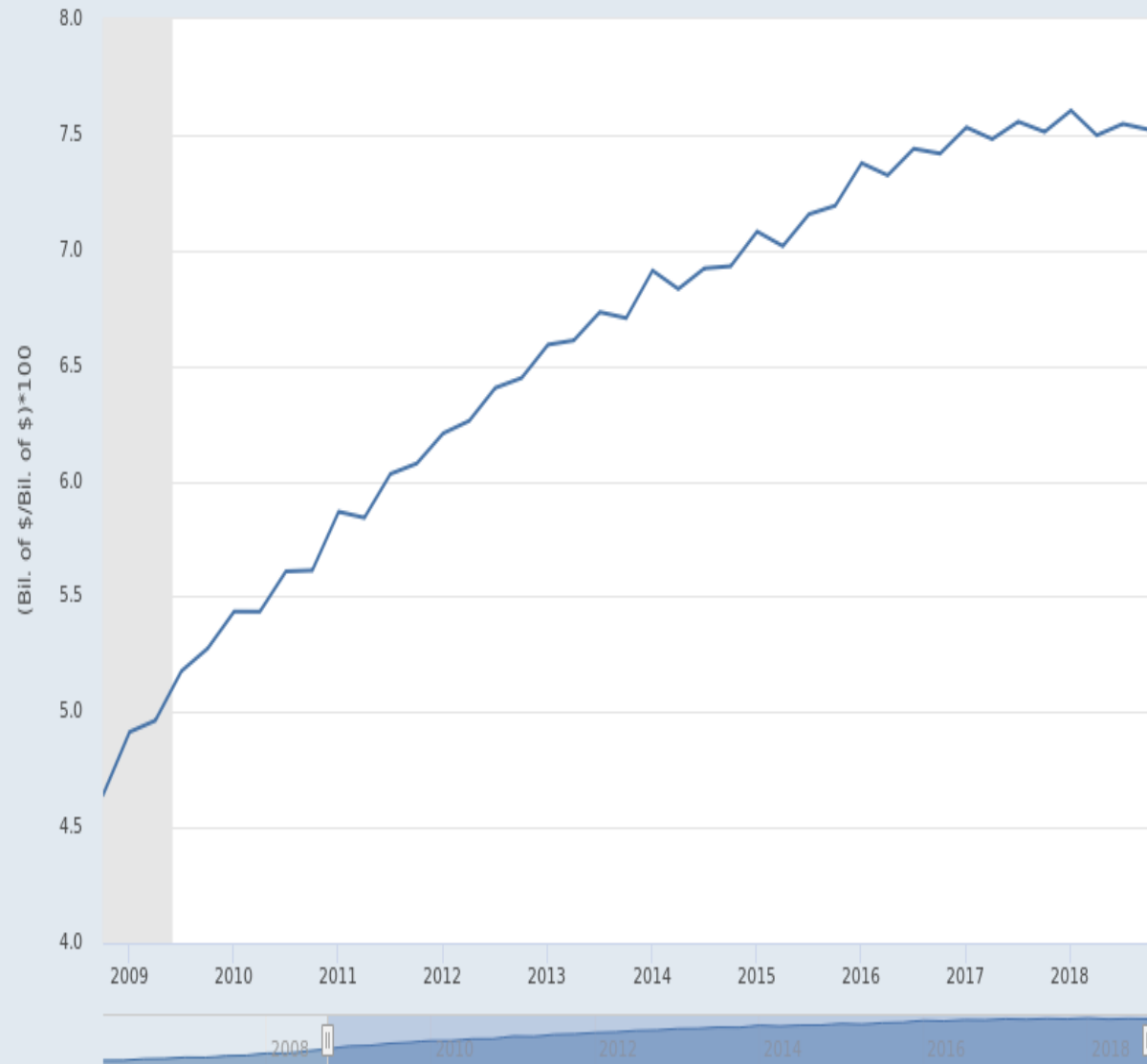
Distribution of U.S. Student Loan Debt Balance as of Q4 2012



Source: Federal Reserve Bank of NY

Average Loan outstanding is \$40,000 approximately.

FRED (Student Loans Owned and Securitized, Outstanding/Gross Domestic Product)\*100

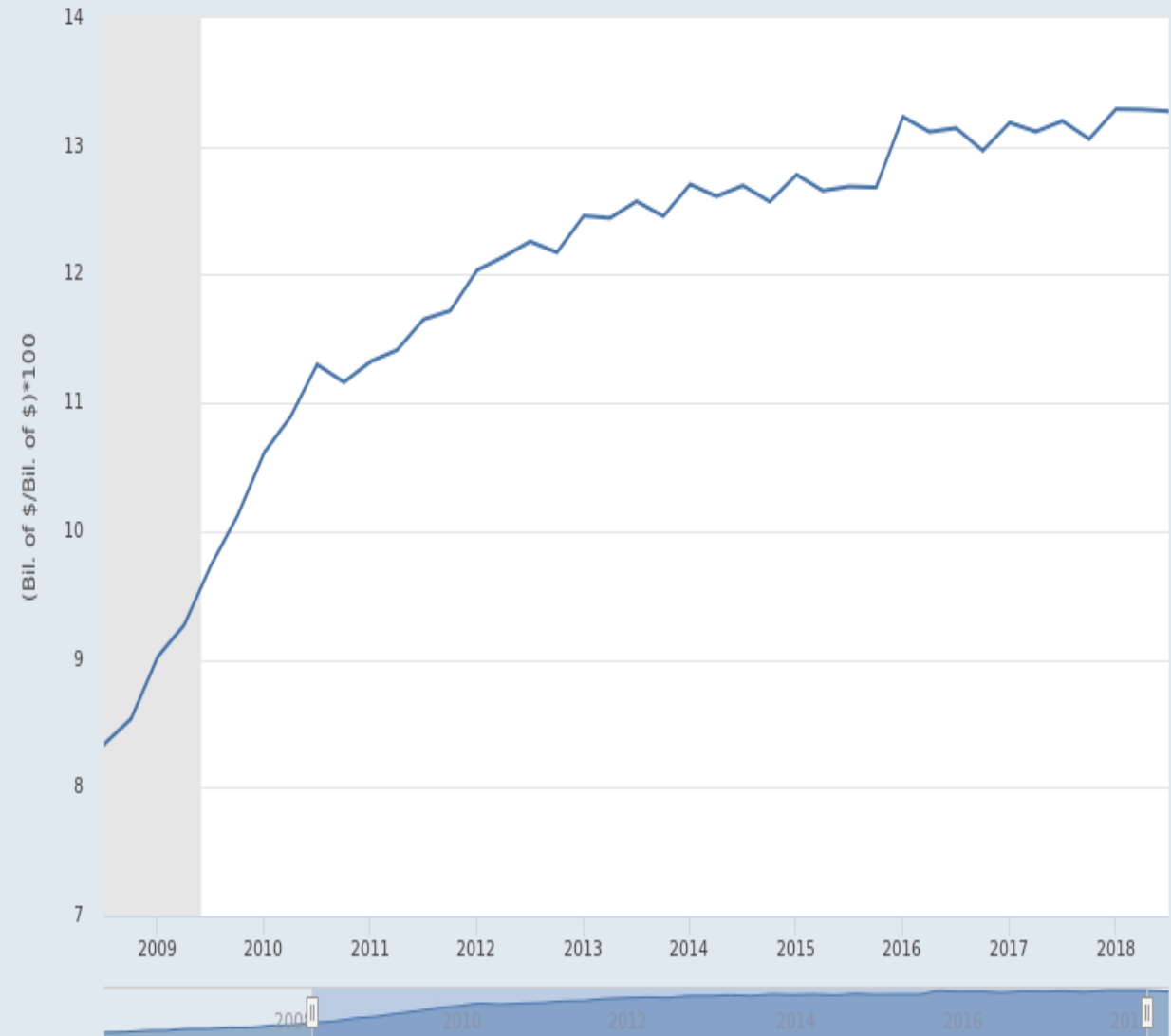


Shaded areas indicate U.S. recessions

Sources: BEA, Board of Governors, OECD

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FRED (Student Loans Owned and Securitized, Outstanding/Total Consumer Credit Owned and Securitized, Outstanding)\*100

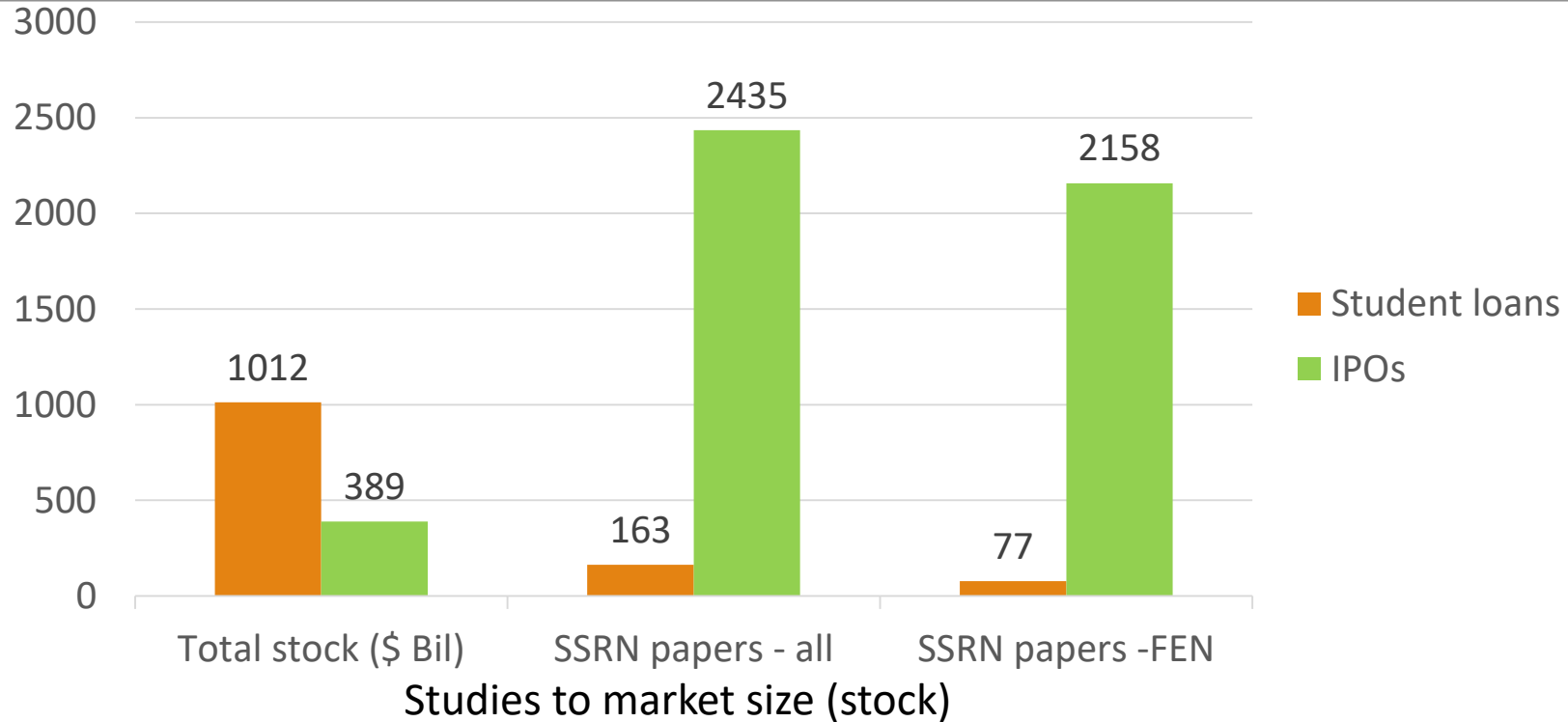


Shaded areas indicate U.S. recessions Source: Board of Governors of the Federal Reserve System (US)

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# Where are the academics?

Academic research compared to market size



	Student loans	IPO	M&A
SSRN-all	16.11%	625.48%	49.39%
SSRN-FEN	7.61%	554.33%	20.83%

# The Main Story

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Lifecycle investment of individuals follow a pattern that starts off with more risky investments at a young age, which then gradually adjusts to more conservative and less risky allocations over their lifetime.

- Intuition is that investment returns go hand in hand with risk, so initially taking on higher risk leads to higher lifetime net-worth.
- Long-term wealth or net worth of individuals will be correlated with the extent of risk-taking in their financial investments.

Individuals investing in higher return portfolios need to be able to weather short term shocks to obtain long term risk taking benefits.

# The Main Story

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Student debt induces liquidity constraints early on in career, which in turn reduces risk taking.

- Inability to invest initially in high return assets, when one needs to.
- Inability to weather short-term shocks to wealth. Exacerbated by lack of collateral and lack of ability to discharge loans through personal bankruptcy.

Feedback loop: negative impact on risk taking in early years affect long-term wealth accumulation, which then may affect the next generation.

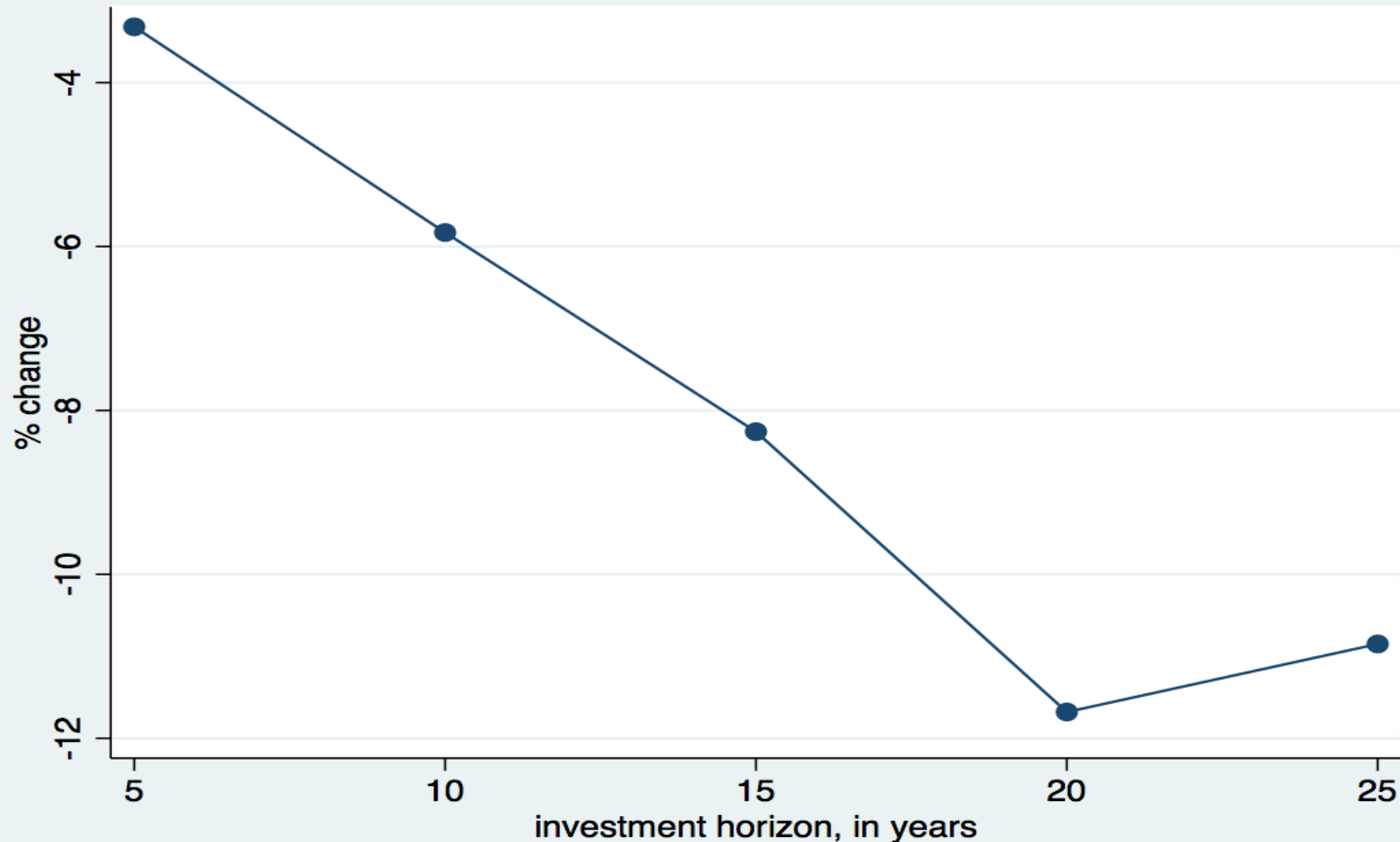
# The Main Story

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Not observed for any other type of loans – such as credit card debt or car loans or mortgages.

Needs further research – One potential explanation of increasing inter-generational income-inequality.

# The Impact of Net Worth



Over a 20-year-period households with student debt would have **12 to 18 percent lower net worth** than without student debt.



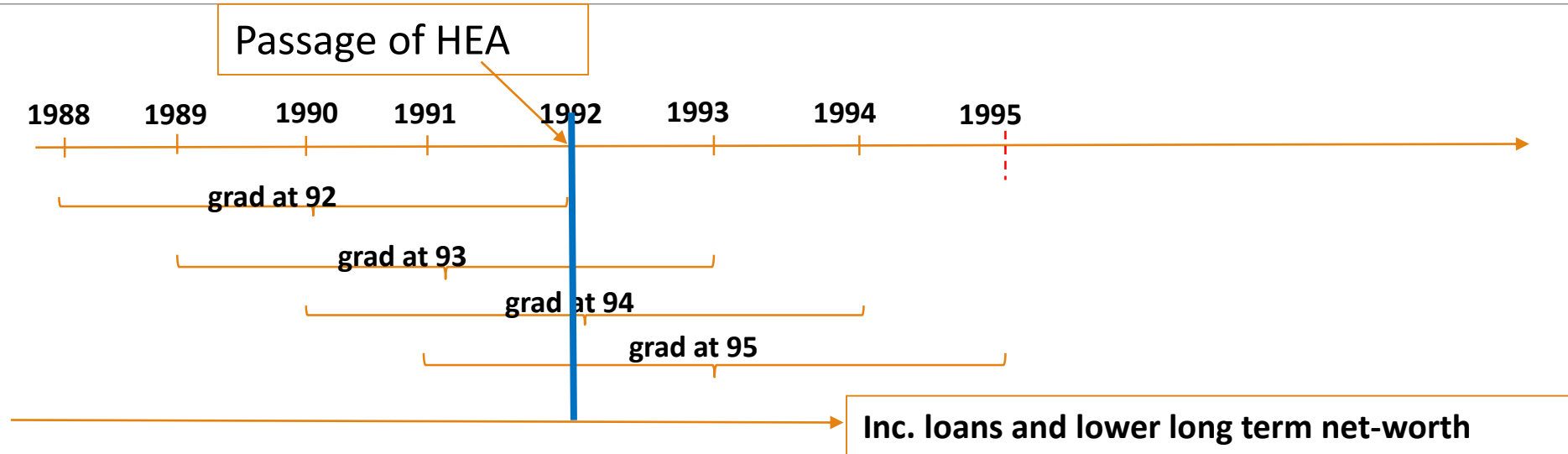
# Data- Survey of Consumer Finances.

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Household finance data, publicly available.

- Triennial survey of households.
- Different cross-section each year.
- Rich household finance data.
- Survey weights.
- Limitations – top coding, anonymization.

# Identification - Federal student loans and grants around HEA of 1992



- Introduction of the HEA in 1992 led to an increase in the availability of unsubsidized and subsidized student loans after 1992.
- This greater availability of loan, while exogenous to investment portfolio risk, could have led to a change in the composition of students attending college.
- Thus, we choose the set of individuals that entered college prior to this law - No self-selection effect.

## Panel A.

	(1)	(2)	(3)	(4)
	Share of SL	Share of SL (Placebo)	Share of SL	Share of SL (Placebo)
	First Loan Year $\leq 1995$	First Loan Year $\leq 2000$	First Loan Year $\leq 1992$	First Loan Year $\leq 1997$
Higher Education*(22 at 1990)	0.244 (0.511)		-0.438 (0.445)	
Higher Education*(22 at 1991)	0.074 (0.506)		-0.363 (0.508)	
Higher Education*(22 at 1992)	1.783*** (0.480)		0.787* (0.437)	
Higher Education*(22 at 1993)	3.685*** (0.635)		2.586*** (0.561)	
Higher Education*(22 at 1994)	4.205*** (0.464)		2.418*** (0.450)	
Higher Education*(22 at 1995)	5.129*** (0.674)	4.646*** (0.648)	2.550*** (0.585)	4.398*** (0.697)
Higher Education*(22 at 1996)		3.854*** (0.692)		3.722*** (0.715)
Higher Education*(22 at 1997)		3.234*** (0.744)		2.907*** (0.775)
Higher Education*(22 at 1998)		2.637*** (0.638)		2.235*** (0.759)
Higher Education*(22 at 1999)		2.825*** (0.955)		1.274 (0.846)
Higher Education*(22 at 2000)		2.745*** (0.829)		1.381* (0.753)

Panel B. Share of Risky Assets on Share of Student Loan

	(1)	(2)	(3)	(4)	(5)
	Share of RA	Share of RA	Share of RA	D(Share of RA)	Share of RA (Latent)
Share of Student Loan	-0.059*** (0.006)	-0.042*** (0.005)	-0.042*** (0.005)		-0.009*** (0.001)
D(Share of Student Loan)				-0.033*** (0.005)	

IQ change in student loans =>  
 35% lower investment in high  
 return assets such as  
 stock/bond mutual funds,  
 IRAs, Keogh accounts, etc.

# The Net Impact on Investments

	(1)	(2)	(3)
	Share of RA	Share of RA	Share of RA
D(Share of SL)	-0.029 (0.116)		
D(Share of SL)×4-Year College	-1.330*** (0.243)		
D(Share of SL)×Graduate	-1.248*** (0.265)		
Share of Student Loan		-0.008 (0.006)	
Share of Student Loan×4-Year College		-0.076*** (0.012)	
Share of Student Loan×Graduate		-0.078*** (0.014)	
Share of Student Loan×Age 17-35			-0.032*** (0.006)
Share of Student Loan×Age 36-50			-0.040*** (0.005)
Share of Student Loan×Age over 51			-0.067*** (0.010)
Age	0.079*** (0.010)	0.078*** (0.010)	0.058*** (0.011)
Gender	-0.053 (0.118)	-0.065 (0.119)	-0.053 (0.116)
Tuition	1.151 (1.152)	1.237 (1.145)	0.418 (1.180)
4-Year College	2.631*** (0.127)	1.266*** (0.193)	2.348*** (0.106)
Graduate	3.708*** (0.136)	2.345*** (0.222)	3.444*** (0.119)

**Reduces  
investments in  
High-return  
Assets by 50%  
or more.**

# The Impact of Net Worth

	(1)	(2)	(3)	(4)	(5)
	Net Worth	Net Worth	Net Worth	Net Worth	Net Worth
Share of Student Loan	-0.124*** (0.006)	-1.830*** (0.047)	-0.100*** (0.007)	-1.771*** (0.056)	
Share of Student Loan×4-Year College			-0.070*** (0.013)	-0.283*** (0.082)	
Share of Student Loan×Graduate			-0.024* (0.013)	0.090 (0.111)	
Share of SL×Length(0-3)					-1.642*** (0.057)
Share of SL×Length(4-6)					-1.842*** (0.072)
Share of SL×Length(7-9)					-2.020*** (0.106)
Share of SL×Length(>10)					-2.033*** (0.095)
Age	0.145*** (0.009)	0.126*** (0.023)	0.145*** (0.009)	0.126*** (0.023)	0.130*** (0.023)
Gender	0.697*** (0.127)	0.264 (0.315)	0.694*** (0.127)	0.256 (0.314)	0.290 (0.311)

# Conclusions

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- We find that student debt negatively affects future household net-worth.
- The primary channel is through lower investments in high return, risky financial assets in early stages of career.
- This negative relation is stronger for financially constrained households.