

Debt Stress and Mortgage Borrowing in Older Age: Implications for Economic Security in Retirement

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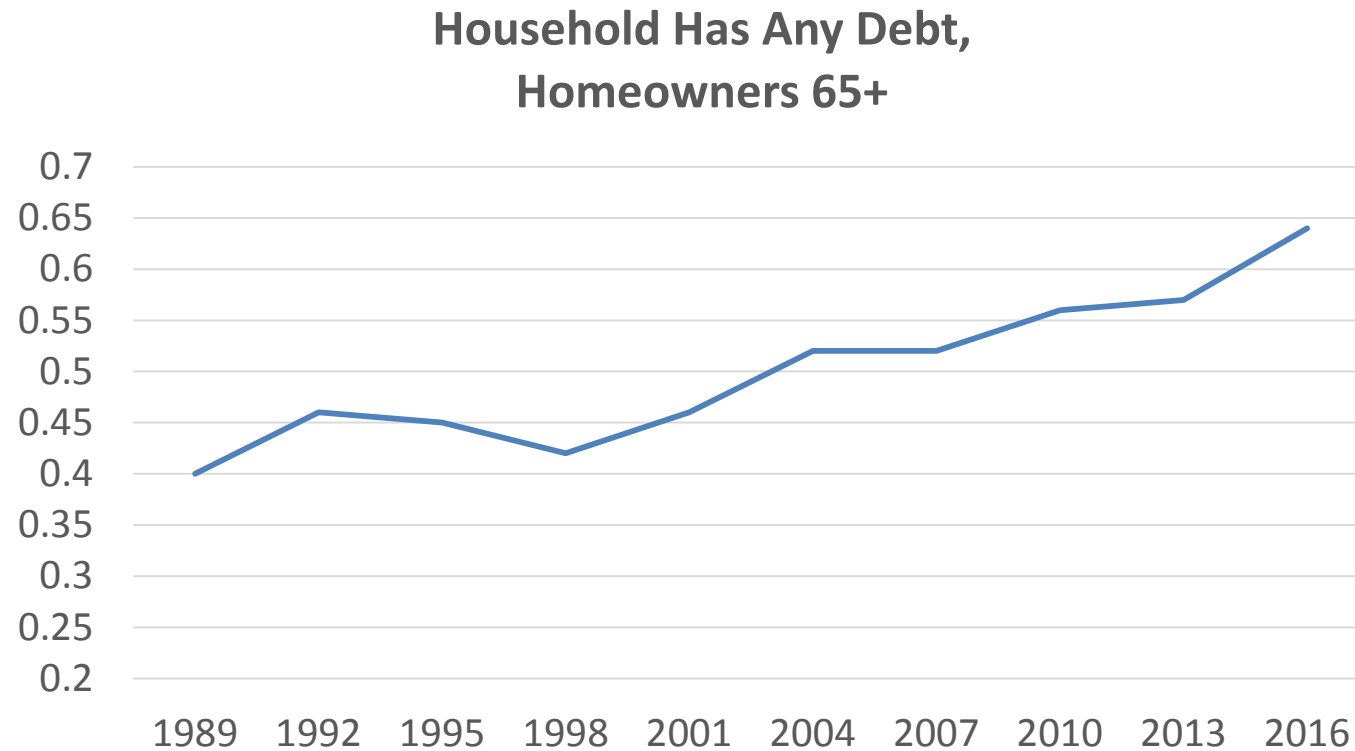
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Motivation

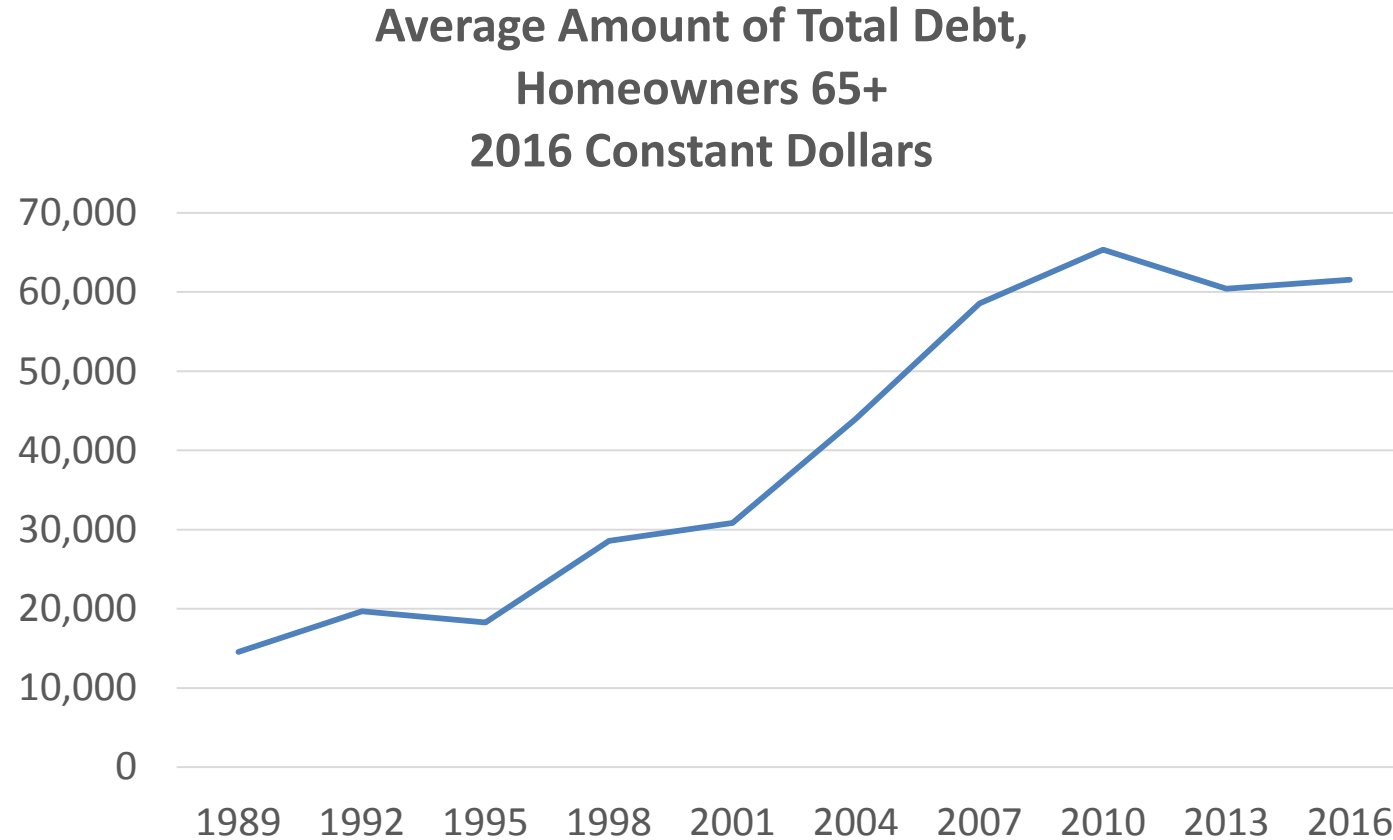
Total debt held by older adults is increasing



Source: Author's calculations from the Federal Reserve Board's Survey of Consumer Finance (SCF) data, population weighted, 2016 constant dollars

Motivation

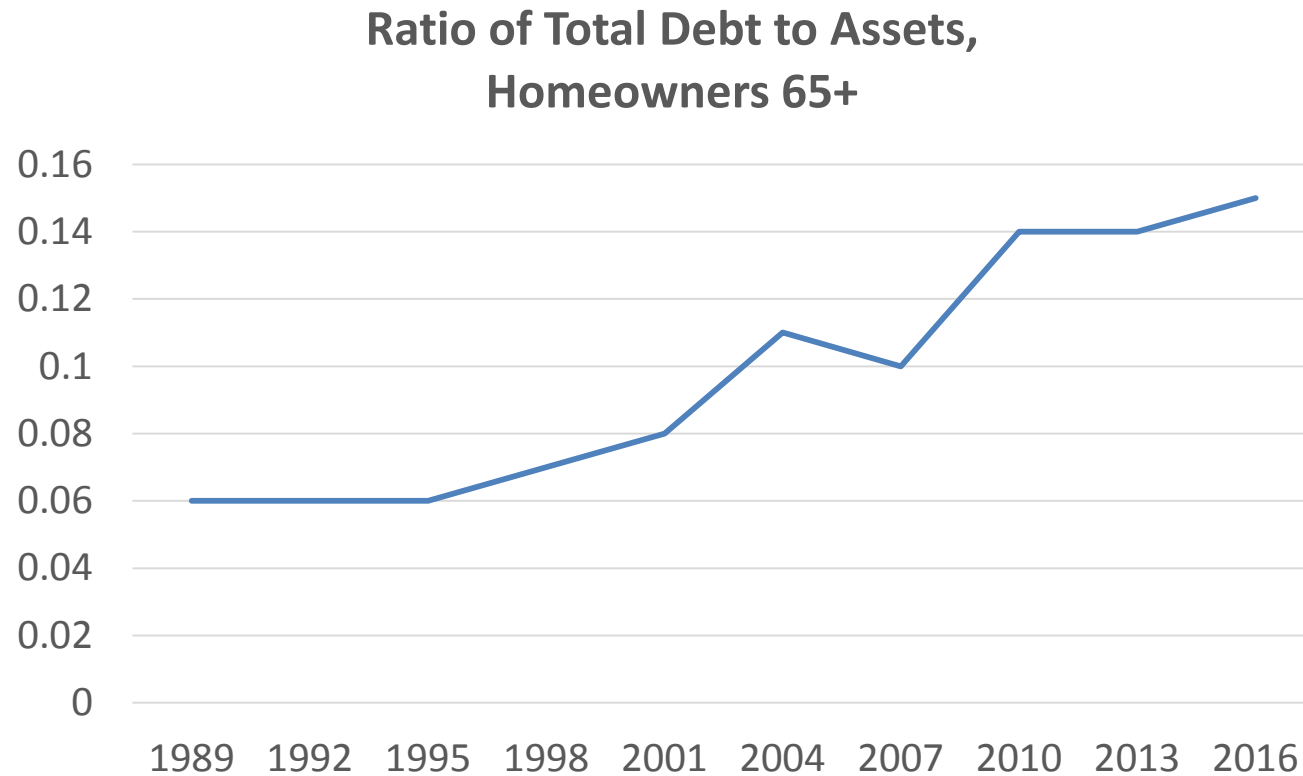
And as amount of debt held by older adults



Source: Author's calculations from the Federal Reserve Board's Survey of Consumer Finance (SCF) data, population weighted, 2016 constant dollars

Motivation

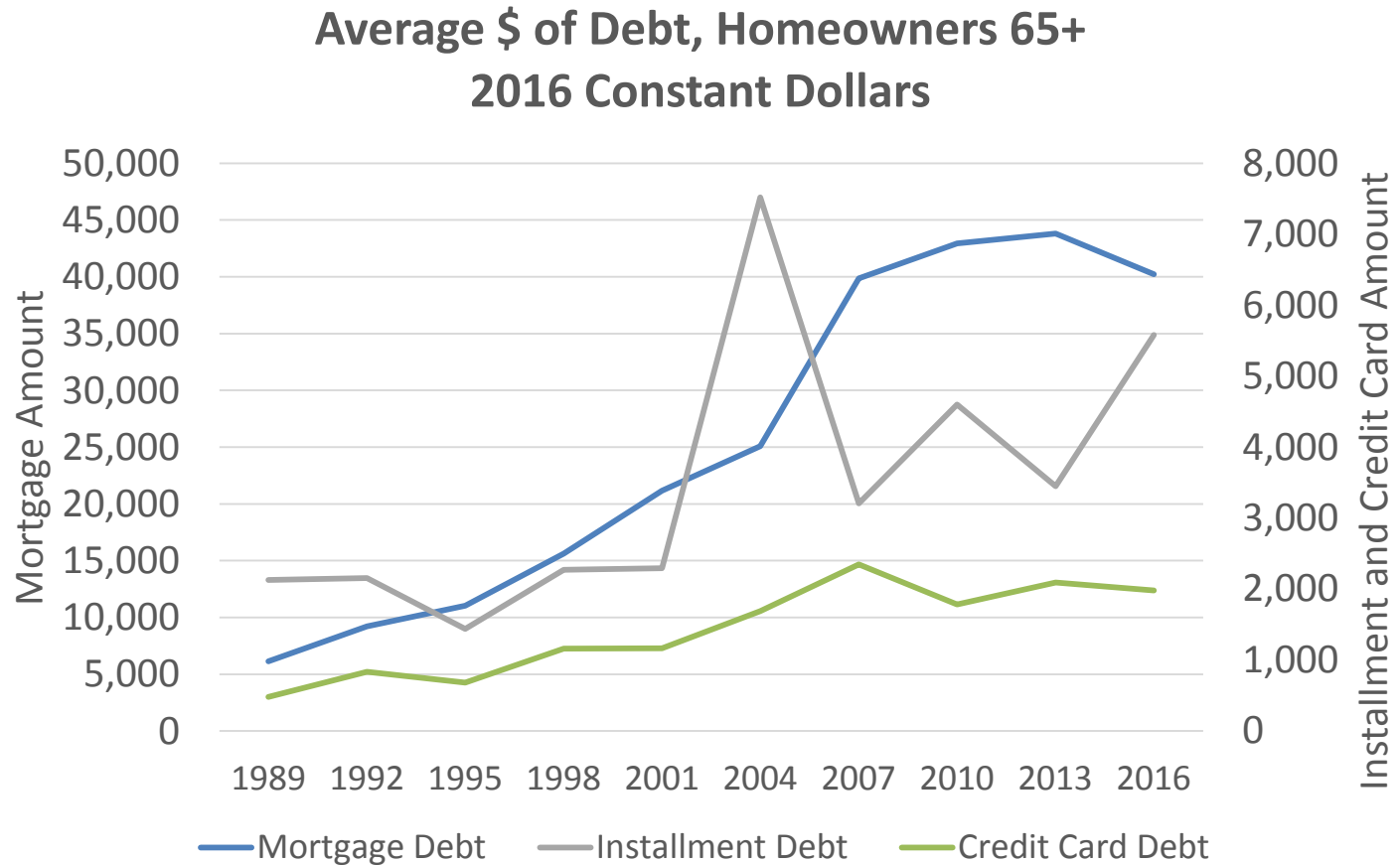
This increase in debt is not offset by an increase in assets



Source: Author's calculations from the Federal Reserve Board's Survey of Consumer Finance (SCF) data, population weighted, 2016 constant dollars

Motivation

Increases across debt types, with mortgage debt dominating



Source: Author's calculations from the Federal Reserve Board's Survey of Consumer Finance (SCF) data, population weighted, 2016 constant dollars

Motivation

Debt is not inherently “bad” or “good” – it is a form of liquidity

- Borrowing through a credit card is the primary source of consumption smoothing for US households (Fulford 2015)
- Use of credit cards increases with age; 85% of adults age 65+ hold a credit card (Fulford and Shuh 2015)
- Among senior older adults age 70 and over using a credit card, 45 percent do not pay off their balances in full each month, indicating a need for liquidity that is met through borrowing on credit cards Fulford (2015)

Motivation

But, debt has been linked to psychological stress

- Literature links increased debt with increased stress
 - (Boen and Yang 2016; Drentea and Reynolds 2015; Dunn and Mirzaie 2016; Berger, Collins, and Cuesta 2013; Pearlin et al. 1981)
- Studies also find that the amount of stress varies by type of debt (per dollar)
 - Largest for non-collateralized consumer debts
 - Payday loans and credit card debt highest
 - Smallest for mortgage debt
- Reverse mortgages are a unique type of debt available only to seniors
 - Mortgage not due (no payments) until last borrower leaves the home, as long as the borrower meets the obligations of the mortgage note
 - Money borrowed, plus associated interest and fees, are added to the balance due that continues to grow over time (mortgage “in reverse”)
 - Debt illusion?

Motivation

Debt and debt stress may affect retirement decisions

- Literature links increased debt with lower probability of claiming SS benefits
 - Servicing debts may increase incentive to remain at work and delay claiming benefits (Butrica and Karamcheva 2013, 2018)
- Changes in house value associated with delayed Social Security claiming during the housing boom 2002-2006 (Huang et al. 2016); increased liquidation of equity through mortgage borrowing?

Research Questions

1. Does debt increase psychological stress for older adults? How does this vary by type of debt?
2. Does reverse mortgage debt create more or less stress than typical forward mortgage debt?
3. What is the relationship between debt and debt stress, and older adults' decisions regarding early claiming of Social Security Benefits?

Q1: Mortgage Debt & Financial Stress

Data & Methods

- Health and Retirement Study 2004-2014
- Two indicators of debt stress (beginning in 2006)
 - Ongoing financial strain
 - Difficulty paying bills (robustness)
- Panel regressions with random effects

$$S_{it} = \beta_0 + \beta_1 D_{it-1} + \beta_2 H_{it-1} + \beta_3 Y_{it-1} + \beta_4 A_{it-1} + \beta_5 X_{it-1} + \eta_{it}$$

D = non-housing debt balances, lagged

H = housing debt (first and second mortgages), lagged

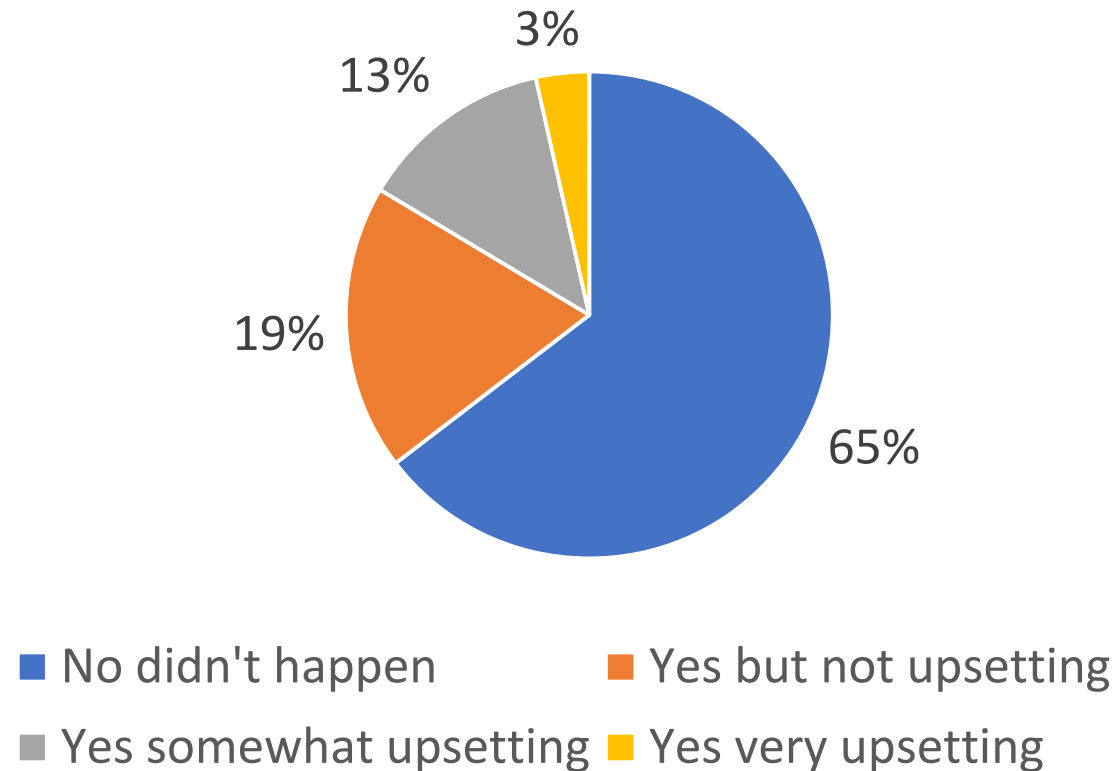
Y = income (earnings, SSI, other), lagged

A = financial assets, lagged

X = household and individual controls

Financial Strain

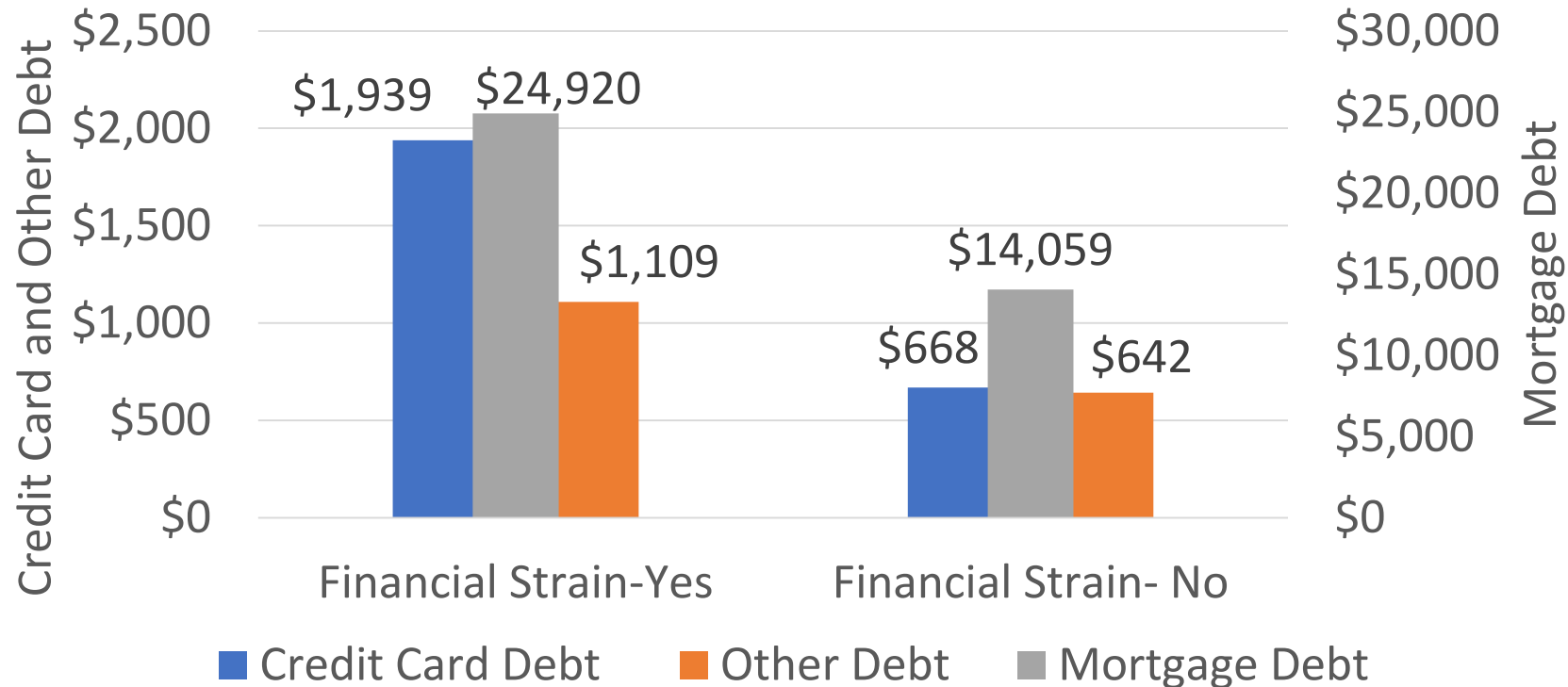
Ongoing Financial Strain,
Adults Age 62+, 2006-2014



Source: Author's calculations from the 2004-2014 waves of the HRS. N = 8,895

Financial Strain & Debt

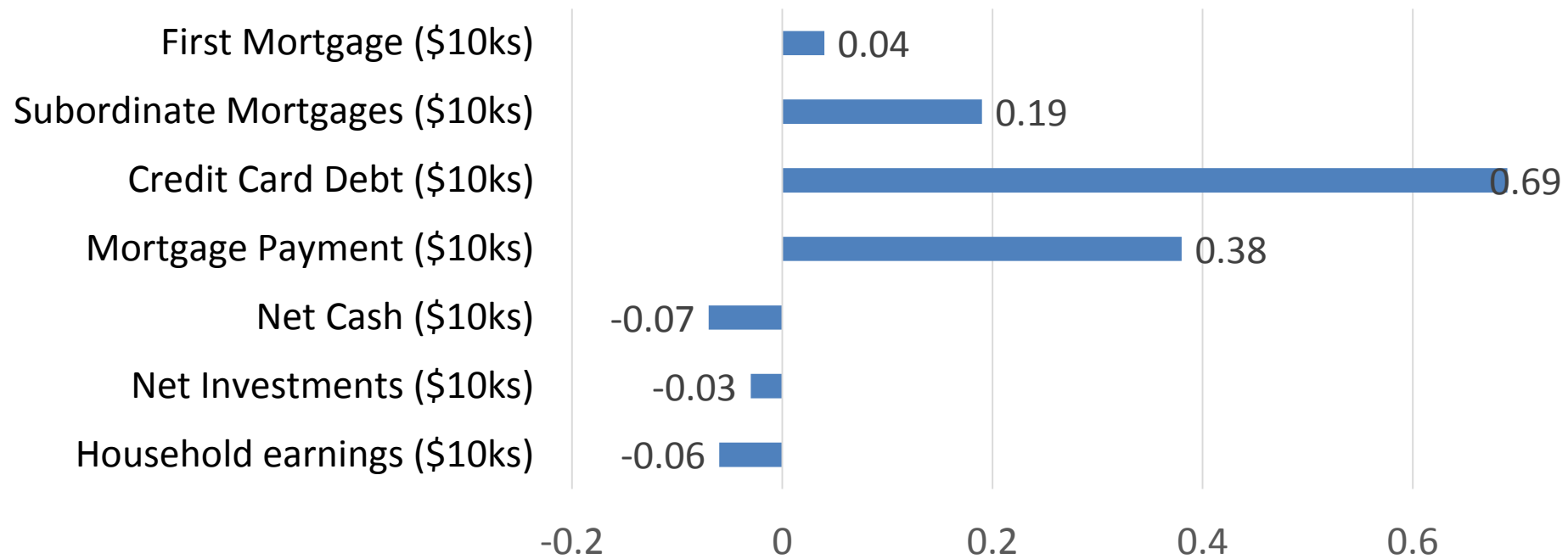
Average Debt Amounts by Financial Strain,
Adults Age 62+, 2006-2014



Source: Author's calculations from the 2004-2014 waves of the HRS. Constant 2016 dollars. N= 8,895

Logit Results: Financial Strain

Predicted Change in the Odds of Experiencing Financial Strain



N=8,895. Logit regression with random effects. Estimates shown statistically significant at $p < .01$.

Q2: Reverse Mortgages & Financial Stress

Data & Methods

- Survey of HECM counselees in 2014-2015 (n=1,088)
 - Debt stress indicator (stress from financial debt, scale of 1 to 5)
- Administrative data at the time of counseling (2010-2011)
 - 70 percent originate a HECM
- Two stage estimation, treating decision to obtain HECM as endogenous choice and indicators of debt as endogenous

$$Y_i = \beta_0 + \beta_1 X_i + V_i \beta + C_i \beta + \varepsilon_i$$

$$X_i = \alpha_0 + Z_i \alpha + V_i \alpha + C_i \alpha + \mu_i$$

Y_i = Debt stress in 2014/15

X_i = HECM choice in 2010/11

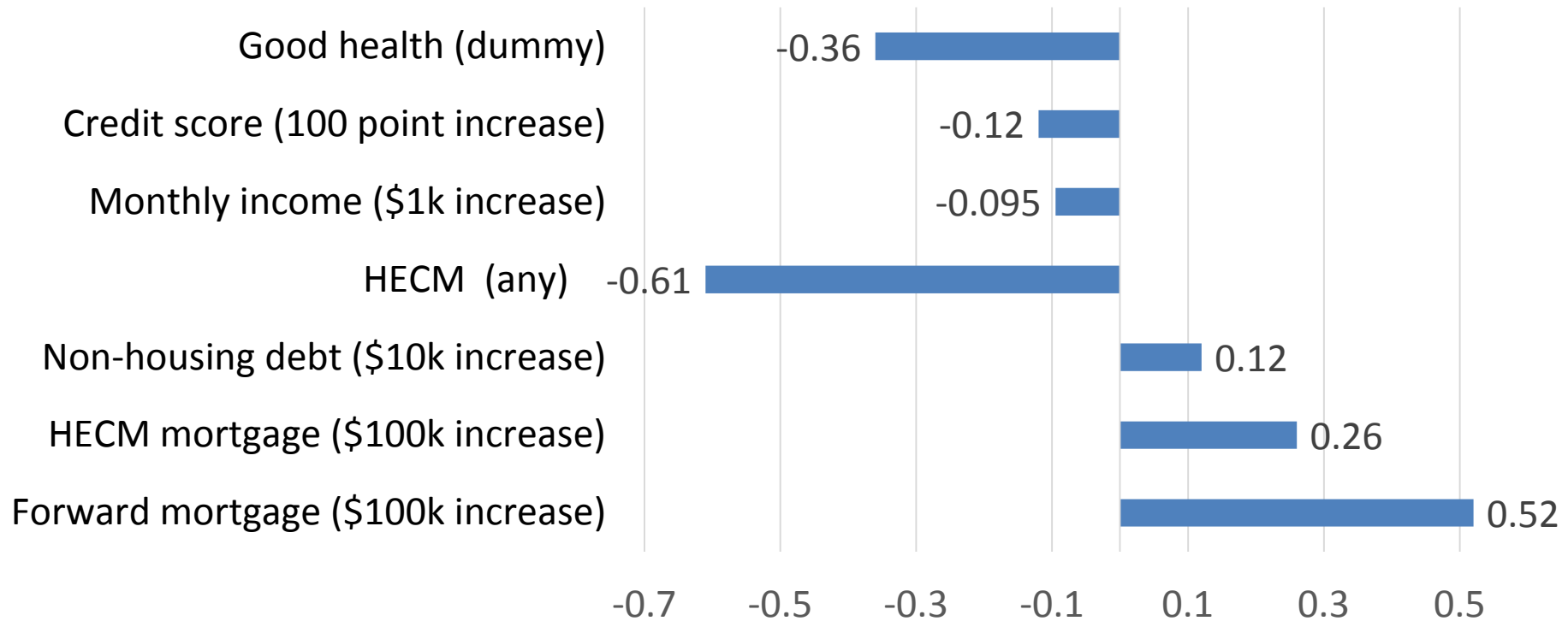
Z_i = Vector of instruments unique to HECM selection

V_i = Vector of endogenous financial variables as of 2014/15 in equation Y_i

C_i = Vector of time invariant control variables

Regression Results: Second Stage

Estimated Change in Debt Stress (Mean = 2.45)



Estimates shown statistically significant at $p < .01$; HECM and financial variables treated as endogenous. First stage, statistically significant predictors of HECM (of those counseled) include mortgage debt (-), home value (+), and Hispanic (+).

Interpretation

Consider an older adult in 2010 who owns a \$200,000 home, has \$100,000 in forward mortgage debt and \$10,000 in non-housing debt.

If the adult originates a HECM, she pays off her mortgage and consumer debt and pays \$6,000 in fees and closing costs (\$116,000). The balance on the HECM grows at 7% annually, for \$152,000 by 2014.

	Does not take HECM	Originates HECM
Forward Mortgage	0.52*\$1	0
Consumer Debt	1.19*\$.1	0
HECM Treatment	0	-0.61
+ HECM Debt	0	0.26*1.52
Debt Stress 2014	0.64	-0.21

By 2021 (11 years post origination), the increase in stress from growing HECM debt could fully offset the HECM treatment effect, assuming coefficients are the same over time.

Q3: Debt Stress and Social Security Claiming

Data & Methods

- Health and Retirement Study 2004-2014
 - Outcome: claim social security retirement income at age 62
 - Limit sample to year a respondent turned 62 (2008-2014 survey waves)
- Two indicators of debt stress (beginning in 2008)
 - Ongoing financial strain
 - Difficulty paying bills (robustness)
- Probit regressions

$$C_{it} = \beta_0 + \beta_1 S_{it-1} + \beta_2 Y_{it-1} + \beta_3 A_{it-1} + \beta_4 D_{it-1} + \beta_5 H_{it-1} + \beta_6 X_{it-1} + \eta_{it}$$

C = whether individual i claimed Social Security retirement income at age 62

S = financial strain (or difficulty paying bills), lagged

Y = income (earnings, SSI, other), lagged

A = financial assets, lagged

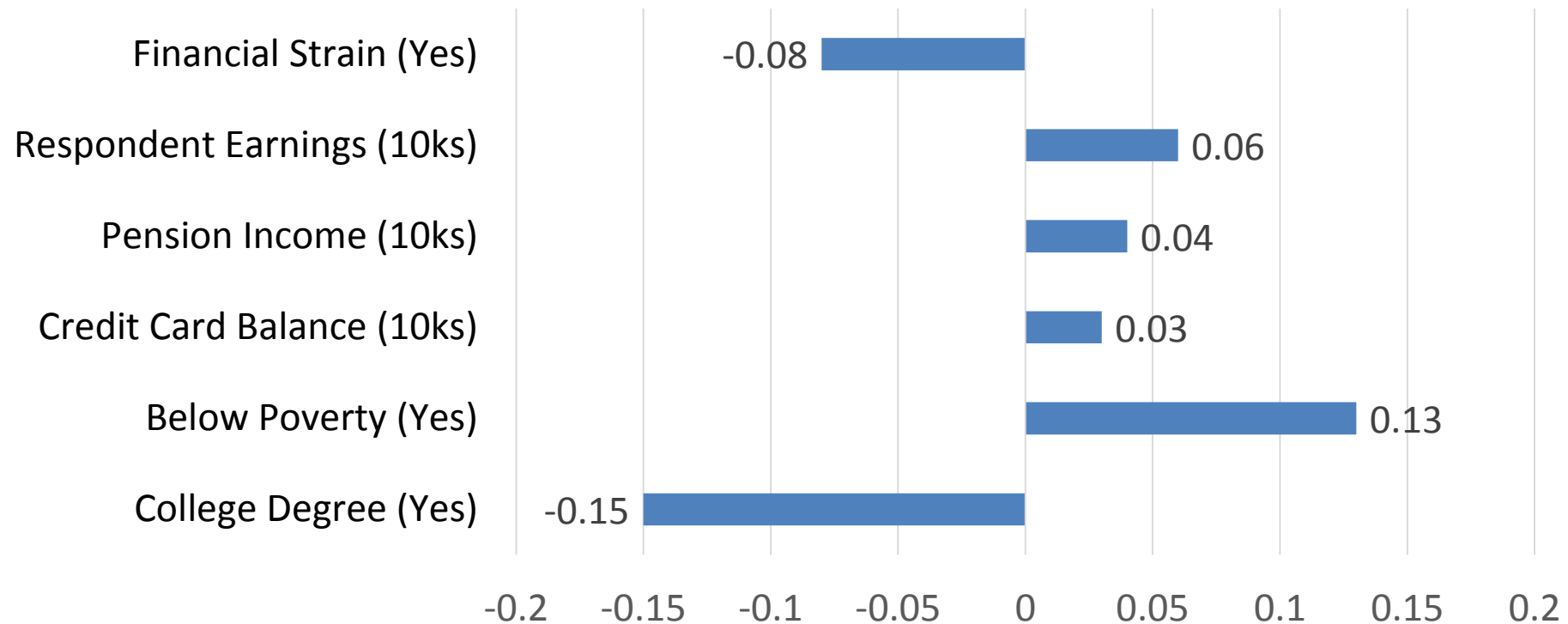
D = non-housing debts, lagged

H = house value, mortgage debt, monthly housing costs, lagged

X = household and individual controls

Probit Results: Claim Social Security at 62

Marginal Effects, Predicted Change in Probability



N=621. Probit regression with random effects. Estimates shown statistically significant at $p < .10$.

Discussion

- Mortgage debt < stress than other non-collateralized debt
- HECM debt < stress than forward mortgage debt
 - Some evidence of debt illusion
 - However, HECM debt grows over time and thus stress grows over time, while forward mortgage debt declines over time (lowering debt stress)
- Debt stress is associated with lower probability of early Social Security claiming at age 62
 - However, credit card debt marginally increases early claiming
- Effects of HECMs on stress and early SS claiming depend in part on how HECM proceeds are used
 - Paying down consumer debt with HECM = less stress
 - Paying off mortgage debt and other consumer debt are two of the top three primary reasons that older adults seek HECMs
 - 39% seek HECMs to payoff mortgage debt
 - 26% seek HECMs to payoff other consumer debt
 - 14% seek HECMs for health or disability expenses
 - Only 6% seek HECMs for a big purchase

Thank you!