

# Mortgage Debt, Financial Well-Being, and Financial Skills Among Older Homeowners

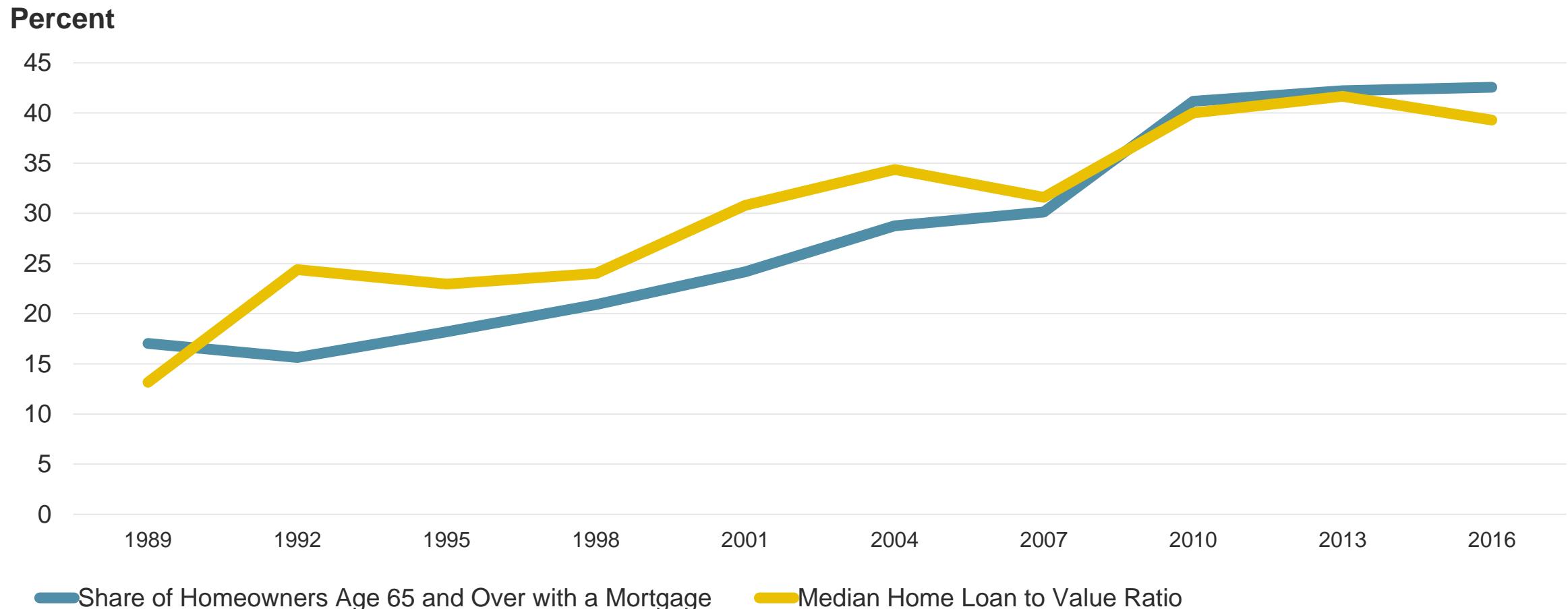
November 13, 2019

Christopher Herbert, Alexander Hermann, and Jennifer Hrabchak Molinsky

A photograph of a residential street featuring several modern, single-story houses. The houses have light-colored horizontal siding, dark roofs, and white trim around their windows and doors. They are built close together, creating a sense of a tight-knit neighborhood. The sky above is a clear, pale blue.

# Background, Research Questions, and Data

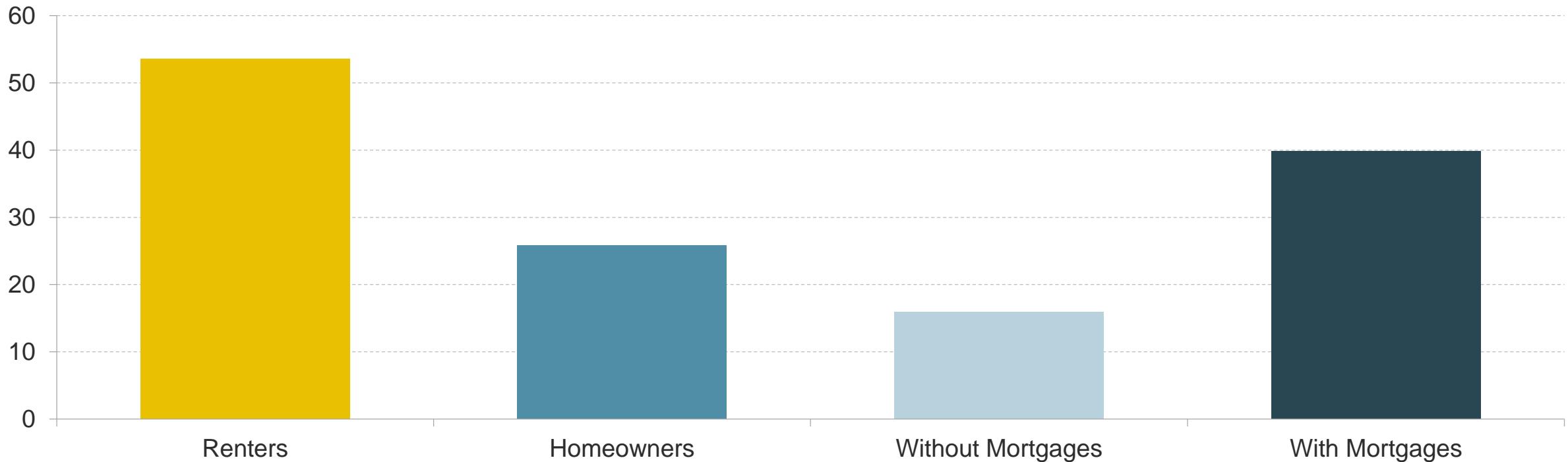
# Older-Adult Homeowners Have Become More Likely to Carry Mortgage Debt Over Time, and Carry More Debt As a Share of Home Value



Note: The loan to value ratio is calculated for homeowners age 65 and over with mortgage debt, including home equity loans and HELOCs secured by a primary residence.  
Source: JCHS tabulations of Federal Reserve Board, Surveys of Consumer Finance.

# Older-Adult Homeowners Had Relatively Low Cost-Burden Rates in 2017, But that Masked Considerable Variation Among Owners with and without a Mortgage

**Share of Households Age 62 and Over with Cost Burdens (Percent)**



Notes: Housing cost burdens are defined as housing costs of more than 30% of household income. Households with zero or negative income are assumed to be severely burdened, while renters paying no cash rent are assumed to be unburdened.

Source: JCHS tabulations of US Census Bureau, American Community Survey 2017 1-Year Estimate.

# Is Rising Mortgage Debt a Problem for Older Adults?

- Beyond housing affordability, carrying mortgage debt into old age has implications for:
  - Ability to tap home equity
  - Physical and mental health
  - Ability to withstand financial shocks from unexpected expenses or loss of income
- However, high levels of mortgage debt might represent a perfectly rational choice
  - Balanced financial portfolio
  - Smoothing mortgage payments and consumption over time

# Research Questions

1. How do high levels of mortgage debt relate to a household's financial well-being among older homeowners?
2. Is housing affordability associated with the financial well-being of older-adult homeowners?
3. To what extent does the incidence of high levels of mortgage debt and the resulting affordability challenges result in financial insecurity for older adult homeowners?
4. Do homeowners with high amounts of mortgage debt exhibit lower levels of financial knowledge, skill, or planning relative to homeowners with low levels of mortgage debt?

# Data

- CFPB's National Financial Well-Being Survey conducted in 2016
- Unit of analysis: older-adult homeowners age 62 and over
  - 6,394 adults overall
  - 2,253 older adults
  - 1,909 older adult homeowners
  - 1,035 older adults in final sample due to non-response
- Descriptive statistics and multivariate regression analyses

# Variables of Interest

Variable in Study	Type	Definition
<b>Financial Well-Being</b>		
Financial Well-Being Scale Score	Continuous	Financial well-being scale score of the respondent, created by CFPB
Financial Insecurity	Dummy	Respondent's financial well-being score is equal to or less than 50
<b>Level of Mortgage Debt</b>		
High Debt	Dummy	Respondent is a homeowner with mortgage debt of \$50,000 or more
<b>Housing Costs and Affordability</b>		
Monthly Housing Costs	Categorical	The amount the respondent paid for housing each month
Cost-to-Income Ratio	Continuous	Respondent's ratio of housing costs (annualized) to household income. The measure takes the implied midpoint of a respondent's monthly housing costs (houseranges) and the midpoint of its household income (ppincimp) and expresses that as a ratio capped at 100
Housing Cost Burden (30 Percent)	Dummy	The above cost-to-income ratio recategorized to indicate housing cost burdens if the respondent spends 30 percent or more of its income on housing
Housing Cost Burden (25 Percent)	Dummy	The above cost-to-income ratio recategorized to indicate housing cost burdens if the respondent spends 25 percent or more of its income on housing
<b>Financial Skill, Knowledge, Planning, and Savings Habits</b>		
Financial Skill Scale Score	Continuous	Financial skill scale score of the respondent, created by CFPB
High Financial Knowledge	Dummy	Respondent assessed financial knowledge as high (6 or 7) on a 7-point scale
Lusardi-Mitchell Financial Knowledge Score	Dummy	Respondent correctly answered all 3 questions on the Lusardi-Mitchell Financial Knowledge scale
Saving Habit	Dummy	Respondent agrees or disagrees with the statement that putting money into savings is a habit
5-Year Financial Planning Horizon	Dummy	Respondent claims their financial planning time horizon is the next 5 to 10 years or longer

# Findings

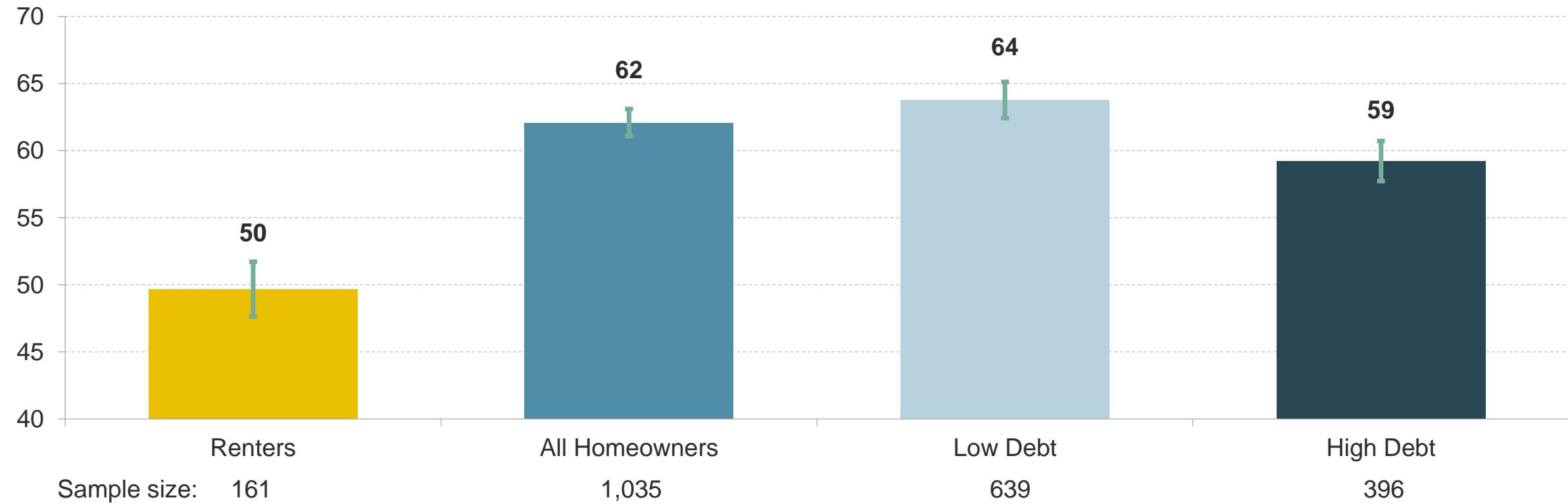


# Key Findings

- 1. Older adults with high levels of mortgage debt have lower levels of financial well-being**
2. The association between mortgage debt and financial well-being is about more than just housing costs
3. Improving financial skill and instilling saving as a habit might make older adults less likely to carry high levels of mortgage debt

# On Average, Older Adults with Low Levels of Mortgage Debt Have Higher Financial Well-Being than those with High Debt

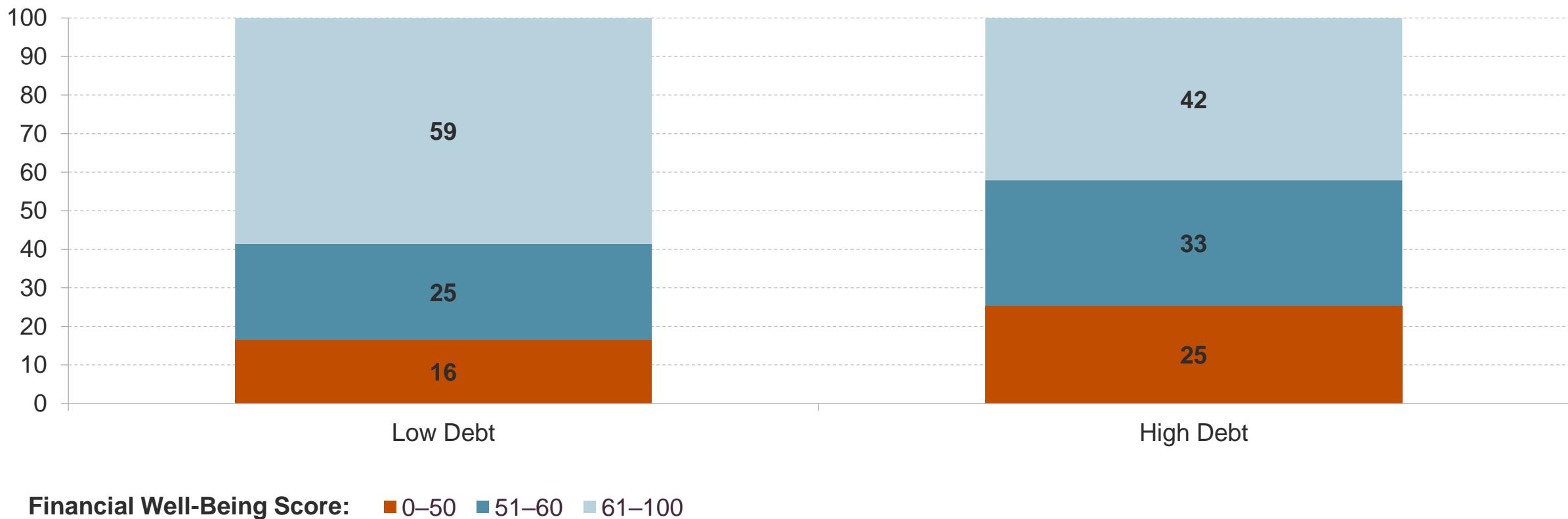
Mean Financial Well-Being Scale Score, Adults Age 62 and Over



Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey..

# Homeowners with Higher Debt Are also More Likely to Be Financially Insecure, Having Scored 50 or Lower on the Test of Well-Being

Share of Respondents (Percent)



Financial Well-Being Score: ■ 0–50 ■ 51–60 ■ 61–100

Notes: We use a financial well-being score of 50 as a threshold for determining whether an individual is financially insecure. Individuals with financial well-being scores at or below 50 are much more likely to experience material hardship, including (1) running out of food (or being afraid of running out of food), (2) being unable to afford a place to live or medical treatment, or (3) having utilities shut off.

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# Perhaps this Is Unsurprising?

- Homeowners with high levels of mortgage debt have
  - Much higher housing costs, and
  - Lower levels of savings
- But they also have
  - Higher incomes, and
  - More expensive homes

# Even After Controlling for Income, Savings, and More, the Relationship Between High Levels of Mortgage Debt and Well-Being Holds

Dependent Variable: Financial Well-Being Scale Score (OLS)		
Independent Variables	Coefficient	Significance
Mortgage Debt \$50,000 and Over	-4.6	**
Household Income	+	**
Savings	+	**
Home Value	+	**
Region	+/-	
In Labor Force	-	**
Bachelor's Degree	+	
Minority	+	
Female	-	
MSA Status	+	
Married	+	
Support Own Children	-	**
In Good Health	+	**

Notes: The sample is for homeowners age 62 and over. The omitted group for the primary independent variable of interest is homeowners with under \$50,000 in mortgage debt.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# A High Incidence of Mortgage Debt Is Also Associated with a Greater Likelihood of Being Financially Insecure

Dependent Variable: Indicator of Financial Insecurity (Probit)

Independent Variables	Coefficient	Significance
Mortgage Debt \$50,000 and Over	0.5	**
Household Income	–	**
Savings	–	**
Home Value	–	*
Region	+/-	
In Labor Force	+	*
Bachelor's Degree	–	
Minority	+	
Female	+	
MSA Status	+	
Married	+	
Support Own Children	+	*
In Good Health	–	**

Notes: The sample is for homeowners age 62 and over. The omitted group for the primary independent variable of interest is homeowners with under \$50,000 in mortgage debt.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

- Having high levels of mortgage debt is associated with a 12 percentage point increase in the likelihood of being financially insecure

# Key Findings

1. Older adults with high levels of mortgage debt have lower levels of financial well-being
2. **The association between mortgage debt and financial well-being is about more than just housing costs**
3. Improving financial skill and instilling saving as a habit might make older adults less likely to carry high levels of mortgage debt

# Even After Controlling for Income, Savings, and More, the Relationship Between High Levels of Mortgage Debt and Well-Being Holds

Dependent Variable: Financial Well-Being Scale Score				
Independent Variables	Model 1	Model 2	Model 3	Model 4
Mortgage Debt \$50,000 and Over	-2.3*	-3.7**	-4.3**	-4.2**
<b>Monthly Housing Costs</b>				
\$500–1,000	<b>-3.1**</b>			
\$1,000–1,500	<b>-3.3*</b>			
\$1,500 and Over	<b>-4.3**</b>			
<b>Cost-to-Income Ratio</b>		<b>-0.1**</b>		
<b>Cost Burden Dummy (30 Percent)</b>			<b>-2.4</b>	
<b>Cost-Burden Dummy (25 Percent)</b>				<b>-1.8</b>
All Additional Controls	Yes	Yes	Yes	Yes

Notes: The sample is for homeowners age 62 and over. The omitted group for the primary independent variable of interest is homeowners with under \$50,000 in mortgage debt. All statistics are coefficients

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

## ... But It's Not the Whole Story

Dependent Variable: Financial Well-Being Scale Score				
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Mortgage Debt \$50,000 and Over	-2.3*	-3.7**	-4.3**	-4.2**
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Cost-to-Income Ratio		-0.1**		
Cost Burden Dummy (30 Percent)			-2.4	
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Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# Key Findings

1. Older adults with high levels of mortgage debt have lower levels of financial well-being
2. The association between mortgage debt and financial well-being is about more than just housing costs
3. **Improving financial skill and instilling saving as a habit might make older adults less likely to carry high levels of mortgage debt**

# Are Financial Skill, Knowledge, Planning, and Habits Associated with a High Levels of Mortgage Debt?

Dependent Variable: Incidence of High Debt (Probit)				
Model	Independent Variable of Interest	Coefficient	Significance	All Additional Controls
1	Financial Skill Score	-0.01	*	Yes
2	Strong Saving Habits	-0.37	**	Yes
3	Having High or Very High Financial Knowledge (Self-Reported)	0.09		Yes
4	Lusardi-Mitchell Score of Financial Knowledge	0.01		Yes
5	Financial Planning Horizon of 5 years or Longer	-0.14		Yes

Note: The dependent variable in all models is a dummy indicator where 1 indicates the respondent had higher levels of mortgage debt (at least \$50,000). The subsample is homeowners age 62 and over.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# Financial Skill and Habitual Saving Decrease the Likelihood an Older Adult Homeowners Has High Levels of Debt

- For older adult homeowners in our subsample, holding all other variables constant at the mean...
  - A 6-point increase in **financial skill** is associated with a **5 percentage point decrease** in the likelihood of having high levels of mortgage debt
  - **Strong savings habits** are associated with a **14 percentage point decrease** in the likelihood of having high levels of mortgage debt

# Implications



# Takeaways

- There's a strong link between the incidence of high mortgage debt and lower financial well-being
- Some, but not all, of this relationship is explained by the corresponding increase in housing costs associated with mortgage debt
- Financial education geared towards encouraging savings and improving financial skill might mitigate the increase in high levels of mortgage debt for older adults.

# Questions for Future Research

- What's the right timing and structure of these financial education programs?
- Does the mere incidence of mortgage debt matter more so than the level of mortgage debt?
- Does the relationship between mortgage debt and financial well-being vary with age? If so, at what age (and what amount) is mortgage debt most associated with lower levels of financial well-being?
- By what mechanism(s) does the incidence of high mortgage debt, independent of affordability, most effect well-being?

A photograph of a residential street featuring several modern, single-story houses. The houses have light-colored vertical siding, dark grey or black roofs, and white trim around windows and doors. Some have brick bases or pillars. The houses are set back from a paved street, with manicured lawns and flower beds in the foreground. The sky is a clear, pale blue.

Thanks!

A photograph of a residential street featuring several modern, single-story houses. The houses have light-colored horizontal siding, dark grey or black roofs, and white trim around windows and doors. Some have brick bases or pillars. The houses are set back from a paved street, with manicured lawns and flower beds in the foreground. The sky is a clear, pale blue.

Extra Slides (For possible reference)

# Even After Controlling for Income, Savings, and More, the Relationship Between High Levels of Mortgage Debt and Well-Being Holds

## Dependent Variable: Financial Well-Being Scale Score

	Model 1		Model 2		Model 3		Model 4	
Variable	Coef.	Std. Err.						
<b>Mortgage Debt \$50,000 and Over</b>	<b>-4.54**</b>	<b>(1.03)</b>	<b>-6.37**</b>	<b>(0.83)</b>	<b>-4.53**</b>	<b>(0.82)</b>	<b>-4.58**</b>	<b>(0.80)</b>
<b>Household Income</b>								
\$30,000–59,999			9.57**	(1.52)	6.02**	(1.39)	5.50**	(1.36)
\$60,000–99,999			14.93**	(1.43)	8.75**	(1.41)	8.04**	(1.44)
\$100,000 and Over			20.22**	(1.43)	11.78**	(1.48)	11.43**	(1.57)
<b>Savings</b>								
\$5,000–19,999					5.23**	(1.17)	4.77**	(1.09)
\$20,000 and Over					11.77**	(1.11)	10.27**	(1.08)
<b>Home Value</b>								
\$150,000–249,999					1.03	(1.10)	0.59	(1.09)
\$250,000 and Over					3.42**	(1.04)	3.01**	(1.05)
<b>Additional Controls</b>								
	<b>No</b>		<b>No</b>		<b>No</b>		<b>Yes</b>	
Constant	63.78**	(0.68)	51.77**	(1.27)	47.55**	(1.32)	42.11**	(1.84)
Observations	1,035		1,035		1,035		1,035	
R-squared	0.023		0.257		0.374		0.422	

Notes: The dependent variable in all models is the scale of consumer financial well-being for the subsample of homeowners age 62 and over. The omitted group are homeowners with low levels of debt (below \$50,000). Additional dummy variables included in Model 4 include (plus the directionality and significance of the relationship where appropriate): the region the respondent lives in, whether or not the respondent is in the labor force\*\* (negative), has a bachelor's degree, is a minority, female, their MSA status, marital status, supports their children financially\*\* (negative), and is in good health\*\* (positive).

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

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Joint Center for Housing Studies of Harvard University



# A High Incidence of Mortgage Debt Is Also Associated with a Greater Likelihood of Being Financially Insecure

Dependent Variable: Dummy Indicator of Financial Insecurity								
	Model 1 (LPM)		Model 2 (LPM)		Model 3 (Probit)		Model 4 (Probit)	
Variable	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
<b>Mortgage Debt \$50,000 and Over</b>	<b>0.10**</b>	<b>(0.03)</b>	<b>0.05</b>	<b>(0.04)</b>	<b>0.50**</b>	<b>(0.14)</b>	<b>0.28</b>	<b>(0.17)</b>
<b>Monthly Housing Costs</b>								
\$500–1,000			0.10*	(0.04)			0.43*	(0.18)
\$1,000–1,500			0.06	(0.05)			0.38	(0.22)
\$1,500 and Over			0.03	(0.05)			0.29	(0.26)
Constant	0.72**	(0.07)	0.69**	(0.07)	0.70*	(0.27)	0.58*	(0.27)
Observations	1,035		1,035		1,035		1,035	
R-squared	0.312		0.319					
Pseudo R-Squared					0.294		0.300	

Notes: The dependent variable in all models is a dummy variable where 1 indicates financial insecurity (a score of 0 to 50 on the test of financial well-being). Model 1 and Model 2 are Linear Probability Models while Models 3 and 4 are probit regressions. Models are run for the subsample of homeowners age 62 and over. The omitted group are homeowners with low levels of debt (below \$50,000). The pseudo r-squared is a McFadden's r-squared, run on separate unweighted estimates, while all other statistics reported are derived from the weighted estimates.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# Increased Housing Costs Are One Pathway By Which Having High Debt Is Associated with Lower Well-Being...

Dependent Variable: Financial Well-Being Scale Score								
Variable	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.						
Mortgage Debt \$50,000 and Over	-2.29*	(1.03)	-3.65**	(0.88)	-4.31**	(0.81)	-4.21**	(0.83)
Monthly Housing Costs								
\$500–1,000	-3.07**	(1.07)						
\$1,000–1,500	-3.30*	(1.33)						
\$1,500 and Over	-4.30**	(1.28)						
Cost-to-Income Ratio			-0.08**	(0.03)				
Cost Burden Dummy (30 Percent)					-2.42	(1.27)		
Cost-Burden Dummy (25 Percent)							-1.84	(1.06)
Demographic Control Variables	Y		Y		Y		Y	
Constant	42.84**	(1.87)	44.40**	(2.01)	42.96**	(1.88)	42.93**	(1.96)
Observations	1,035		1,035		1,035		1,035	
R-squared	0.429		0.427		0.424		0.423	

Note: The dependent variable in all models is the scale of consumer financial well-being for the subsample of householders age 62 and over. The omitted group is homeowners with low levels of mortgage debt (below \$50,000). Demographic control variables included in the model but not shown are those from Table 5, Model 4.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# ... But It's Not the Whole Story

Dependent Variable: Financial Well-Being Scale Score								
Variable	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.						
Mortgage Debt \$50,000 and Over	-2.29*	(1.03)	-3.65**	(0.88)	-4.31**	(0.81)	-4.21**	(0.83)
Monthly Housing Costs								
\$500–1,000	-3.07**	(1.07)						
\$1,000–1,500	-3.30*	(1.33)						
\$1,500 and Over	-4.30**	(1.28)						
Cost-to-Income Ratio			-0.08**	(0.03)				
Cost Burden Dummy (30 Percent)					-2.42	(1.27)		
Cost-Burden Dummy (25 Percent)							-1.84	(1.06)
Demographic Control Variables	Y		Y		Y		Y	
Constant	42.84**	(1.87)	44.40**	(2.01)	42.96**	(1.88)	42.93**	(1.96)
Observations	1,035		1,035		1,035		1,035	
R-squared	0.429		0.427		0.424		0.423	

Note: The dependent variable in all models is the scale of consumer financial well-being for the subsample of householders age 62 and over. The omitted group is homeowners with low levels of mortgage debt (below \$50,000). Demographic control variables included in the model but not shown are those from Table 5, Model 4.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.

# Are Financial Skill, Knowledge, Planning, and Habits Associated with a High Levels of Mortgage Debt?

Dependent Variable: Incidence of High Debt (Probit)										
Variable	Model 1		Model 2		Model 3		Model 4		Model 5	
	Coef.	Std. Err.								
Financial Skill Score	-0.01*	(0.00)								
Having High or Very High Financial Knowledge			0.09	(0.10)						
Lusardi-Mitchell Score of Financial Knowledge					0.01	(0.12)				
Saving Habits							-0.37**	(0.10)		
Financial Planning Horizon of 5 years or Longer									-0.14	(0.09)
Demographic Control Variables	Y		Y		Y		Y		Y	
Constant	-1.14**	(0.29)	-1.52**	(0.24)	-1.53**	(0.24)	-1.53**	(0.26)	-1.49**	(0.24)
Observations	1,019		1,019		1,019		1,019		1,019	
Pseudo R-squared										

Note: The dependent variable in all models is a dummy indicator where 1 indicates the respondents had higher levels of mortgage debt (at least \$50,000). The subsample is homeowners age 62 and over.

\* p < 0.05 \*\* p < 0.01

Source: JCHS tabulations of Consumer Financial Protection Bureau, 2016 National Financial Well-Being Survey.