

Aging, Transportation, and Science Employment

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USC Lusk Annual Retreat 2025

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Strategic things we have discussed

- Retail
- Marriage
- Banking
- And today, Aging

Agenda

- Pace of Aging
- Household balance sheets for
 - 55-65
 - 65-75
 - 75+
- Household incomes at those ages
- Cost of care
- Gaps
- House Prices
- A suggestion
- Employment in California

Warning: Wonky Talk Ahead

GENERATIONS – Journal of the American Society on Aging

Home Equity Extraction— A Long-Term-Care Financing Solution for Older Adults?

By Richard K. Green

Two mortgage products offer older adults possible sources for long-term-care financing.

Large numbers of Americans are approaching their retirement years relatively unprepared for retirement, and many would benefit from being able to tap into equity from their homes for cash. Should policy makers look to proposals that make it easier to use home equity as a source of long-term-care financing that would allow people to remain at home when they need long-term services and supports (LTSS)? Retirees in the United States typically are homeowners: tabulations from the 2016 American Community Survey Public Use Micro Samples (U. S. Census Bureau, 2018) show a homeownership rate of 77 percent for people not in the labor force and who are older than age 65.

Facts About Older Homeowners and Homeownership

But while older homeowners have far more

median net worth of homeowners older than age 65 is \$319,000 (while for renters it is \$7,000), they still have low incomes. The median income for homeowners older than age 65 who are not in the labor force was \$42,800, and for those older than age 75, the median income was \$36,900. This compares with median income for all homeowners of \$72,600 (Ruggles et al., 2018).

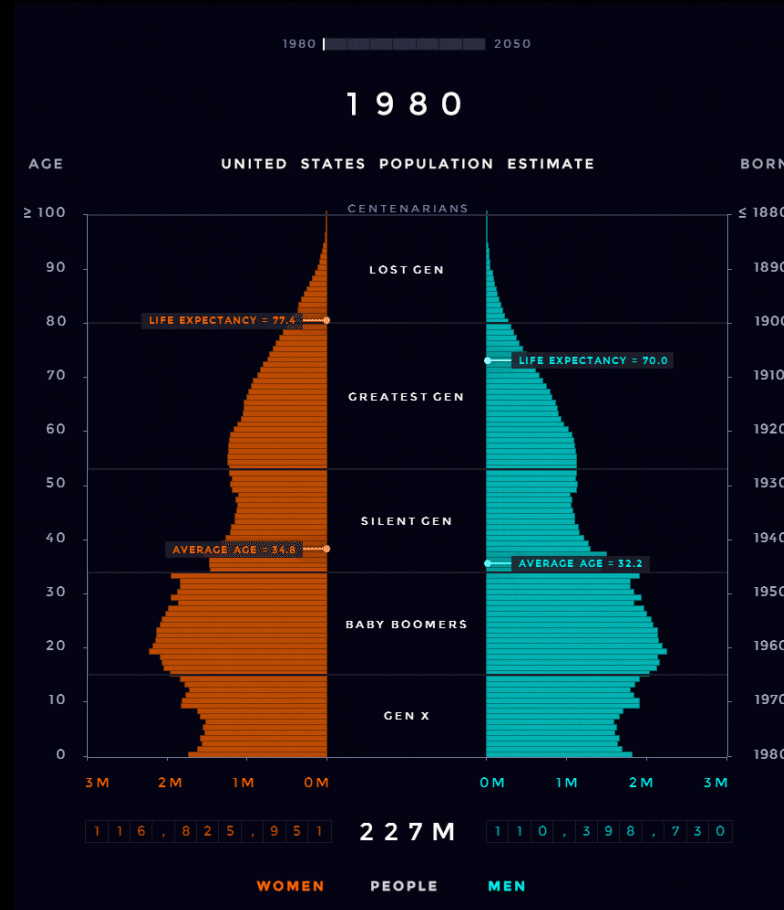
Retired homeowners, however, have a large advantage relative to retired older renters—the cash flow cost of housing tends to be lower. While the median renter retiree pays \$750 per month, or \$9,000 per year, in gross rent, the median owner has paid off her mortgage and pays \$1,950 per year in property taxes, \$800 per year in insurance, and \$5,930 per year in other recurring expenses.

Owning a home, however, involves expenses that can be substantial, such as maintenance

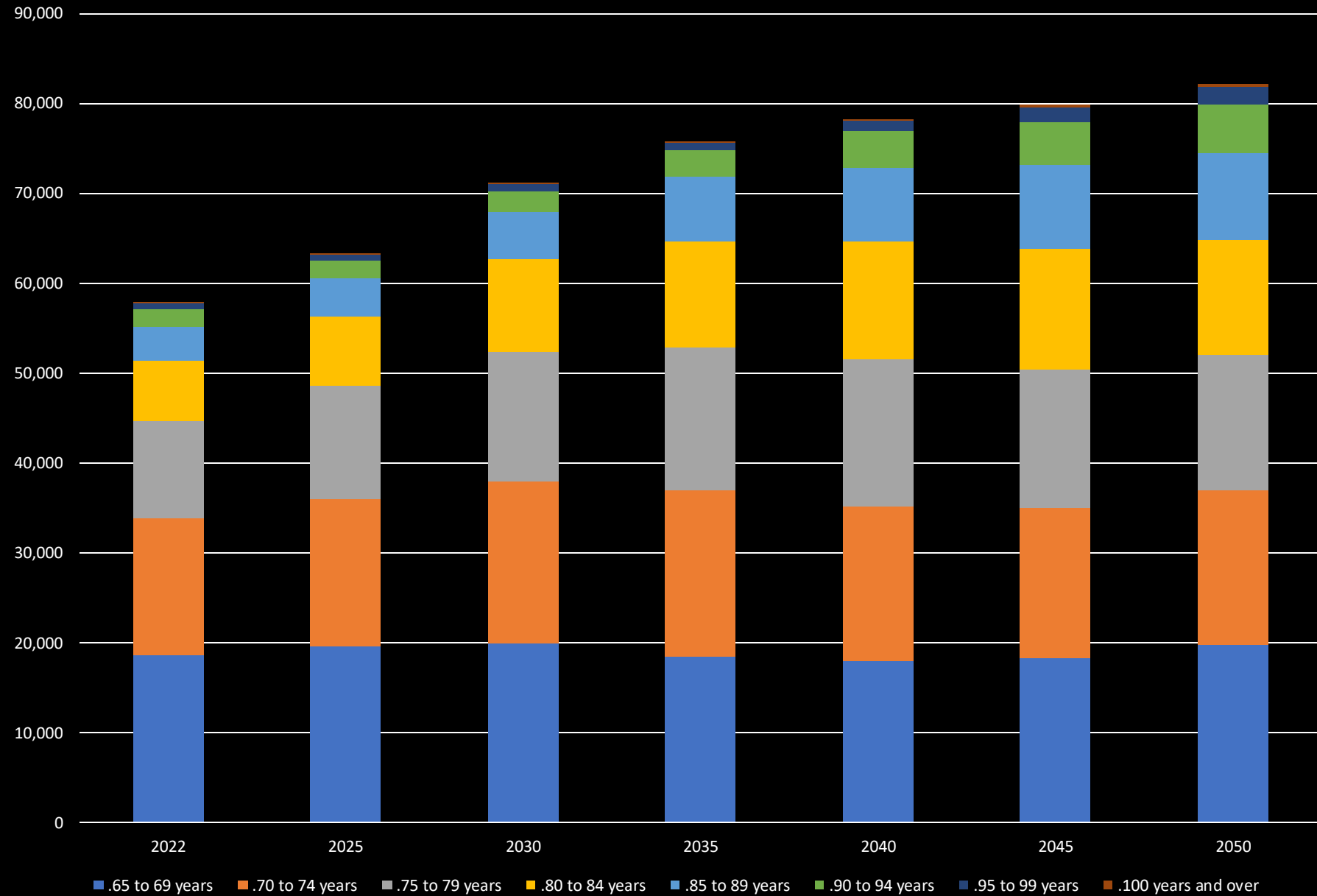
• Better papers on reverse mortgages

- Nakajima, Makoto, and Irina A. Telyukova. "Reverse mortgage loans: A quantitative analysis." *The Journal of Finance* 72.2 (2017): 911-950.
- Moulton, Stephanie, Căzilia Loibl, and Donald Haurin. "Reverse mortgage motivations and outcomes: Insights from survey data." *Cityscape* 19.1 (2017): 73-98.
- Kobayashi, Masahiro, Shoichiro Konishi, and Toshihiko Takeishi. "The reverse mortgage market in Japan and its challenges." *Cityscape* 19.1 (2017): 99-118.
- Many others!

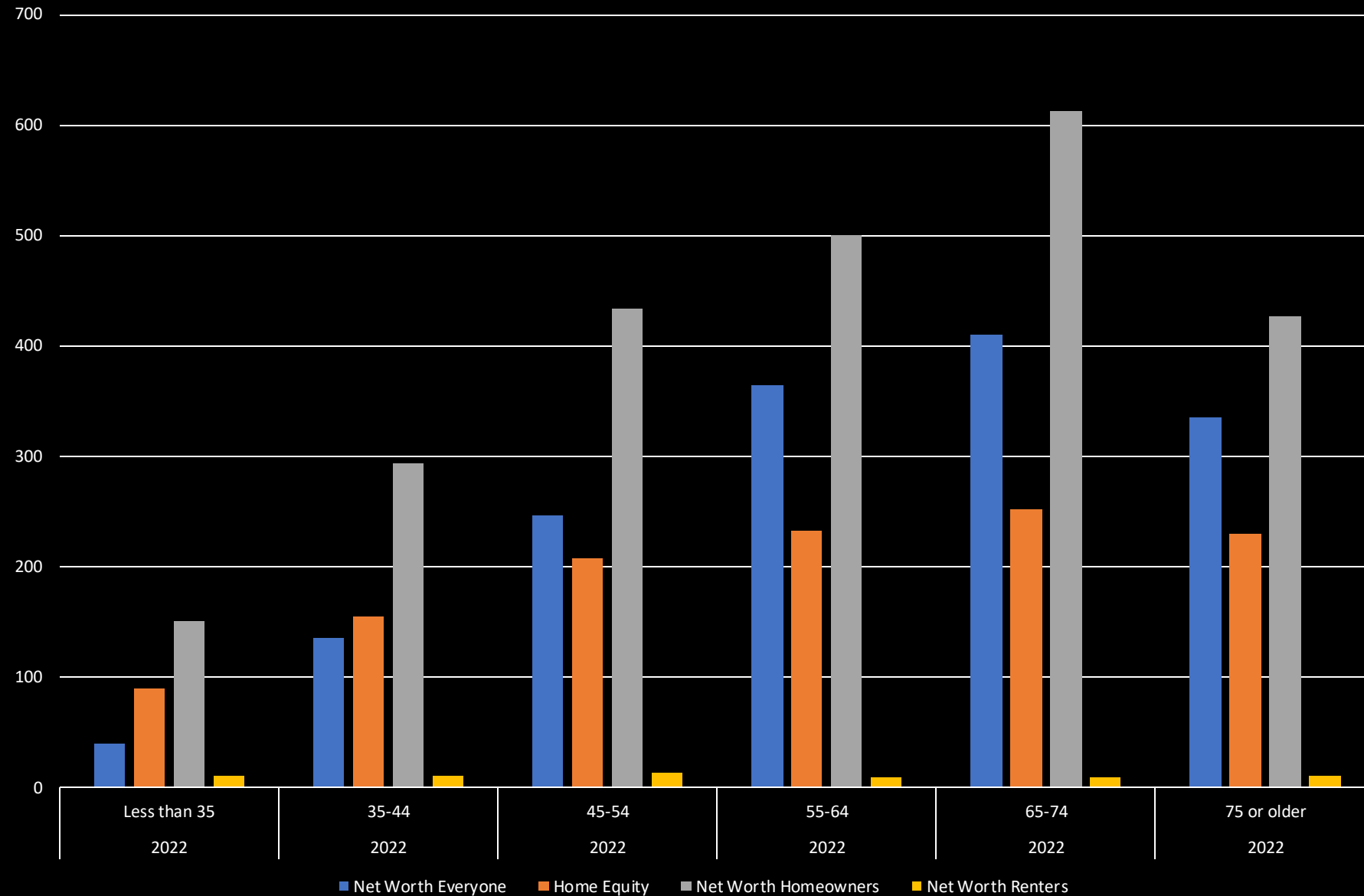
From a Pyramid to a Hut



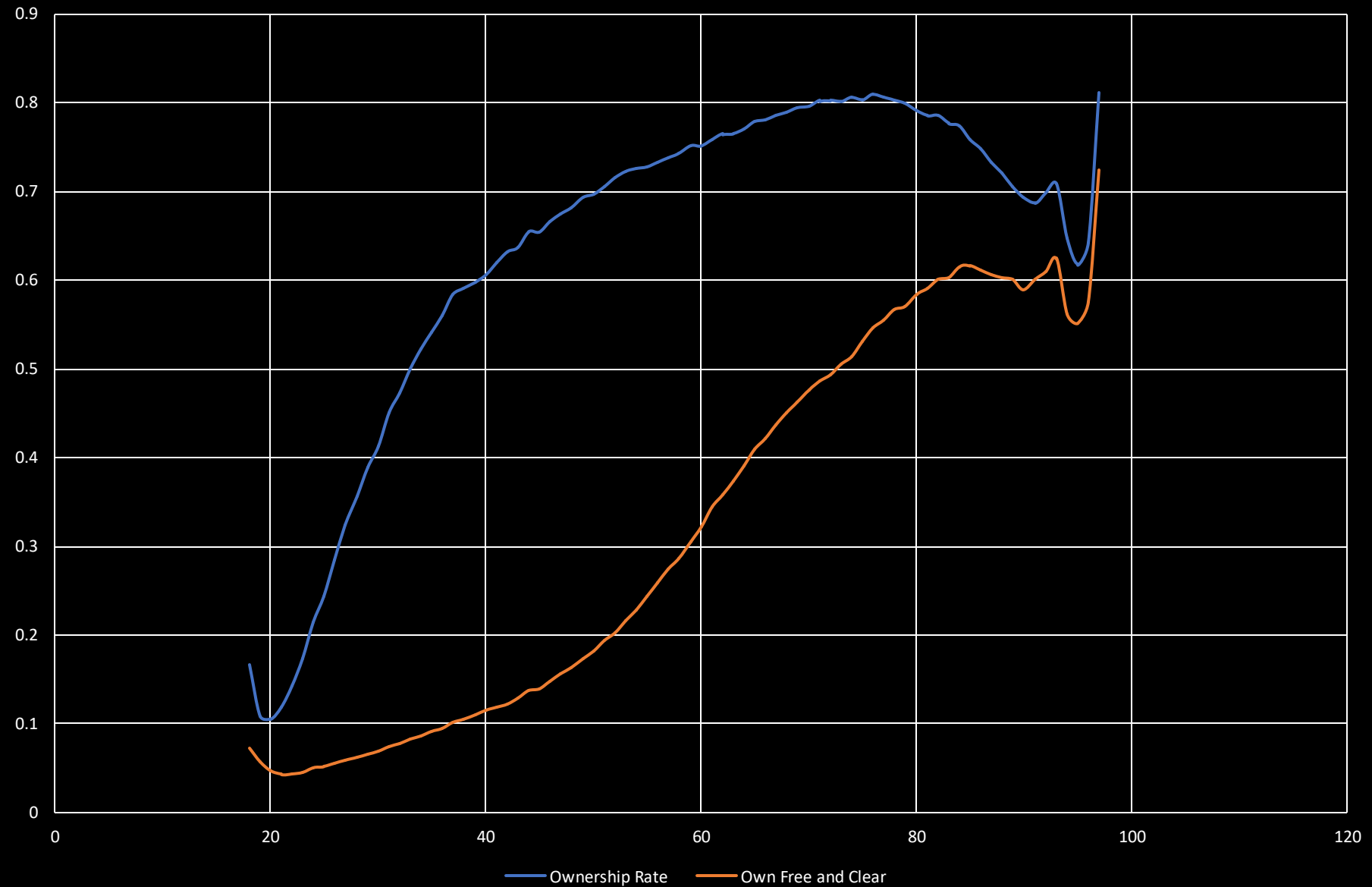
Projected Population by Age, US Census 2022



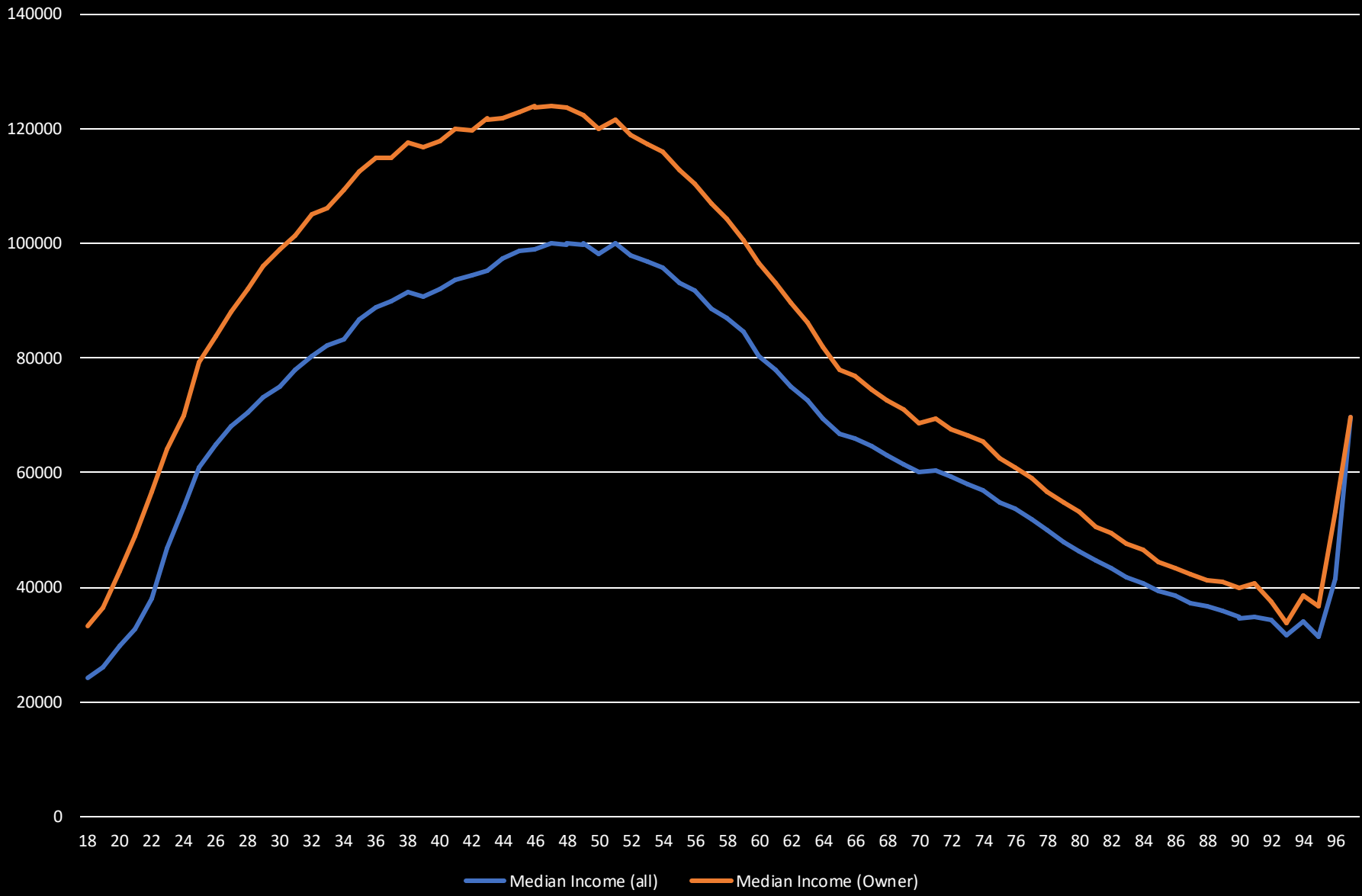
Median Net Worth, Home Equity for Owners, Net Worth for Owners, Net Worth Renters
Survey of Consumer Finances, 2022



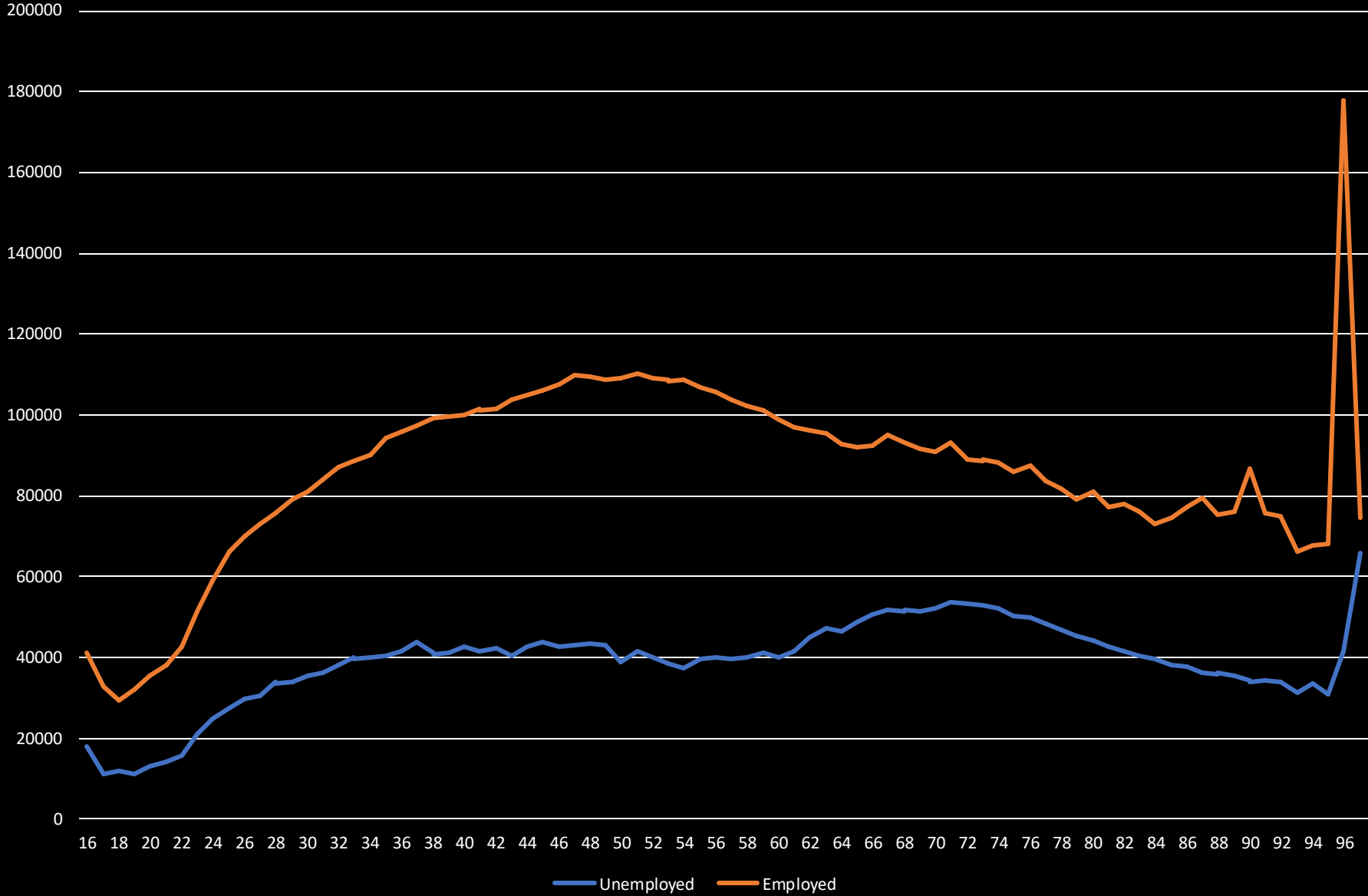
Homeowning and Mortgage Status by Age
ACS 2023 and Author Calculations



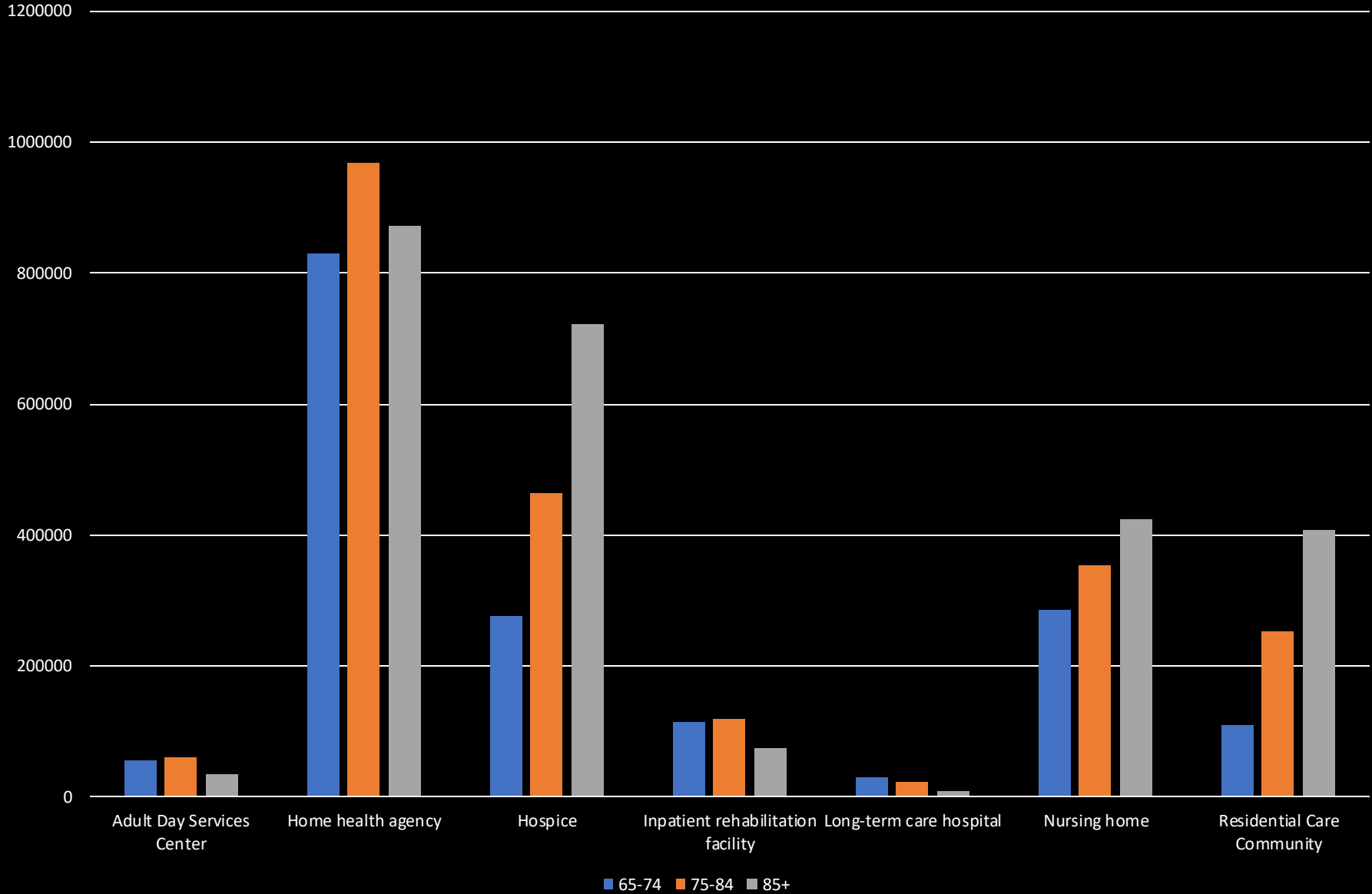
Median Income by Age and Tenure
American Community Survey 2023 and Author Calculations



Median Household Income by Employment Status
2023 ACS and Author Calculations

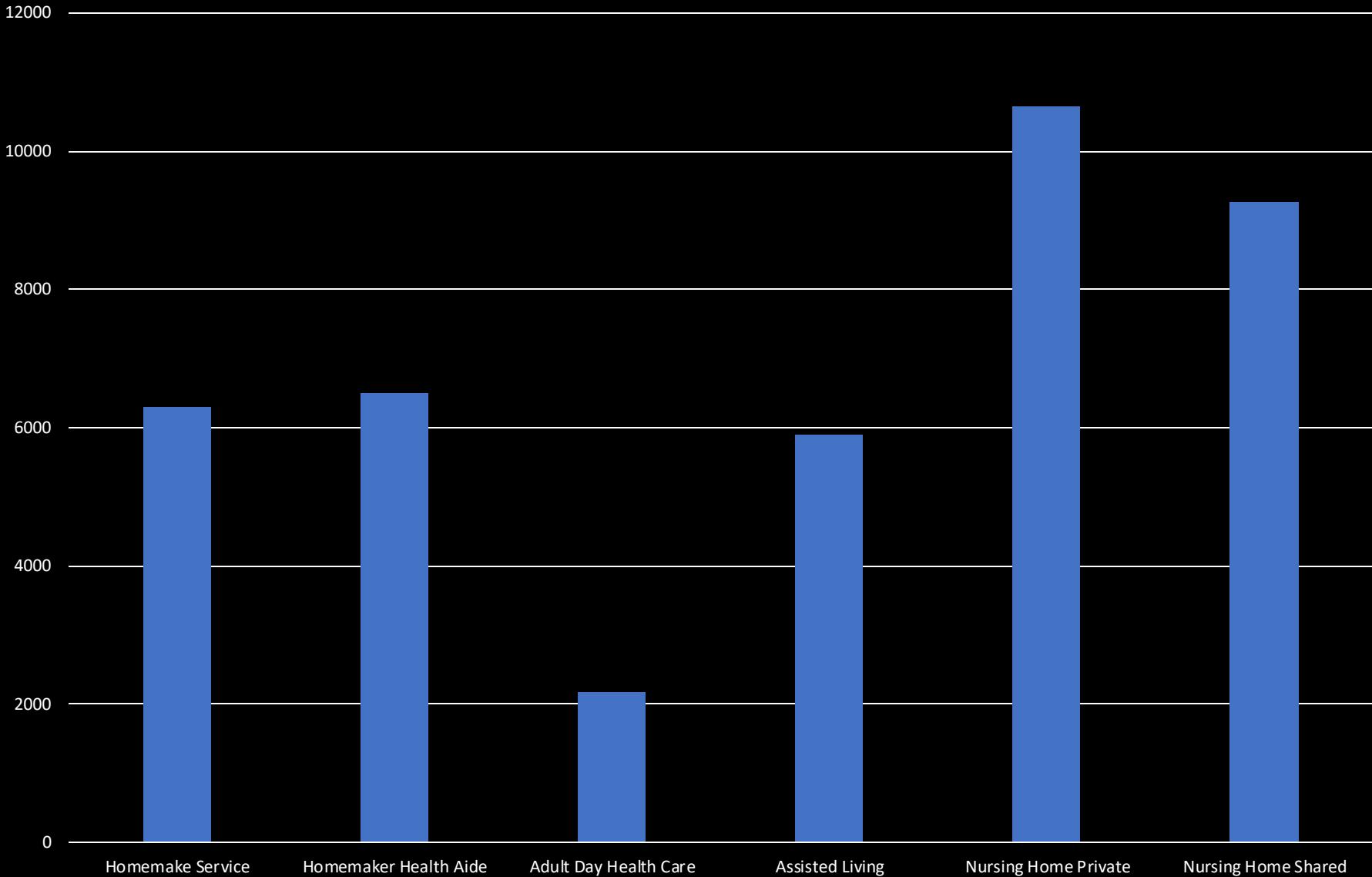


2020 Users of Care for Elders
Source: 2020 CDC



Monthly Cost of Care for Elders 2025

Source: Genworth



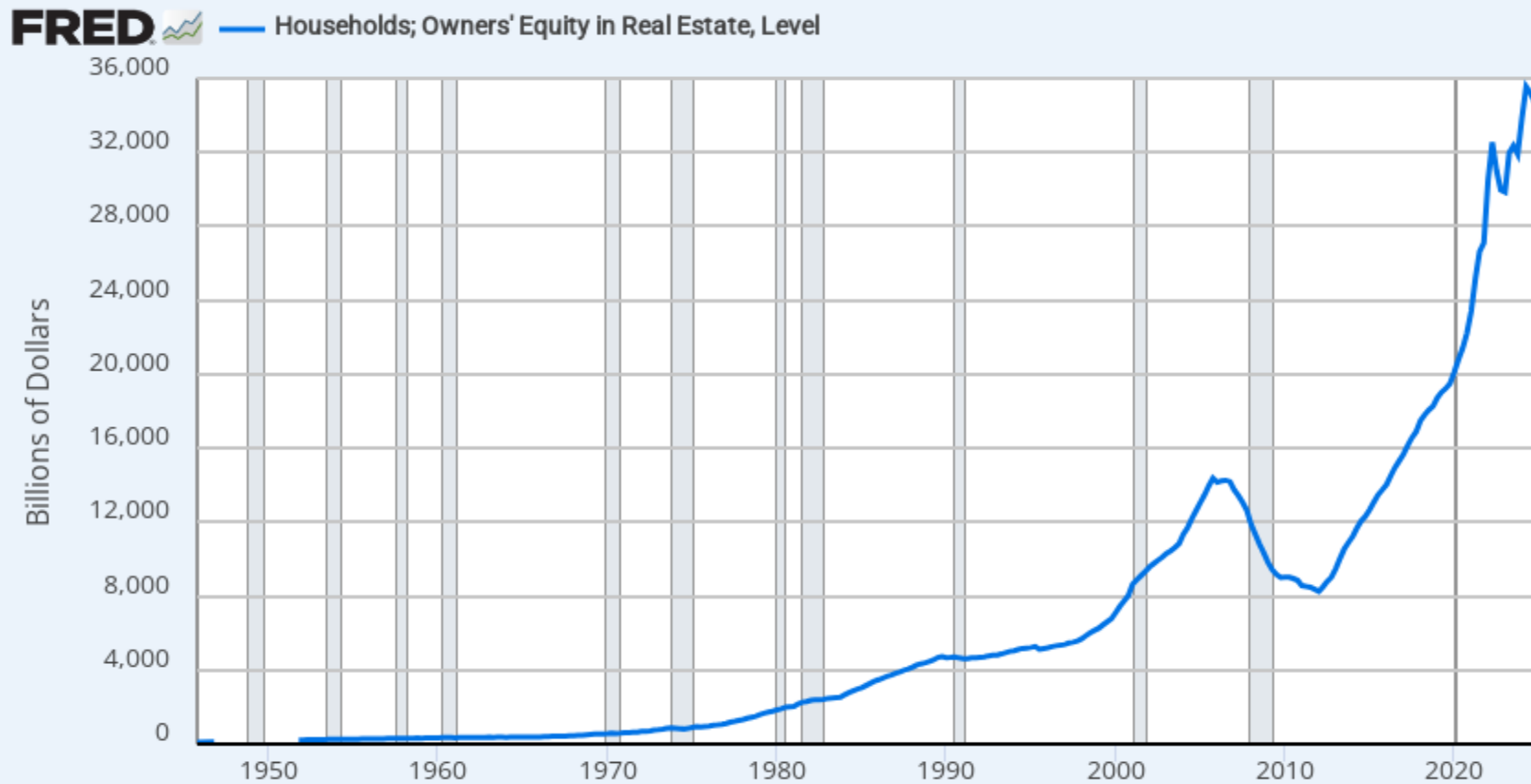
How does aging affect real estate food groups?

- Housing
 - Prices
 - Quality
- Assisted Living
- Retail
- Industrial?
- Office?

Current HECM Market (FHA, Jan 2025)

- Average Rate 6.5 percent
- Nearly 100 percent ARMS
- 82 percent traditional
- 5 percent refi
- 13 percent purchase

Homeowner Equity

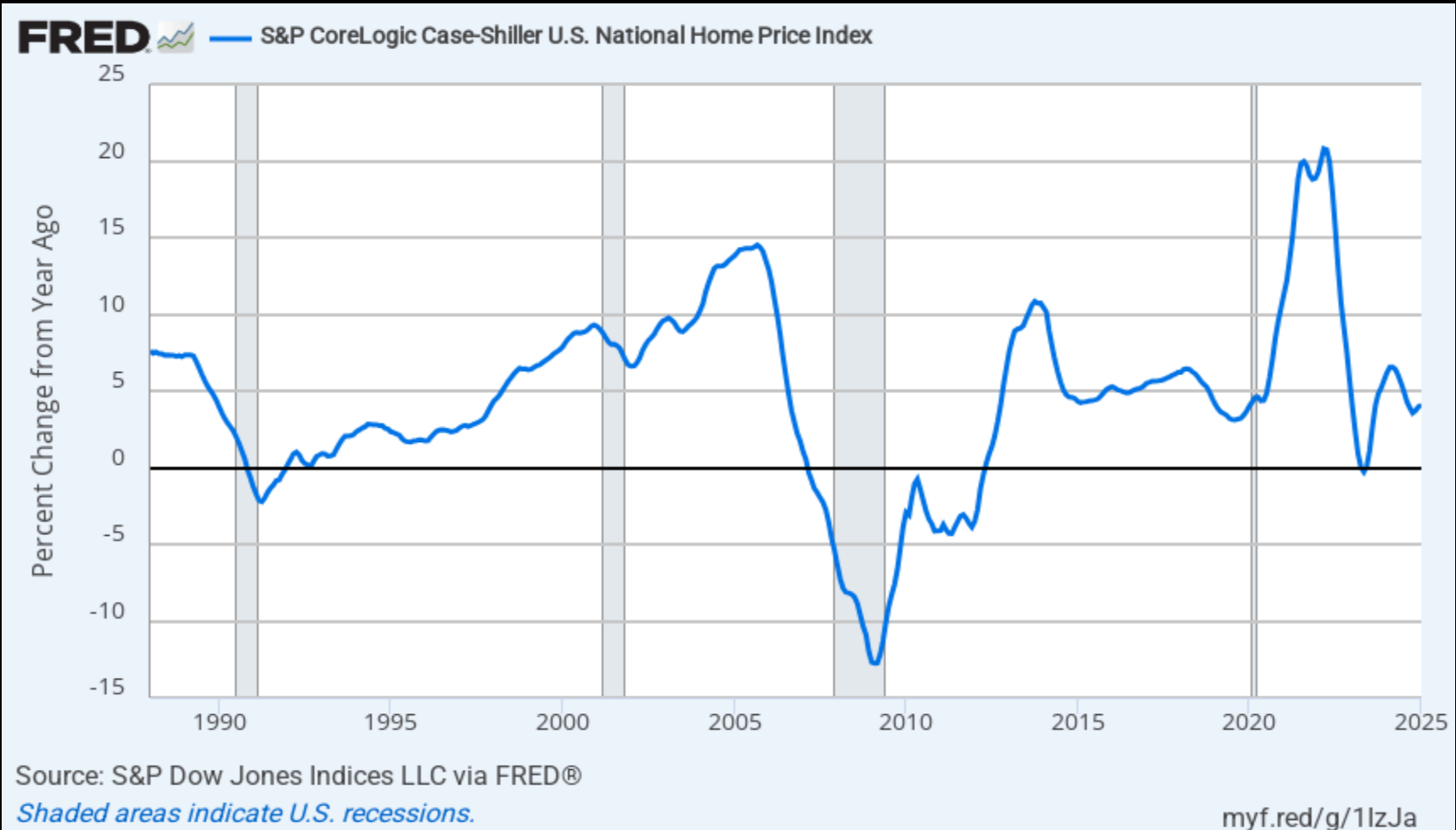


Source: Board of Governors of the Federal Reserve System (US) via FRED®

Shaded areas indicate U.S. recessions.

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House Prices



Three things about house prices

- National Appreciation has averaged 4 percent per year
- Standard Deviation has been 6 percent per year
- There is no national housing market

FRED



— Market Yield on U.S. Treasury Securities at 1-Year Constant Maturity, Quoted on an Investment Basis



Source: Board of Governors of the Federal Reserve System (US) via FRED®

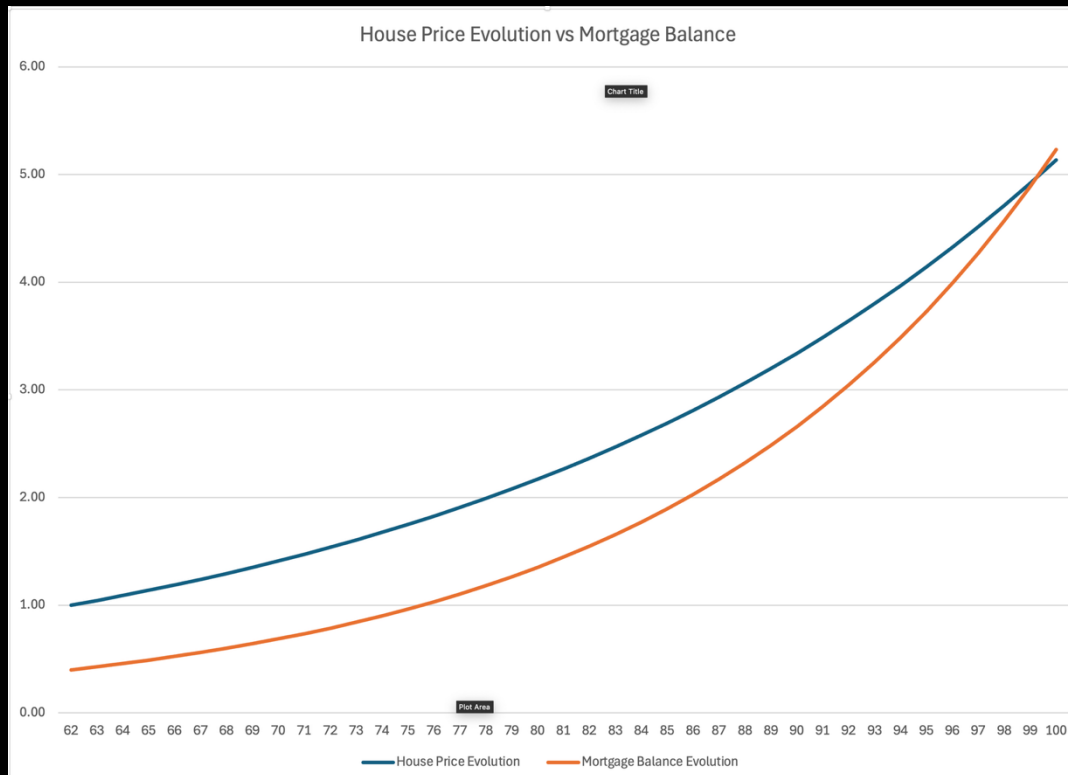
Shaded areas indicate U.S. recessions.

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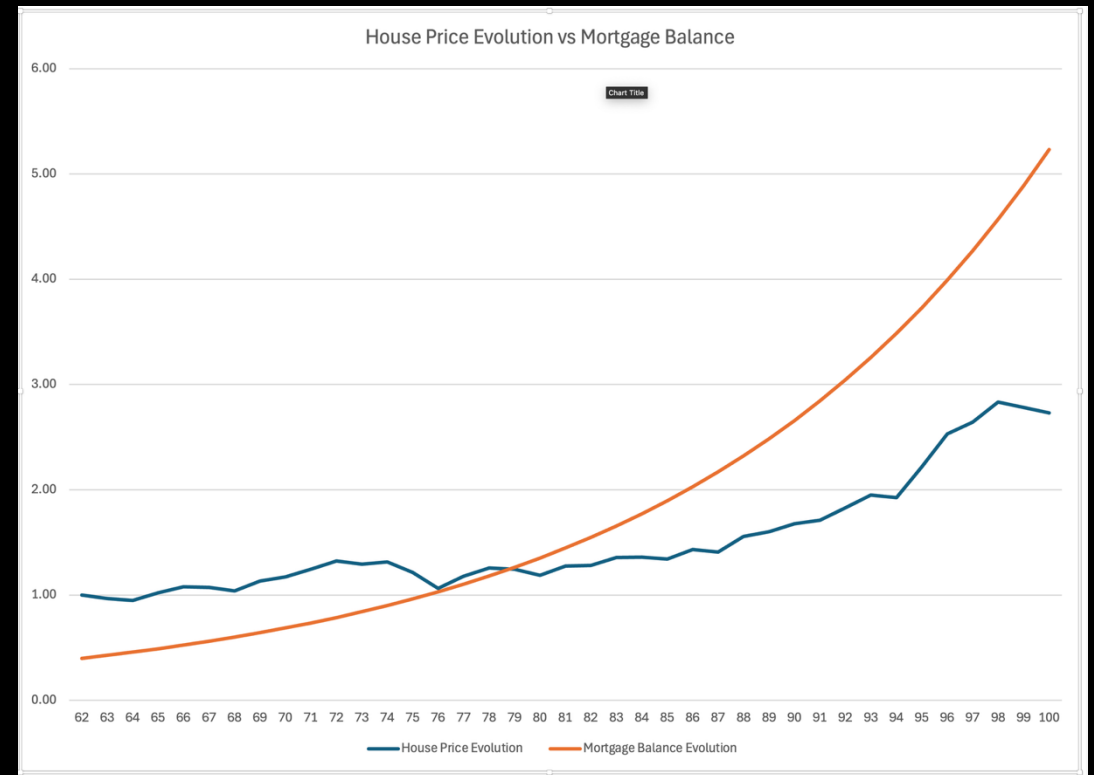
	Year	House Price Evolution	MortgageBalanceEvolution	Age	Female Mortality		
Lump sum	0.4	1	1.00	0.40	62.00	0.01	0.01
Rate	0.044	2	0.96	0.42	63.00	0.01	0.01
Appreciation	-0.03948	3	0.88	0.44	64.00	0.01	0.01
Losses	-0.75601	4	0.84	0.46	65.00	0.01	0.01
SD	0.06	5	0.78	0.48	66.00	0.01	0.01
		6	0.78	0.50	67.00	0.01	0.01
		7	0.72	0.52	68.00	0.01	0.01
		8	0.65	0.54	69.00	0.02	0.01
		9	0.59	0.56	70.00	0.02	0.02
		10	0.50	0.59	71.00	0.02	0.02
		11	0.50	0.62	72.00	0.02	0.02
		12	0.48	0.64	73.00	0.02	0.02
		13	0.45	0.67	74.00	0.02	0.02
		14	0.43	0.70	75.00	0.03	0.02
		15	0.42	0.73	76.00	0.03	0.02
		16	0.43	0.76	77.00	0.03	0.03
		17	0.44	0.80	78.00	0.04	0.03
		18	0.44	0.83	79.00	0.04	0.03
		19	0.46	0.87	80.00	0.05	0.03
		20	0.43	0.91	81.00	0.05	0.03
		21	0.39	0.95	82.00	0.06	0.04
		22	0.35	0.99	83.00	0.06	0.04
		23	0.34	1.03	84.00	0.07	0.04
		24	0.32	1.08	85.00	0.08	0.04
		25	0.27	1.12	86.00	0.09	0.04
		26	0.25	1.17	87.00	0.10	0.04
		27	0.24	1.23	88.00	0.11	0.04
		28	0.25	1.28	89.00	0.12	0.04
		29	0.27	1.34	90.00	0.14	0.04
		30	0.26	1.39	91.00	0.15	0.04
		31	0.25	1.46	92.00	0.17	0.04
		32	0.23	1.52	93.00	0.19	0.03
		33	0.23	1.59	94.00	0.21	0.03
		34	0.20	1.66	95.00	0.23	0.03
		35	0.21	1.73	96.00	0.25	0.02
		36	0.21	1.81	97.00	0.26	0.02
		37	0.20	1.88	98.00	0.28	0.01
		38	0.20	1.97	99.00	0.30	0.01
		39	0.19	2.05	100.00	0.32	0.01
		40	0.18	2.14	101.00	0.34	0.01
		41	0.17	2.24	102.00	0.36	0.00
		42	0.18	2.34	103.00	0.38	0.00
		43	0.16	2.44	104.00	0.40	0.00
		44	0.16	2.55	105.00	0.42	0.00
		45	0.15	2.66	106.00	0.45	0.00
		46	0.15	2.78	107.00	0.48	0.00
		47	0.15	2.90	108.00	0.50	0.00
		48	0.16	3.03	109.00	0.53	0.00
		49	0.15	3.16	110.00	0.57	0.00
		50	0.14	3.30	111.00	0.60	0.00
		51	0.13	3.44	112.00	0.64	0.00
		52	0.13	3.60	113.00	0.68	0.00
		53	0.15	3.75	114.00	0.71	0.00
		54	0.14	3.92	115.00	0.75	0.00
		55	0.12	4.09	116.00	0.78	0.00
		56	0.12	4.27	117.00	0.82	0.00
		57	0.10	4.46	118.00	0.86	0.00
		58	0.10	4.66	119.00	0.91	0.00

Two Crossing Point Scenarios

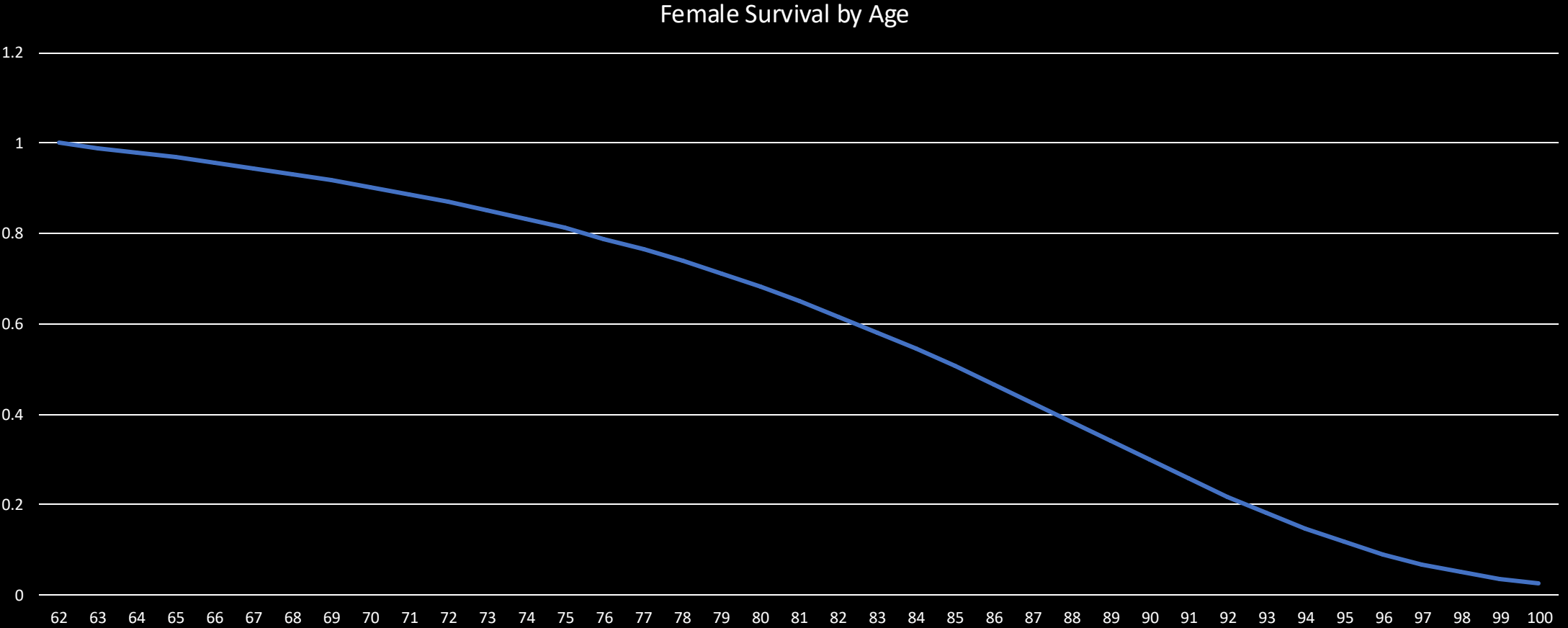
Base Case (constant appreciation)



Moderately Low Appreciation Outcome



This creates a problem for FHA



The HECM MIP Problem

The true cost of HECM

- Interest Rate
- Upfront Premium based on appraised value
- Monthly Premium based on balance
- Origination fees (between 1 and 2 percent)
- Appraisal and Title Insurance
- Other fees (vary by state)

Assume current 6.5 percent rate

Life of Loan	Effective Rate (Minimum)
10	7.83%
15	7.64%
20	7.54%
25	7.49%

HECMS vs HELOCS

HECM

- Effective Rate ~ 7.5%+
- Maximum LTV 40-50
- Credit quality of borrower matters a lot less
- No Payment Shock

HELOC

- SoFi Bank today 7.0%
- But..for best quality credit
- Maximum CLTV 80 or higher
- Interest Payments
- Payment Shock

Suggestions (which won't happen for awhile)

A More HELOC like HECM

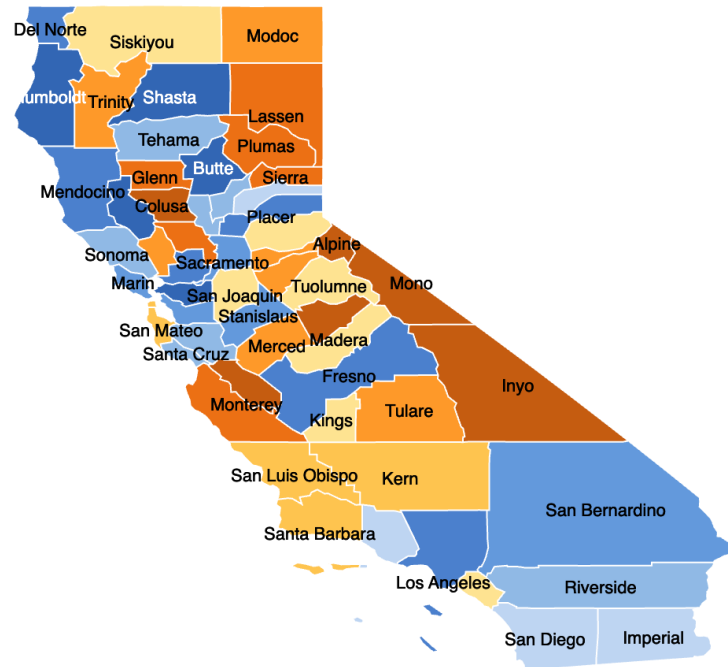
- IO loan
- Life of borrower revolver
- No payment shock

Annuity HECM

- Annuity formula based on appraised value and age
- Pooling Mortality Risk
- One step further—Tontine?

Education and Health Services Location Quotients

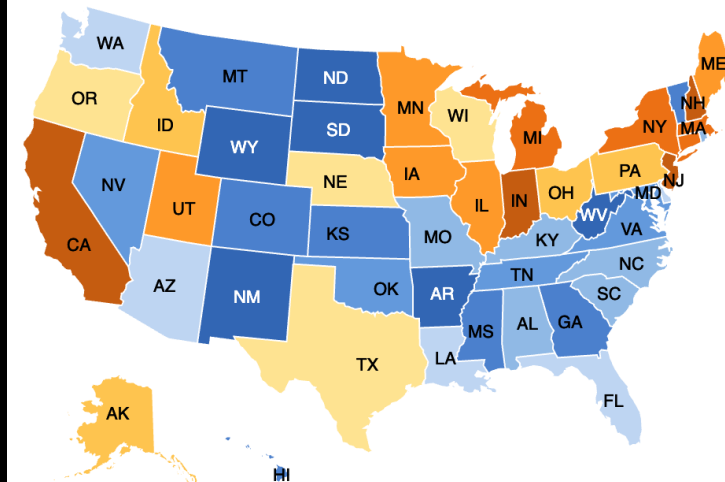
Location quotient, Education and Health Services Private Sep 2024 (p)



Source: U.S. Bureau of Labor Statistics (www.bls.gov)



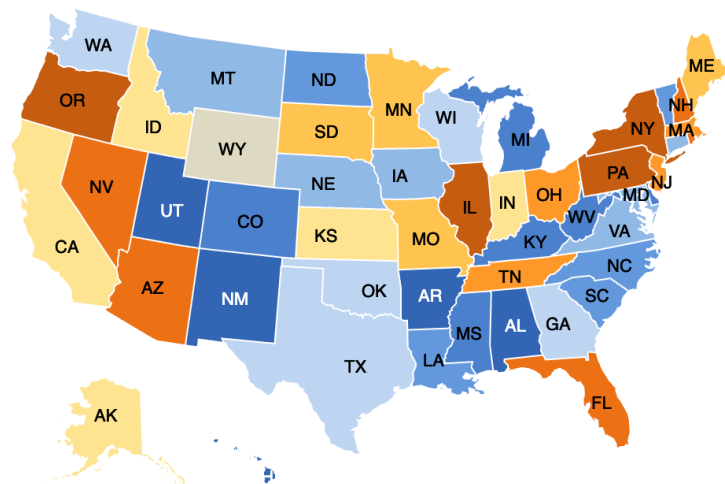
Location quotient, Education and Health Services Federal Government Sep 2024 (p)



Source: U.S. Bureau of Labor Statistics (www.bls.gov)



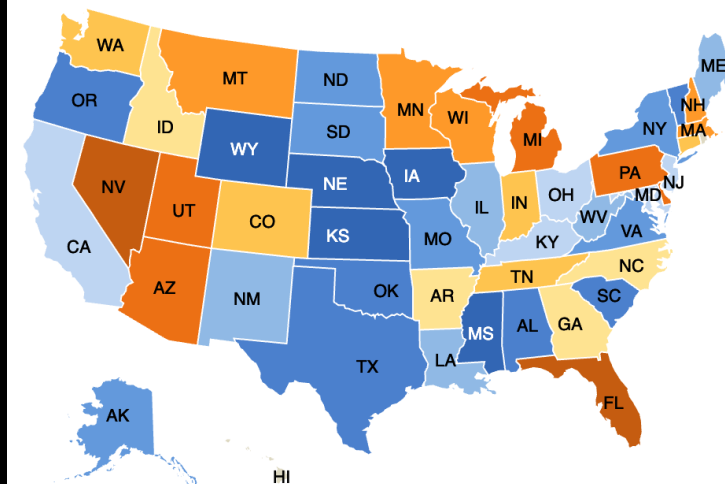
Location quotient, Education and Health Services State Government Sep 2024 (p)



Source: U.S. Bureau of Labor Statistics (www.bls.gov)



Location quotient, Education and Health Services Local Government Sep 2024 (p)

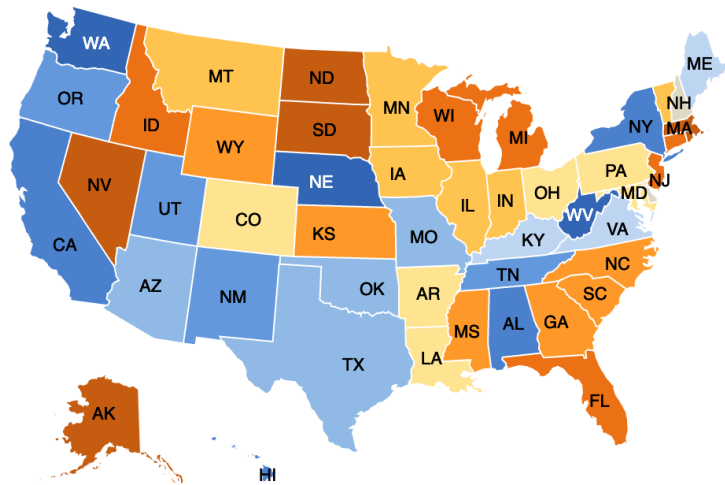


Source: U.S. Bureau of Labor Statistics (www.bls.gov)



Trade industry and Warehouse Worker LQs

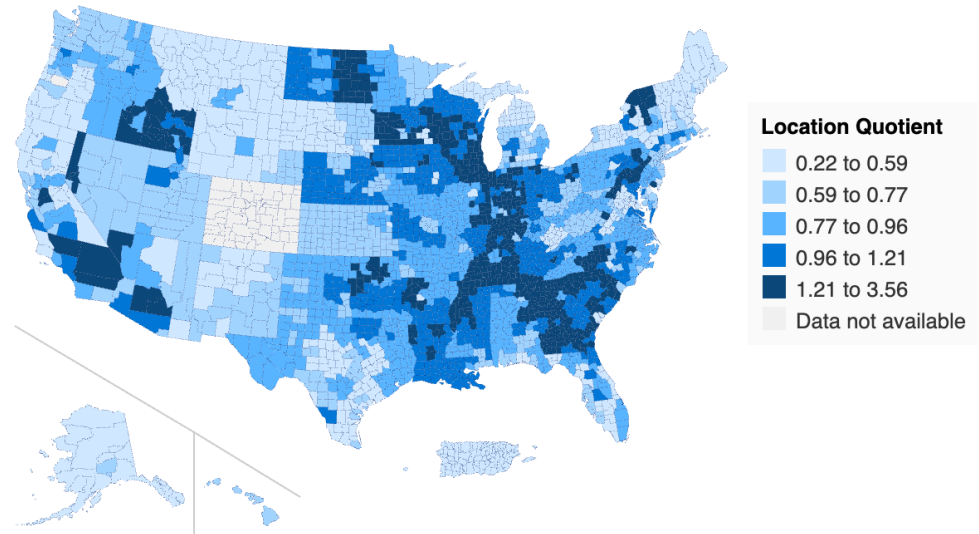
Location quotient, Trade, Transportation, and Utilities Local Government
Sep 2024 (p)



Source: U.S. Bureau of Labor Statistics (www.bls.gov)



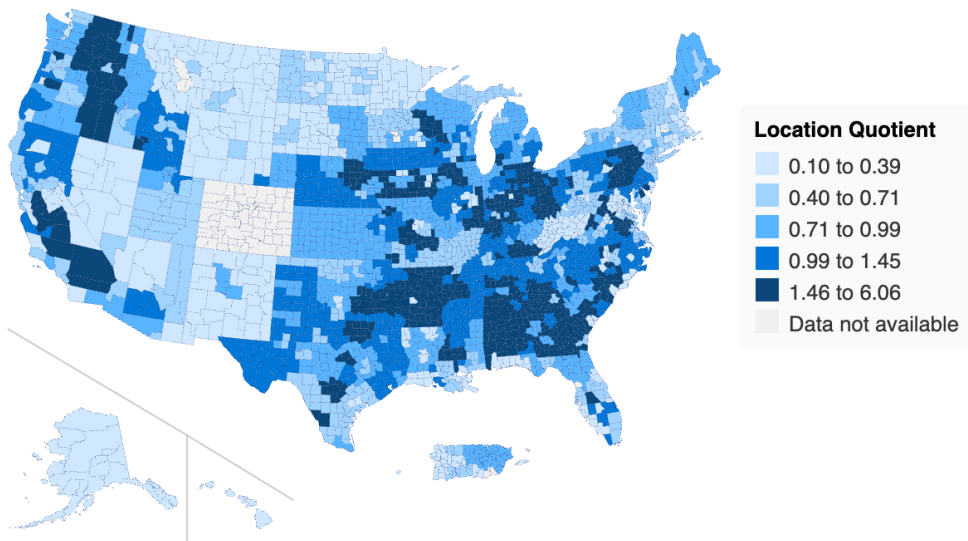
Location quotient of laborers and freight, stock, and
material movers, hand, by metropolitan area, May 2024



Source: U.S. Bureau of Labor Statistics (www.bls.gov)

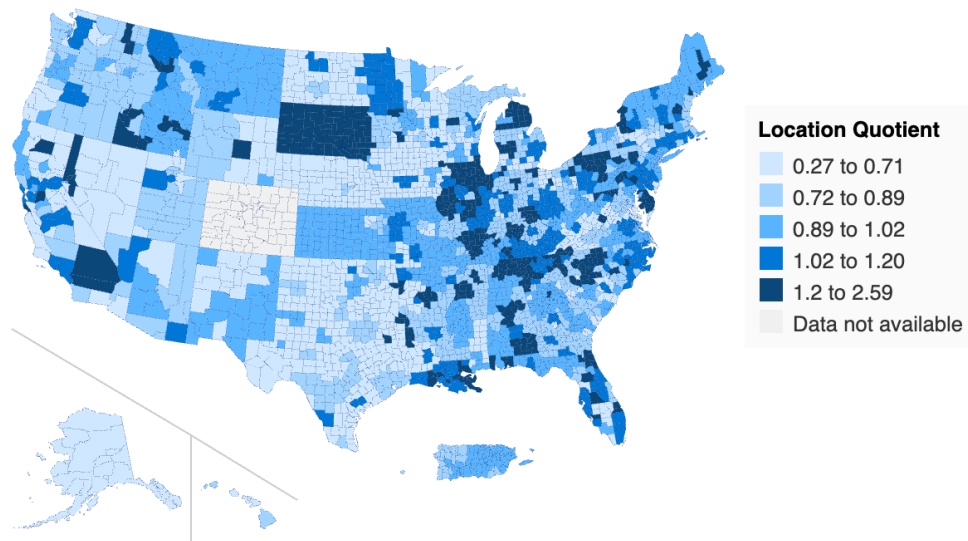
Truck Driver LQ

Location quotient of industrial truck and tractor operators, by metropolitan area, May 2024



Source: U.S. Bureau of Labor Statistics (www.bls.gov)

Location quotient of light truck drivers, by metropolitan area, May 2024



Source: U.S. Bureau of Labor Statistics (www.bls.gov)