



# AI Boot Camp Project 1



Kurt Andreassen, Jason Campbell,  
Amelia Fernandez, Jennifer Stipe

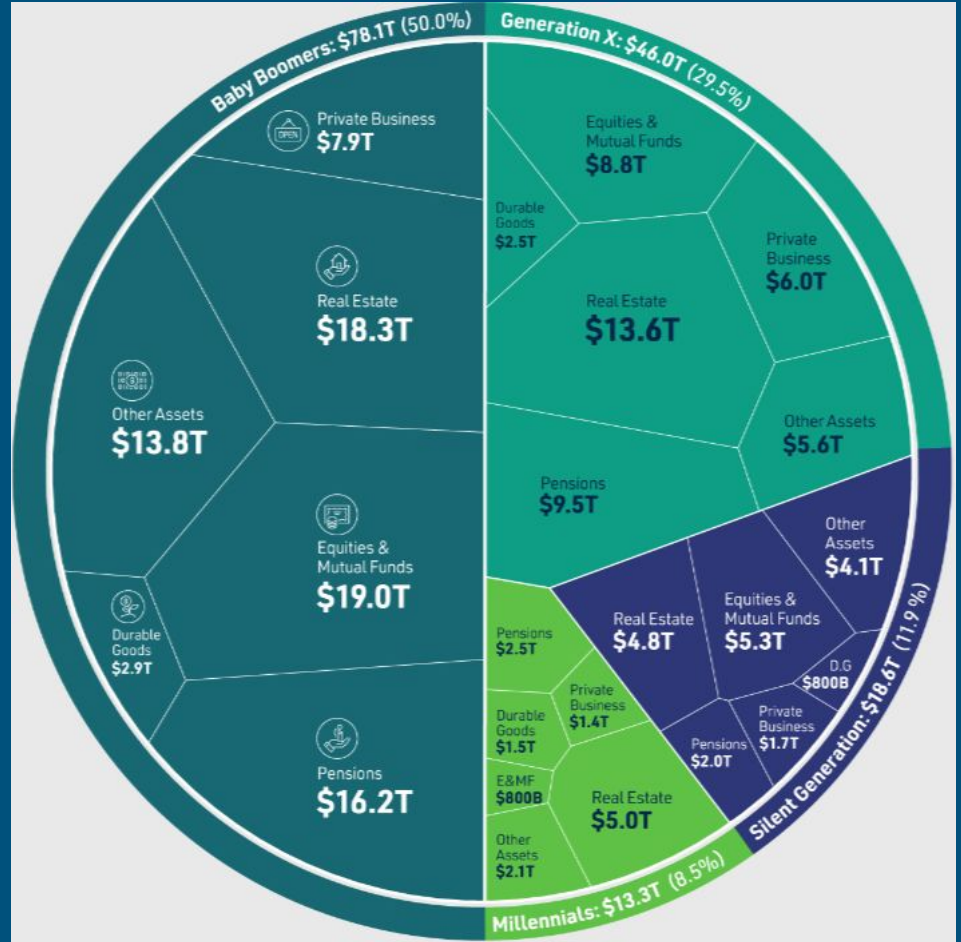
15 May 2024



# Project Goal

Our project aim is to answer if adult children are not doing as well as earlier generations.

Using data from home prices, rental costs, and income

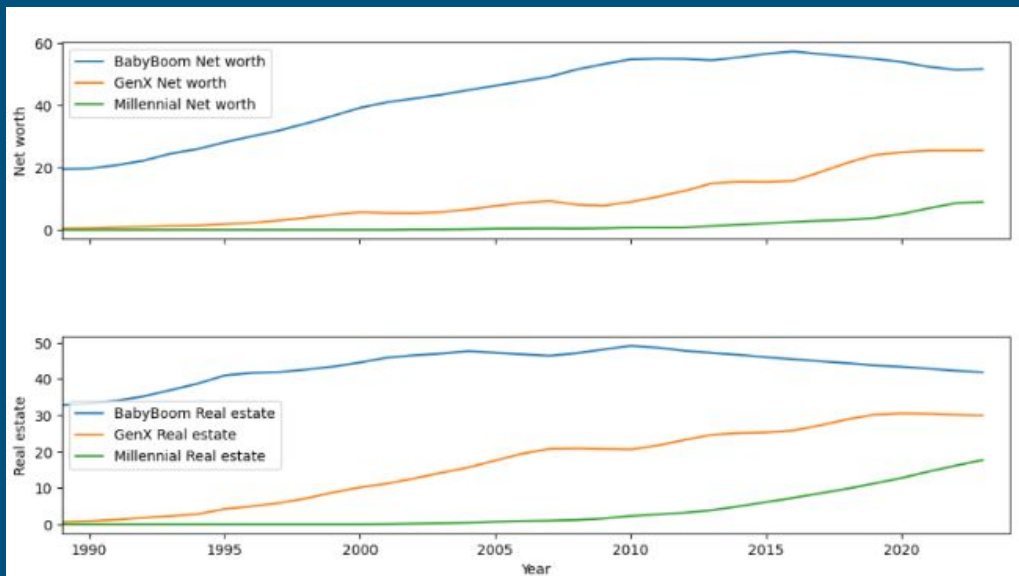


# Methodology

- Utilized Generation data for analysis, with comparison at age 35 for analysis purposes.
- Our main sources of data were csv files downloaded from the Federal Reserve Website, providing detailed assets, liabilities, and net worth information by generation from 1989 through 2023 and US Census information on home ownership. See Reference data in Appendix.
- For some insights this data was adjusted for inflation using an online inflation calculator to bring applicable figures upto 2023 equivalent
- The Silent Generation and GenZ excluded from analysis

Generation	Date Born	Current Age	35 yr Midpoint Year Used for Analysis
Silent	Prior to 1945	79 - 94	N/A
Baby Boomer	1946 to 1964	60 - 78	1990
GenX	1965 to 1980	44 - 59	2007
Millennials	1981 to 1994	30 -43	2023
GenZ	1995 to 2009	15 - 29	N.A

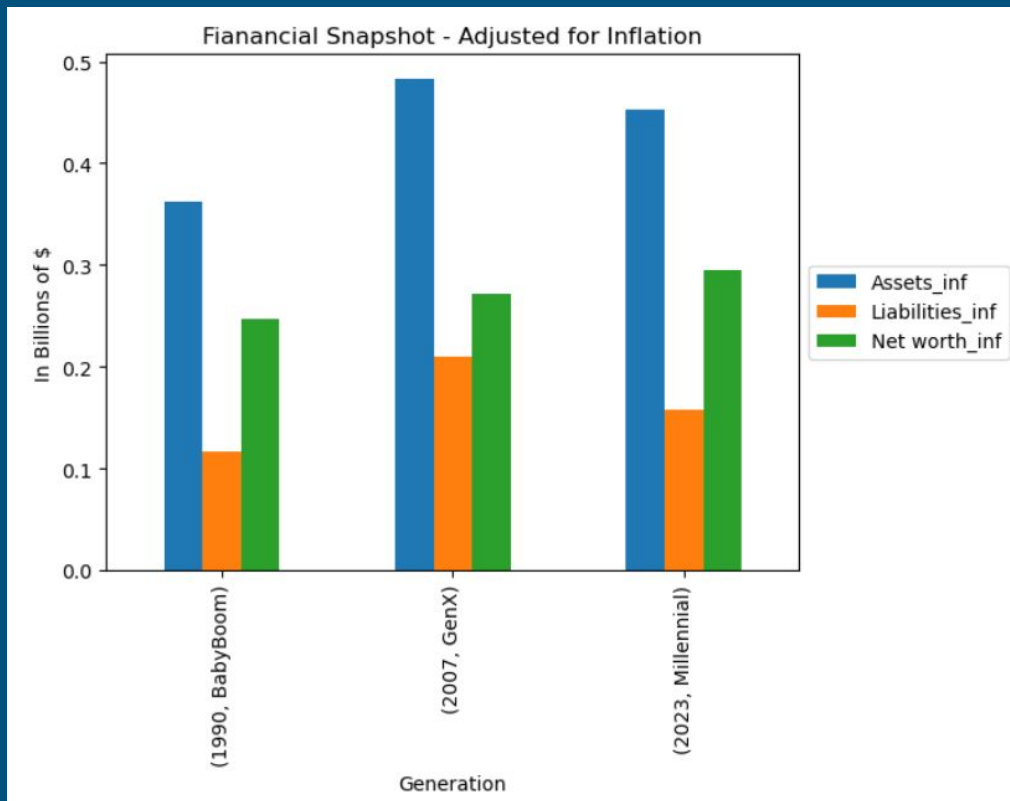
# Net worth and Real Estate by Generation



- Baby boomers are collectively 8 times wealthier than millennials
- Millennials have made strong gains in real estate value over the last several years as they enter peak home buying age (36 years old)
- Millennials Real estate holdings are a higher share than their Net worth indicating that they hold substantial liabilities
- Baby boomers owned 25% more real estate than Generation X at the same age.
- GenX expected to increase due to prime earning years, inheritance, etc., decrease over last 3 years unexpected (high home prices, debt)

# Financial Snapshot

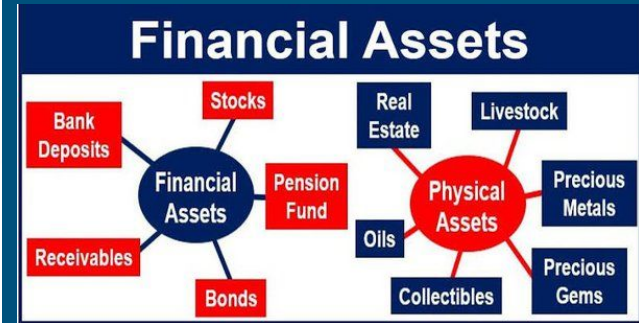
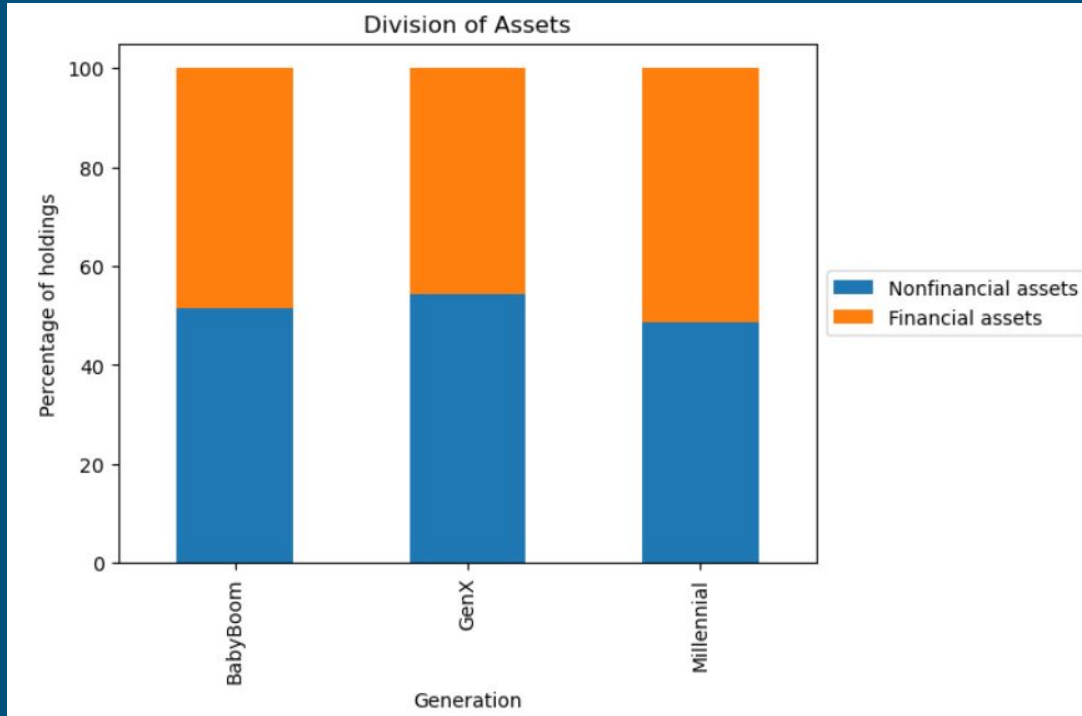
## Generational wealth at a median age of 35



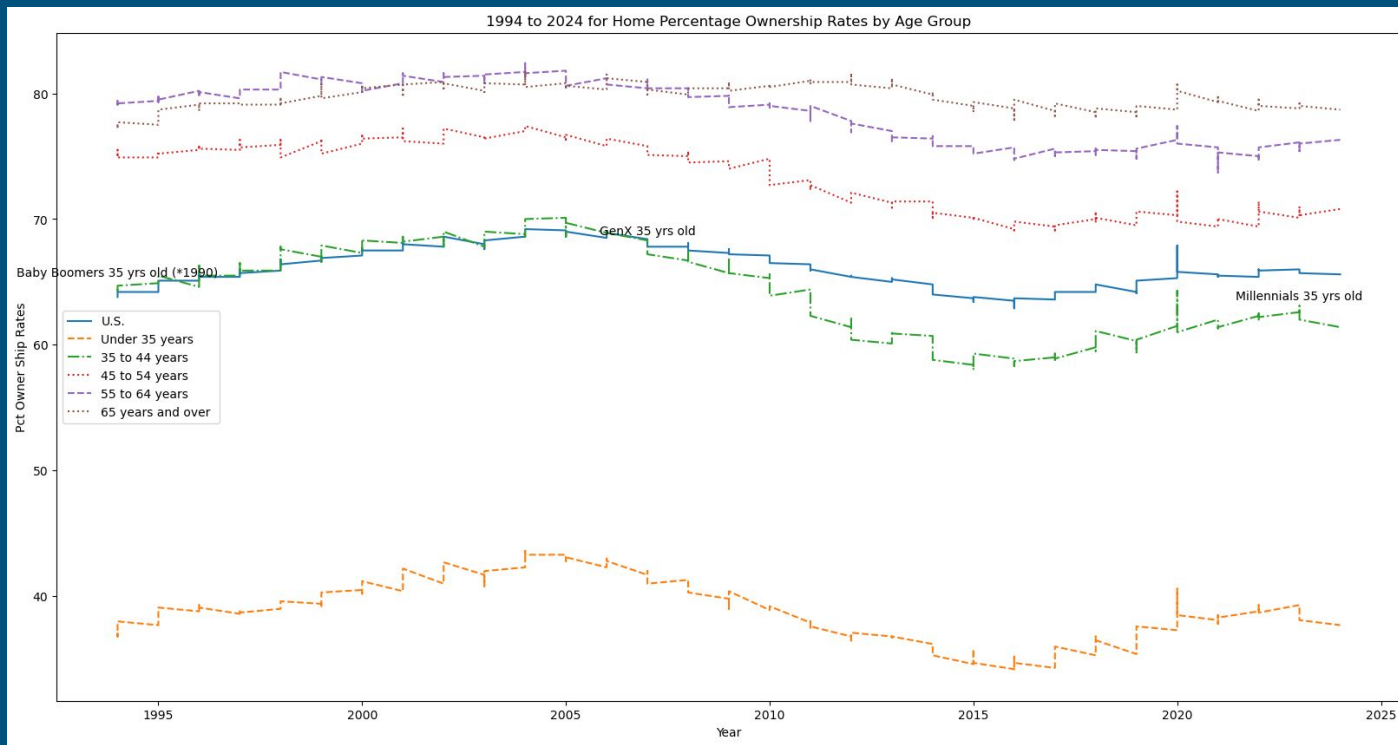
- Based on reports we expected to see a lower net worth for Millennials than GenX or Baby Boomers. However, their net worth at 35 is actually higher
- Millennials hold a less liabilities than GenX at 35, but more than Baby Boomers at the same age
- Baby Boomers actually had the lowest level of net worth at 35

# Financial Snapshot

As anticipated, Millennials hold less Nonfinancial assets, which includes real estate and consumer durables, than the previous generations

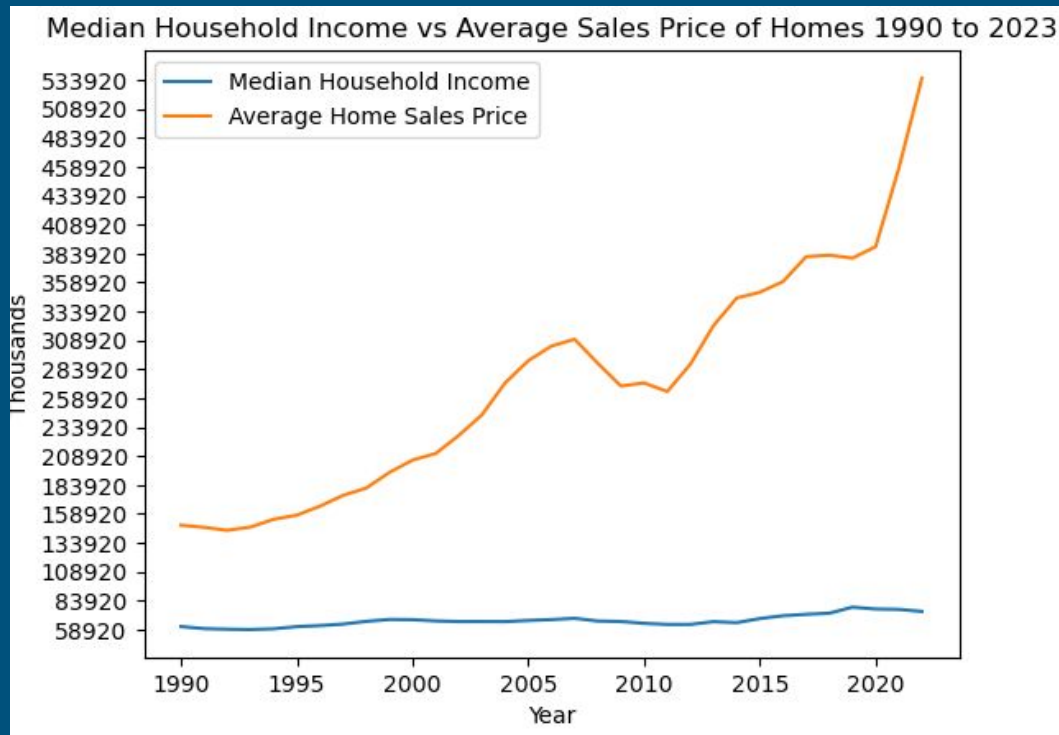


# Home Percentage Ownership Rates by Age Group



- Baby Boomer (64.5%),
- GenX (67.8%),
- Millennials (62.7%)
- GenX and Millennials waiting to purchase later in life

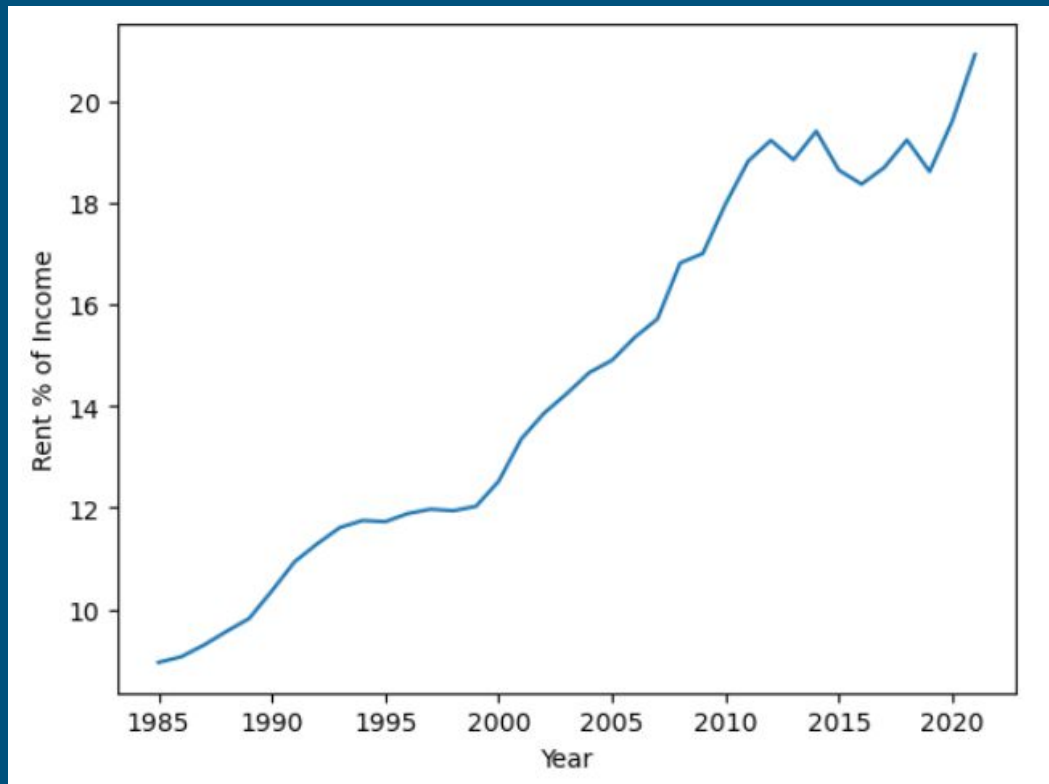
# Home Sale Price vs. Income over time



- The price of homes has increased at a much faster pace than household income, requiring larger down payment and higher monthly payments.

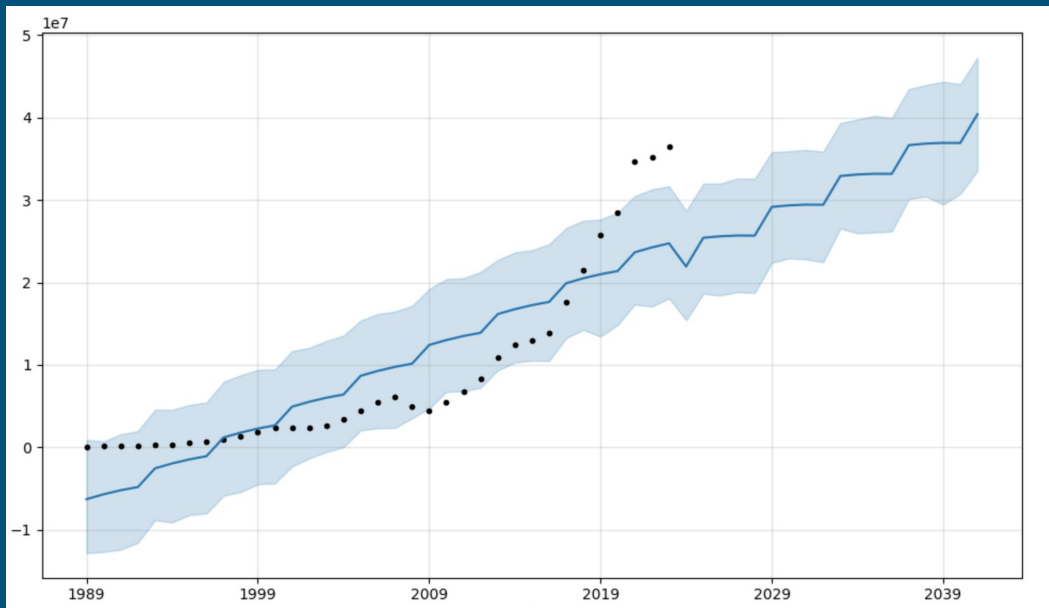


# Rent percent of income over time



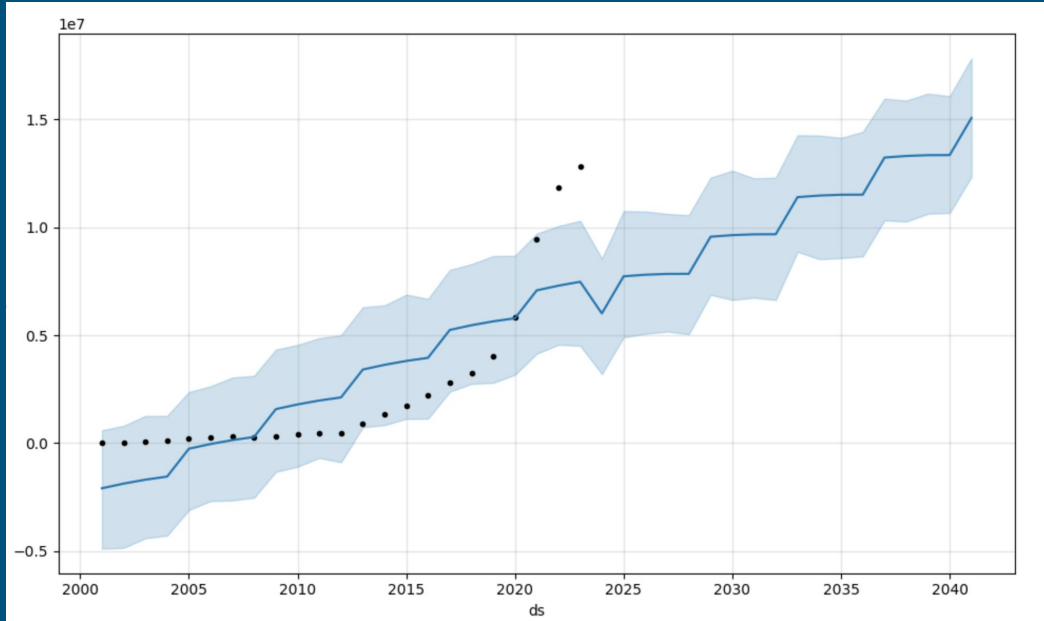
- Rent as a percent of income has continued to rise, and surpassed 20% in the last few years
- This coupled with rising inflation has led to a significant barrier to those who were not already home owners to purchase a home
- These are not adjusted for inflation as the measurement is inflation agnostic

# Predictions - Gen X: Net worth over time



- Recent increase above trend, not in wage gains but in value of assets
- The average net worth of Generation X is approximately \$1.04 million per household.
- Compared to the median net worth for Generation X households is around \$247,200.
- Their average net worth is notably higher, influenced by high earners within the generation

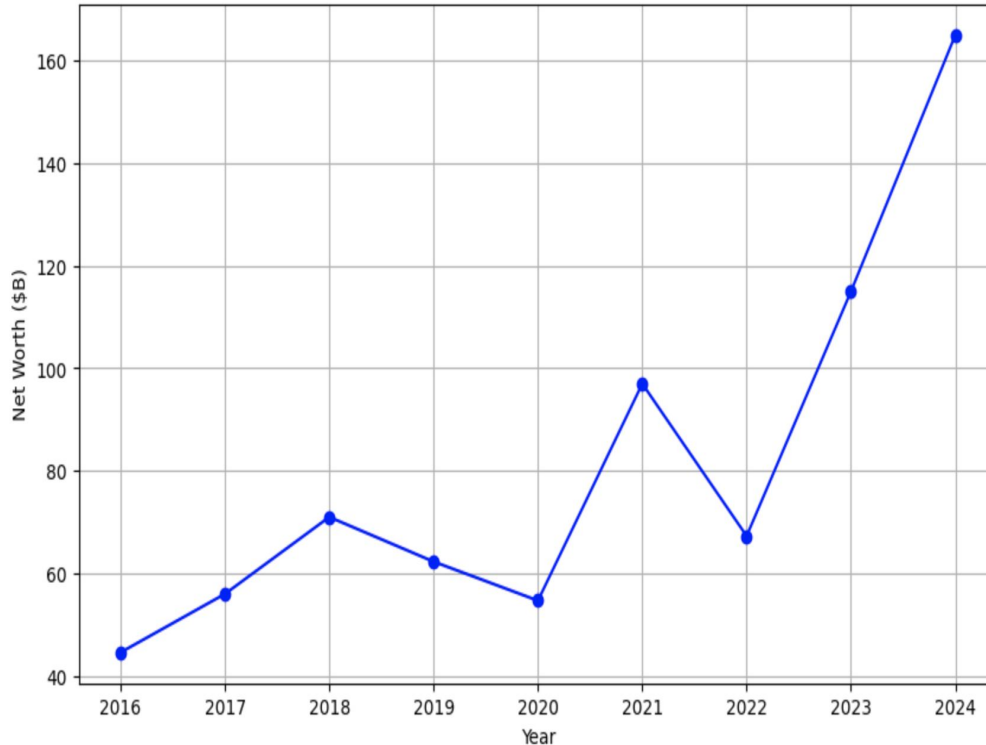
# Predictions - Millennial: Net worth over time



- Recent Increase in Net Worth is above trend but many measures show a growing gap between haves and have nots
- Baby boomer snow have a median net worth of \$206,700. However, the average net worth of baby boomers is considerably higher, at \$1.2 million
- The Gap Between Average Net Worth and Median is likely to increase as assets like real estate become harder and more expensive to attain

# One Millennial Skews results

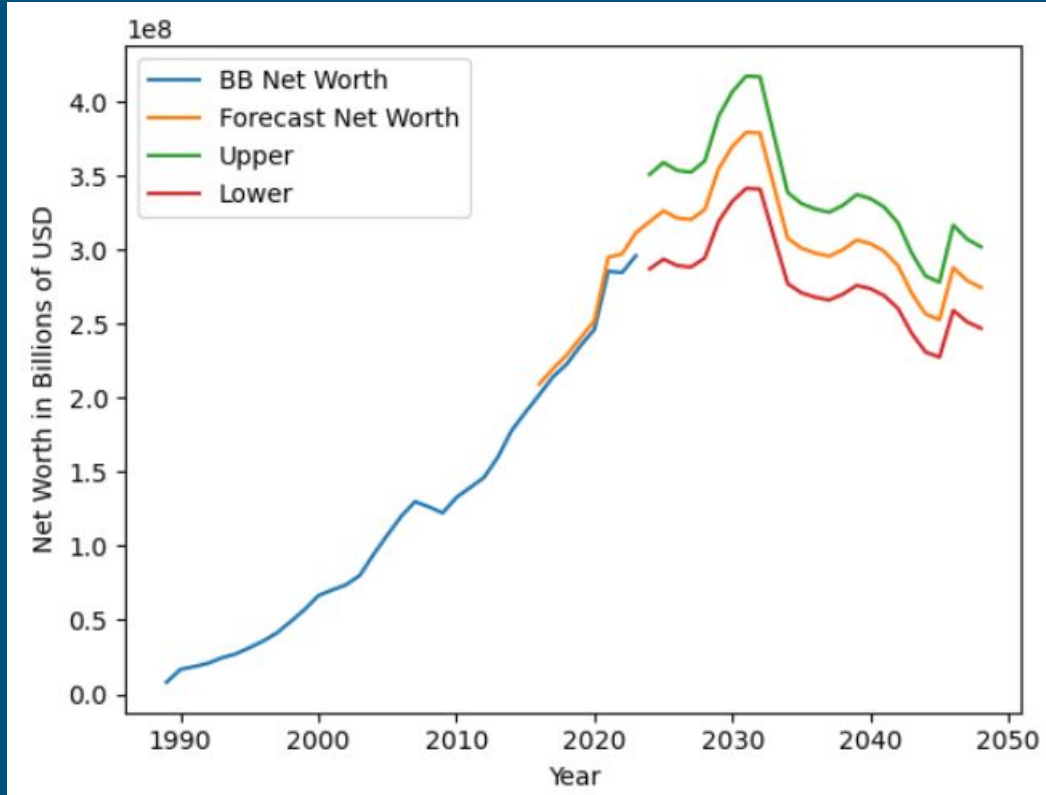
Mark Zuckerberg's Net Worth Over Time



- Mark Zuckerberg has 164.2 billion net worth currently
- 1.5 - 2% of all Millennial net worth

# Baby Boomer forecasted net worth

Internally created model



- Baby Boomer net worth forecast out based on internally created model - initial overlap period was within 3.5% accuracy
- The net worth of the Boomers will peak in the late 2020's and then will gradually fall as the members of the generation continue to retire and utilize savings
- Much of this wealth will also be passed along to younger generation in the form of inheritance

# Executive Summary

---

- Whether or not those in the Millennial generation are worse off financially than the recent previous generations is more nuanced than initially anticipated.
- Considering the number of working years left, Millennials will continue to be behind Boomers - and future generations may never get to the levels achieved by Boomers given the dissolving of pension plans
- Baby boomers are collectively 8 times wealthier than millennials
- Millennials have made strong gains in real estate value over the last several years as they enter peak home buying age (36 years old)
- Based on reports we expected to see a lower net worth for Millennials than GenX or Baby Boomers. However, their net worth at 35 is actually higher
- GenX and Millennials waiting to purchase later in life
- The price of homes has increased at a much faster pace than household income, requiring larger down payment and higher monthly payments.
- Rent as a percent of income has continued to rise, and surpassed 20% in the last few years, this coupled with rising inflation has led to a significant barrier to those who were not already home owners to purchase a home

# Next Steps



---

- More investigations into cost of living increases vs income increases to understand how any discrepancies in these changes could have an unequal impact on different generations
  - Cost to raise a child
  - tuition/loan data
- Impact of inheritance
- Exclude outliers - particularly the top X% that significantly skew results
- Estimate percentage change necessary for cost of living items to come down to put generations on more even footing



Thank You!

Q/A







# Appendix

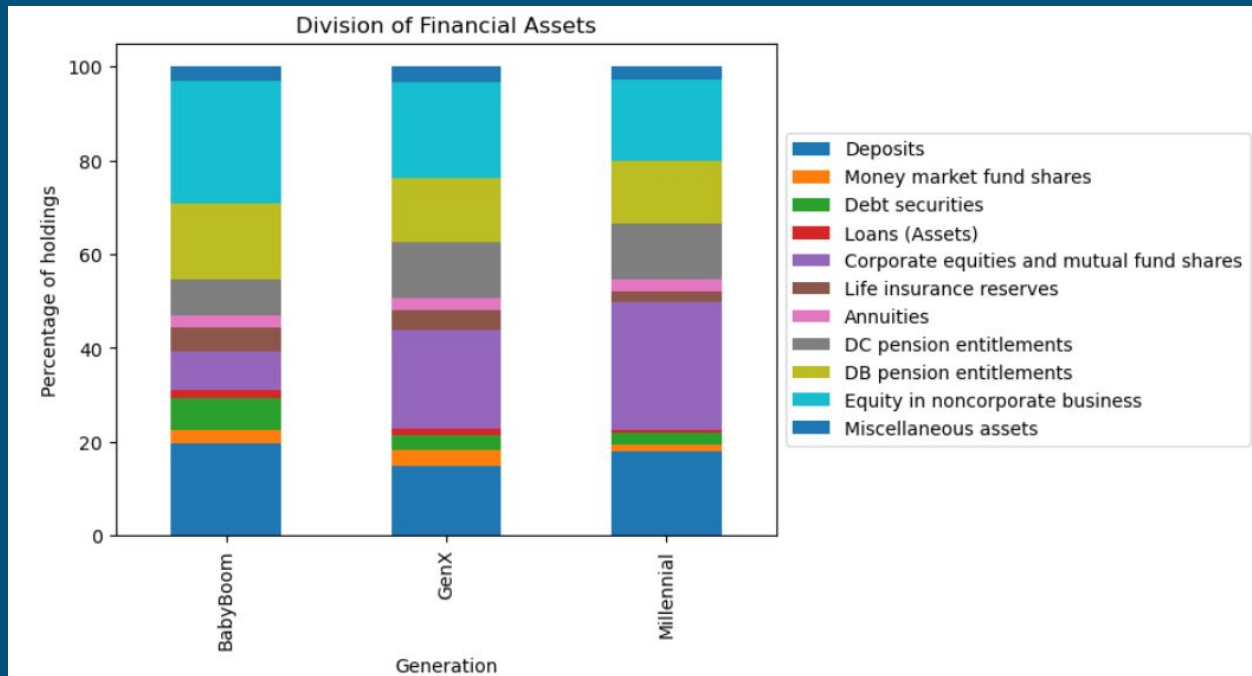


# Resources

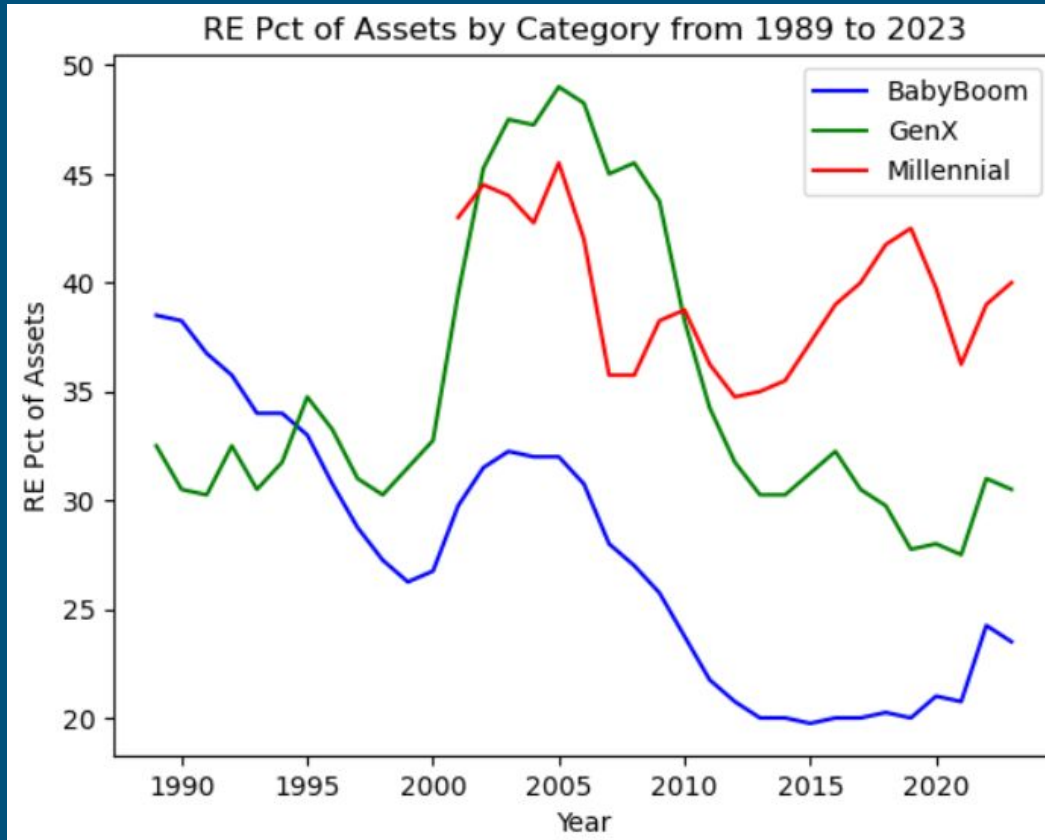
---

- Federal Reserve:
  - <https://www.federalreserve.gov/releases/z1/dataviz/dfa/compare/chart/#quarter:137;series:Assets;demographic:generation;population:all;units:levels>
  - Generation Levels Details (Assets, Liabilities, Networth)  
<https://www.federalreserve.gov/releases/z1/dataviz/download/zips/dfa.zip>, file name dfa-generation-levels-detail.csv
  - Generation Share Details (Pct of Assets, Liabilities, Networth)  
<https://www.federalreserve.gov/releases/z1/dataviz/download/zips/dfa.zip>, file name dfa-generation-shares-detail.csv
  - Average Home Price in United States: <https://fred.stlouisfed.org/series/ASPU>
  - Medium Income in United States: <https://fred.stlouisfed.org/series/MEH01NUSA646N>
- US Census
  - Table 14. Quarterly Homeownership Rates for the U.S. and Regions: 1964 to Present:  
<https://www.census.gov/housing/hvs/data/histtab14.xlsx>
  - Table 19. Quarterly Homeownership Rates by Age of Householder: 1994 to Present:  
<https://www.census.gov/housing/hvs/data/histtab19.xlsx>

# Financial Snapshot

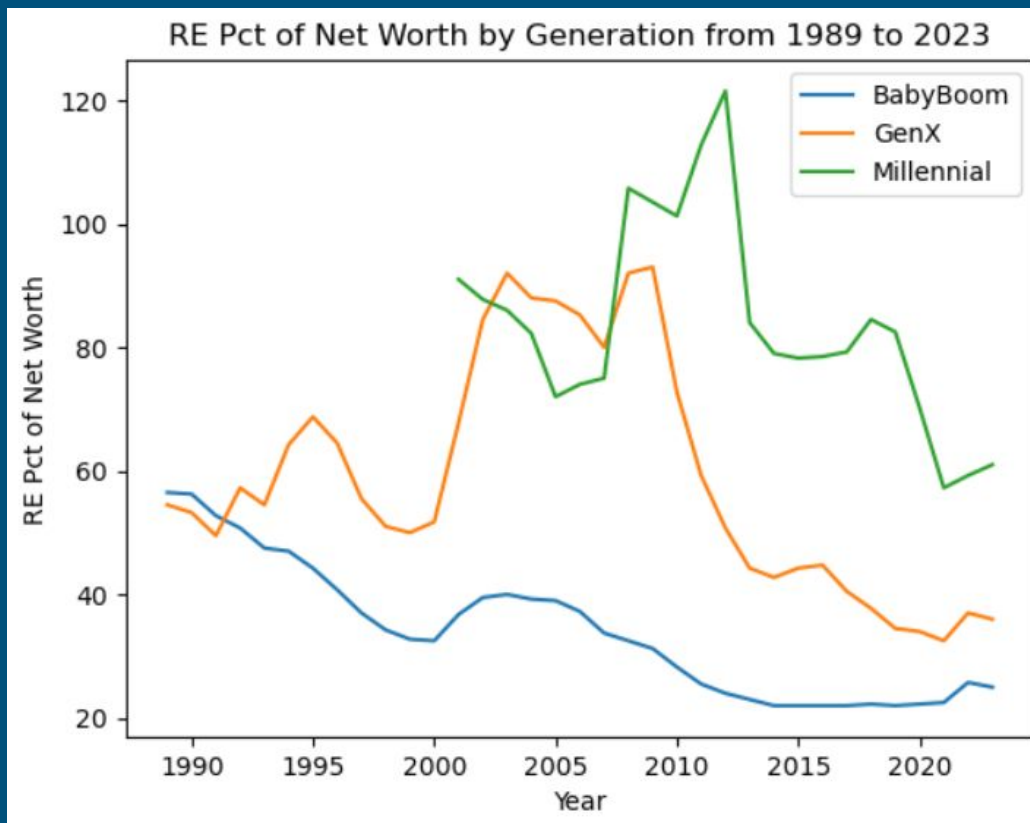


# Real Estate Percent of Total Assets



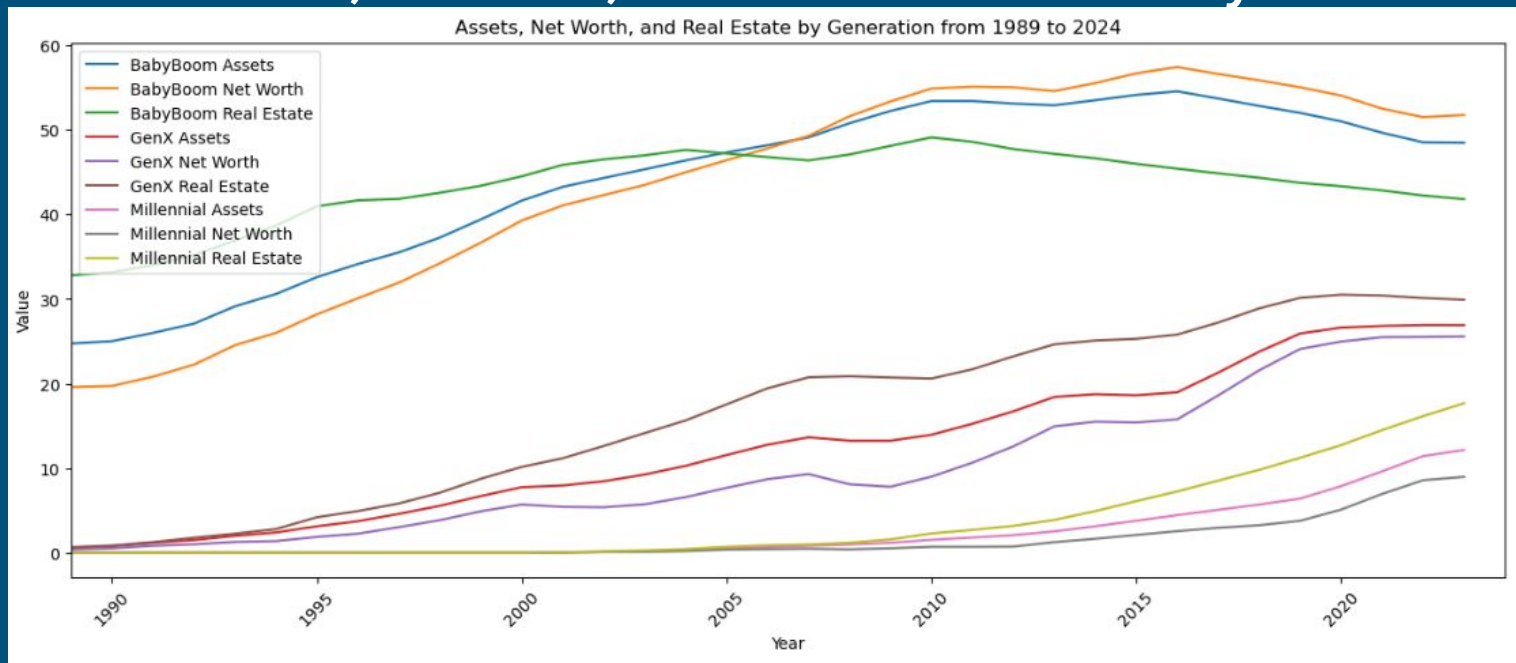
- Baby Boomer % initially unexpected, assets include higher level of not real estate assets (stocks, pensions, etc.)
- Spikes across all generations in the last few years underscores the quickly rising home prices/values across the country.

# Real Estate Percent of Net Worth



- Real Estates % of Net Worth tends to decline as generations age due to continual growth and contributions to other assets like retirement plans. Traditionally, homeowners will downsize in later years, this trend is changing due to the rate at which the cost of housing is increasing.

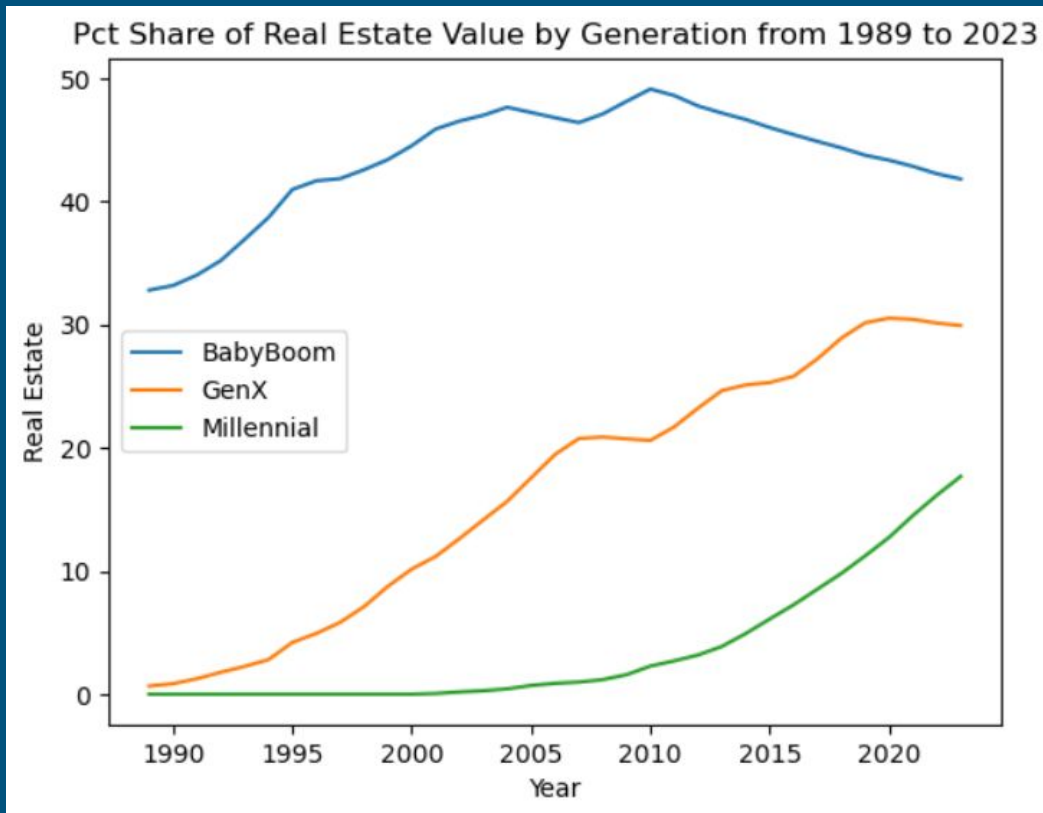
# Net worth, Assets, and Real Estate by Generation



- A very clear distinction is visible between the generations.

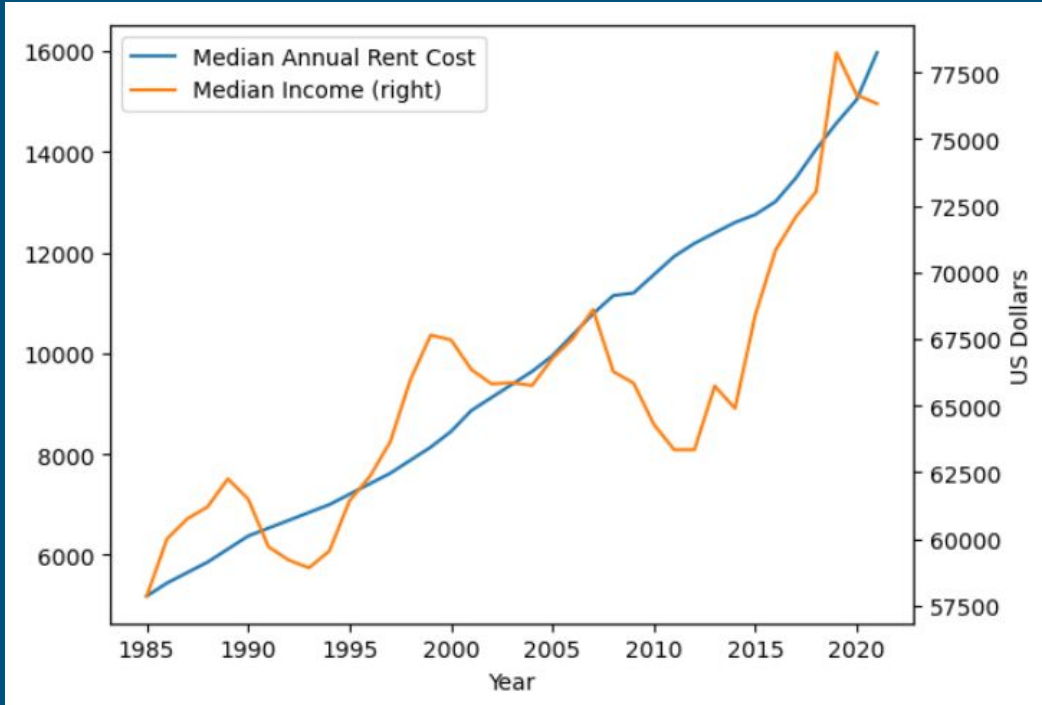
-

# Percent of Real Estate value by Generation



- Percent of real estate for Baby Boomers declining due to age, downsizing, lifestyle changes.
- GenX expected to increase due to prime earning years, inheritance, etc., decrease over last 3 years unexpected (high home prices, debt)
- Millennials entering peak home buying age (36 years old)

# Median income vs. median rental cost over time



- Median rental costs have increased at a greater rate than income resulting in consumers struggling to afford rising costs and in some cases unable to save for the down payment to purchase a home



# Financial Snapshot

## Generational wealth at a median age of 35

