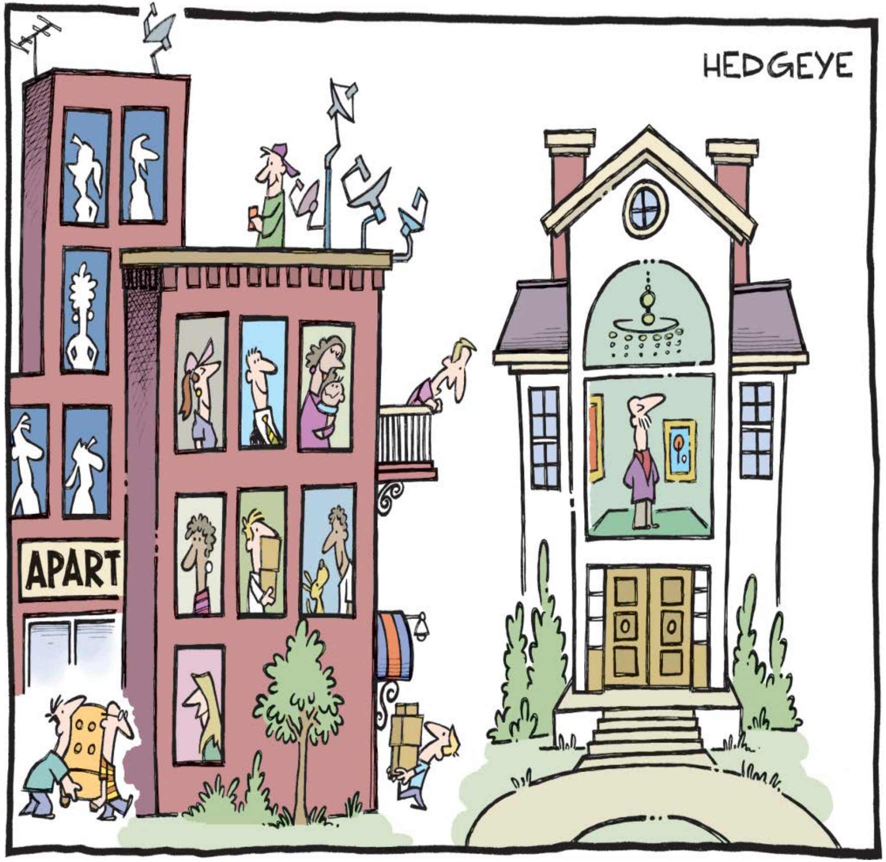
US HOUSING DEMOGRAPHICS

GET READY FOR THE DEMOGRAPHIC "NEW NORMAL" IN HOUSING

MARCH 2, 2016



DISCLAIMER

DISCLAIMER

Hedgeye Risk Management is a registered investment advisor, registered with the State of Connecticut. Hedgeye Risk Management is not a broker dealer and does not provide investment advice for individuals. This research does not constitute an offer to sell, or a solicitation of an offer to buy any security. This research is presented without regard to individual investment preferences or risk parameters; it is general information and does not constitute specific investment advice. This presentation is based on information from sources believed to be reliable. Hedgeye Risk Management is not responsible for errors, inaccuracies or omissions of information. The opinions and conclusions contained in this report are those of Hedgeye Risk Management, and are intended solely for the use of Hedgeye Risk Management's clients and subscribers. In reaching these opinions and conclusions, Hedgeye Risk Management and its employees have relied upon research conducted by Hedgeye Risk Management's employees, which is based upon sources considered credible and reliable within the industry. Hedgeye Risk Management is not responsible for the validity or authenticity of the information upon which it has relied.

TERMS OF USE

This report is intended solely for the use of its recipient. Re-distribution or republication of this report and its contents are prohibited. For more details please refer to the appropriate sections of the Hedgeye Services Agreement and the Terms of Use at www.hedgeye.com

PLEASE SUBMIT QUESTIONS* TO

QA@HEDGEYE.COM

**ANSWERED AT THE END OF THE CALL*

THE DEMOGRAPHIC “NEW NORMAL”

1. An Aging America – Intro

2. Long-Term Housing Projections

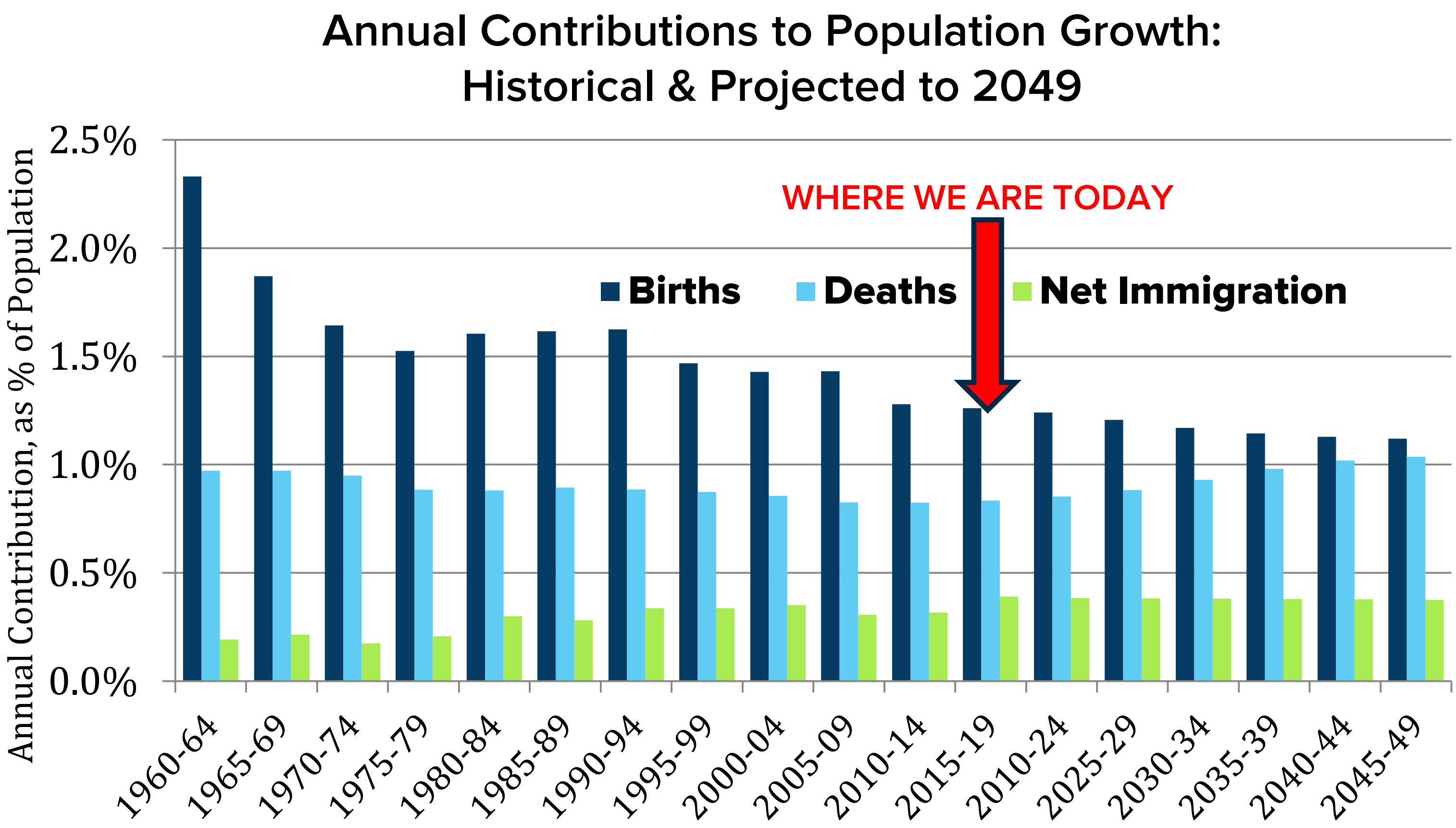
3. Near-Term Age-Bracket Projections

4. Seven Drivers Reshaping the Industry

5. Summary & (Personal) Trend Forecasts

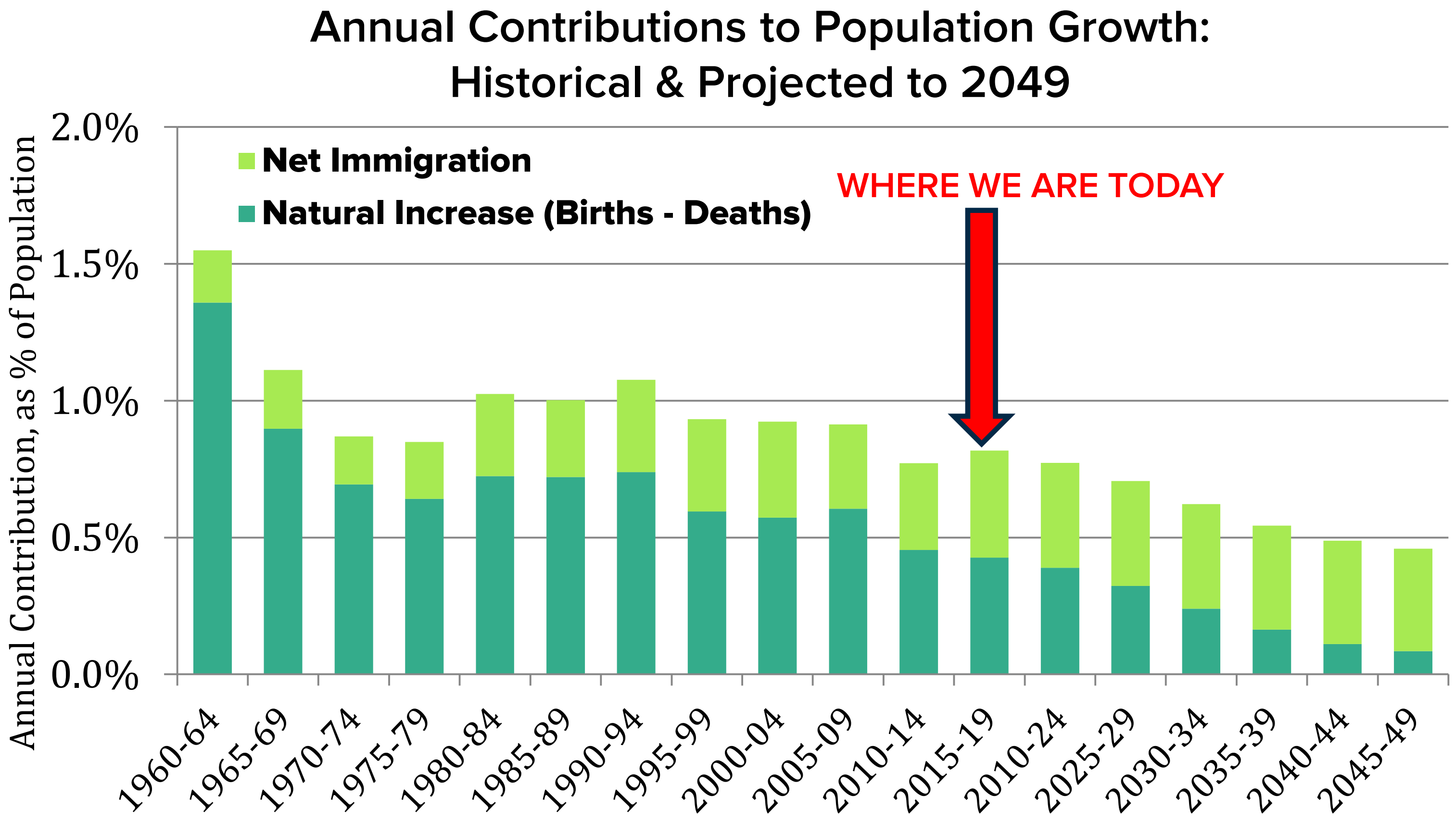
1. AN AGING AMERICA – INTRO

BIRTHS DOWN, DEATHS UP



Source: U.S. Census (2008-2016)

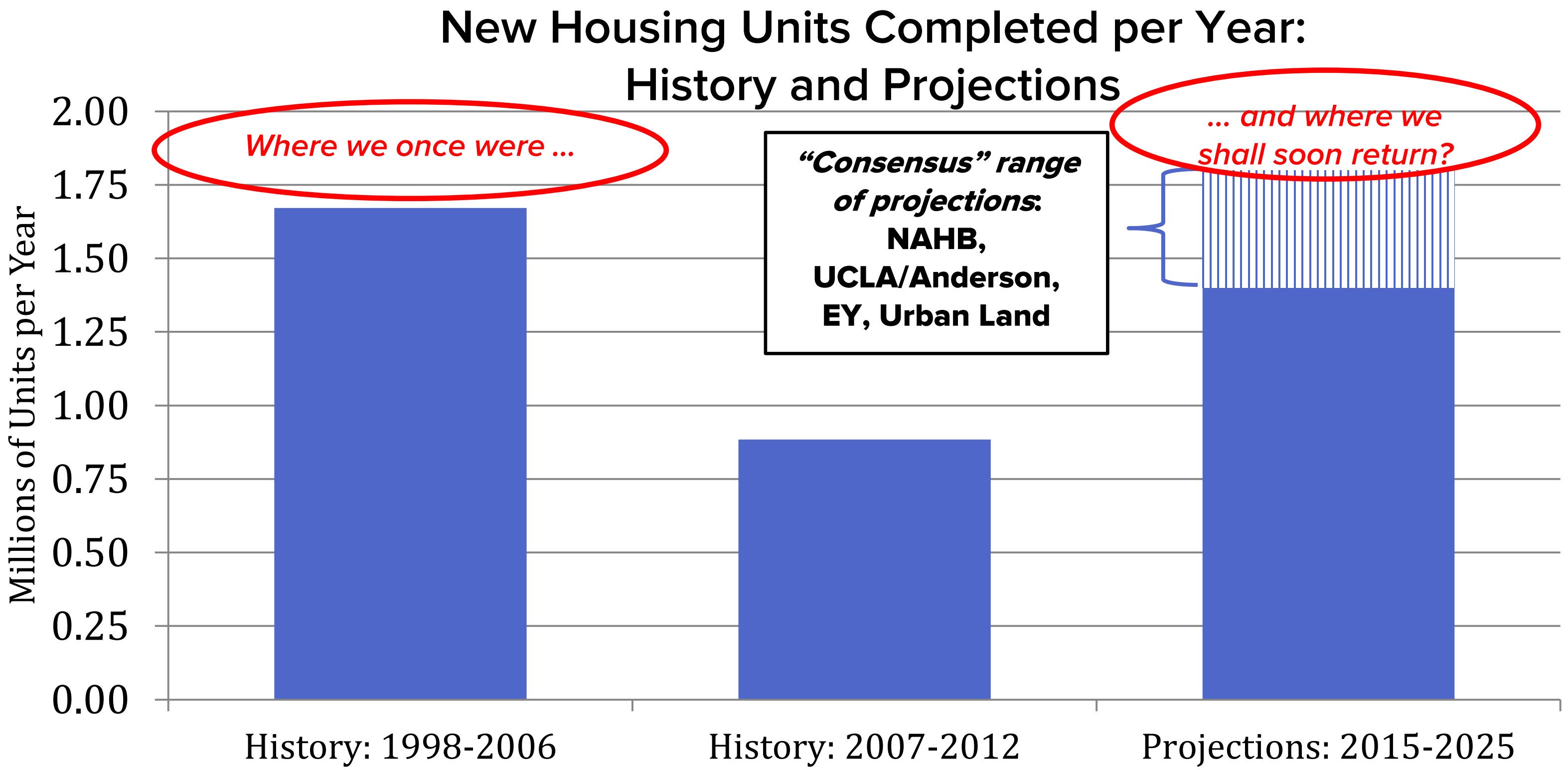
TOTAL GROWTH RATE ↓, IMMIGRATION CRITICAL



Source: U.S. Census (2008-2016)

2. LONG-TERM HOUSING PROJECTIONS

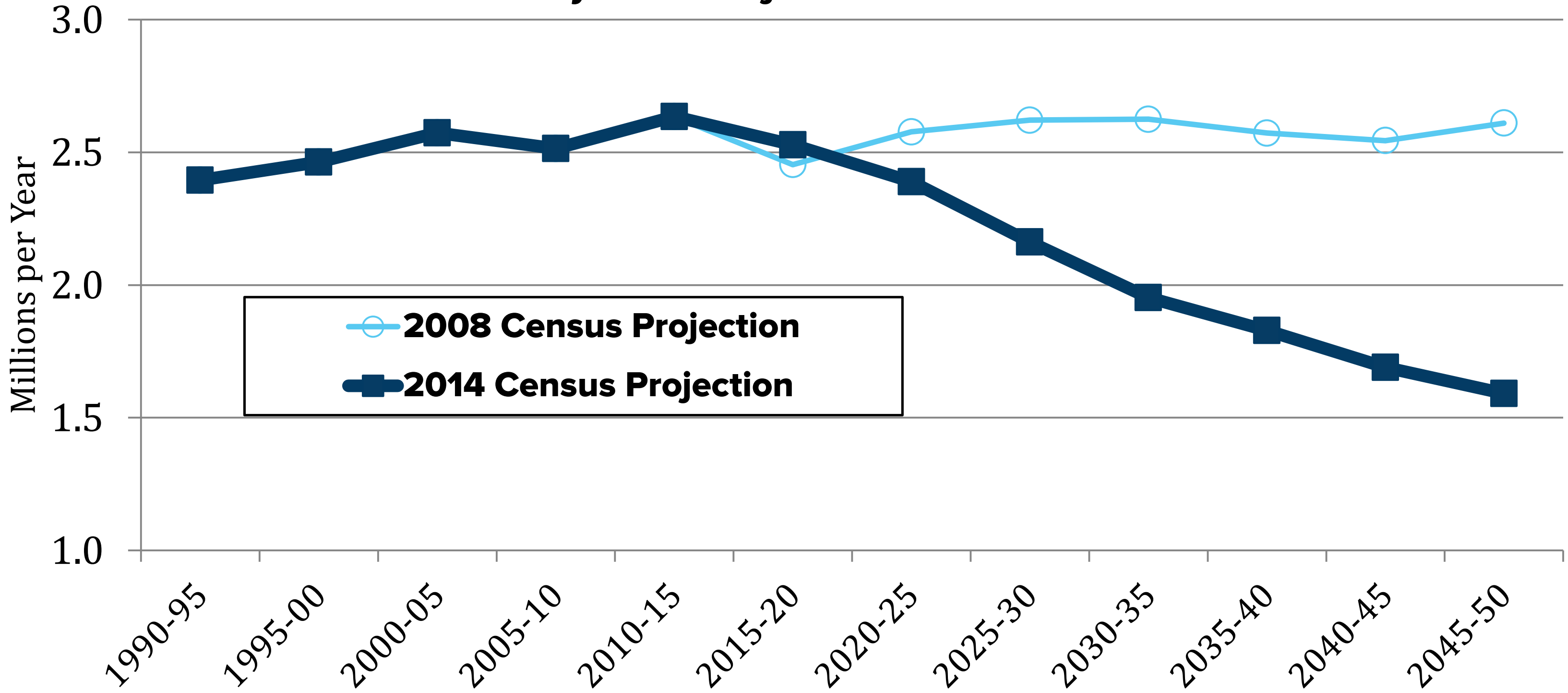
EXPECTED "RETURN TO NORMALCY" BACK IN 2013



Source: U.S. Census (2008-2013) and financial media

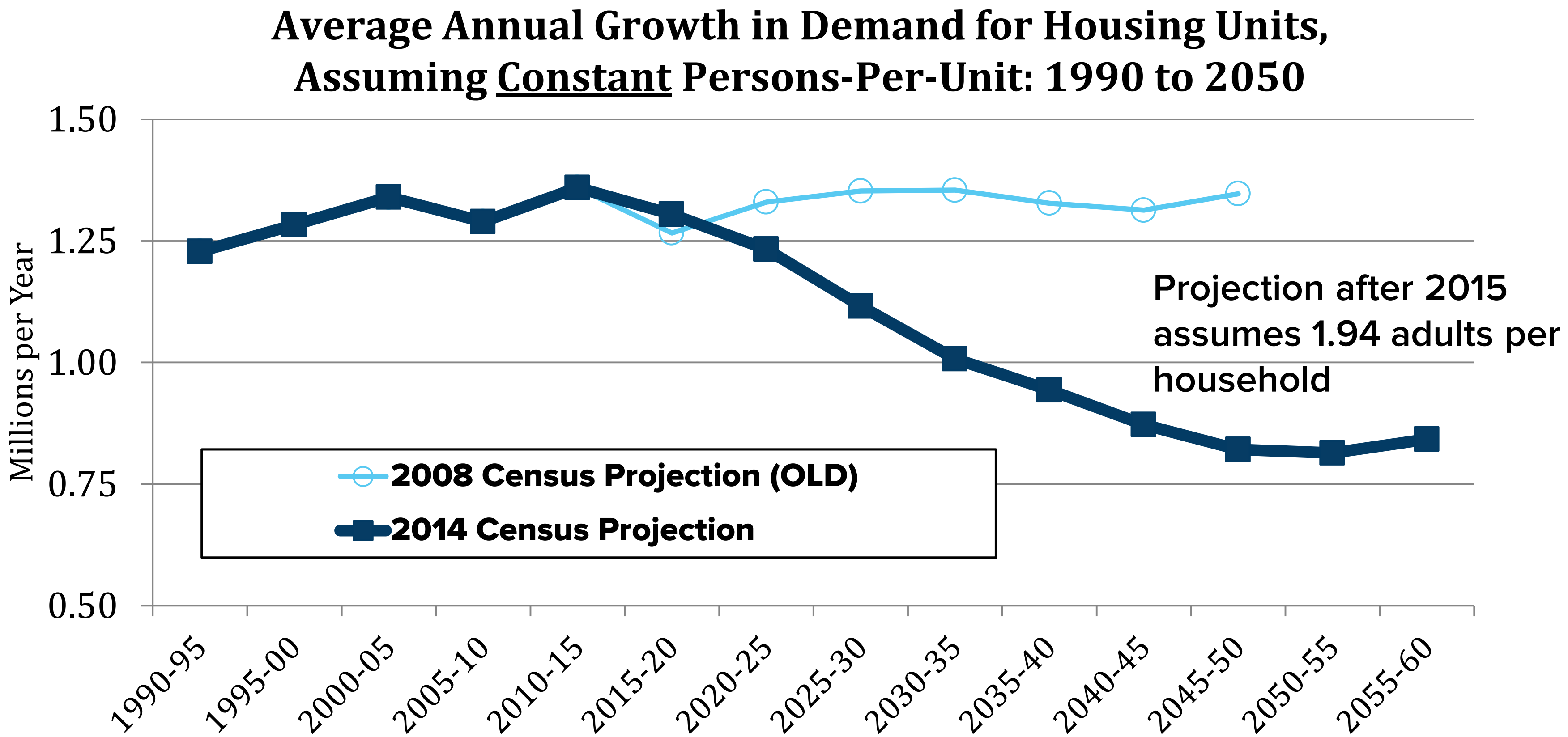
NEW CENSUS ESTIMATES → FEWER NEW ADULTS...

Average Annual Growth in Population of U.S. Adults, History and Projections: 1990 to 2050



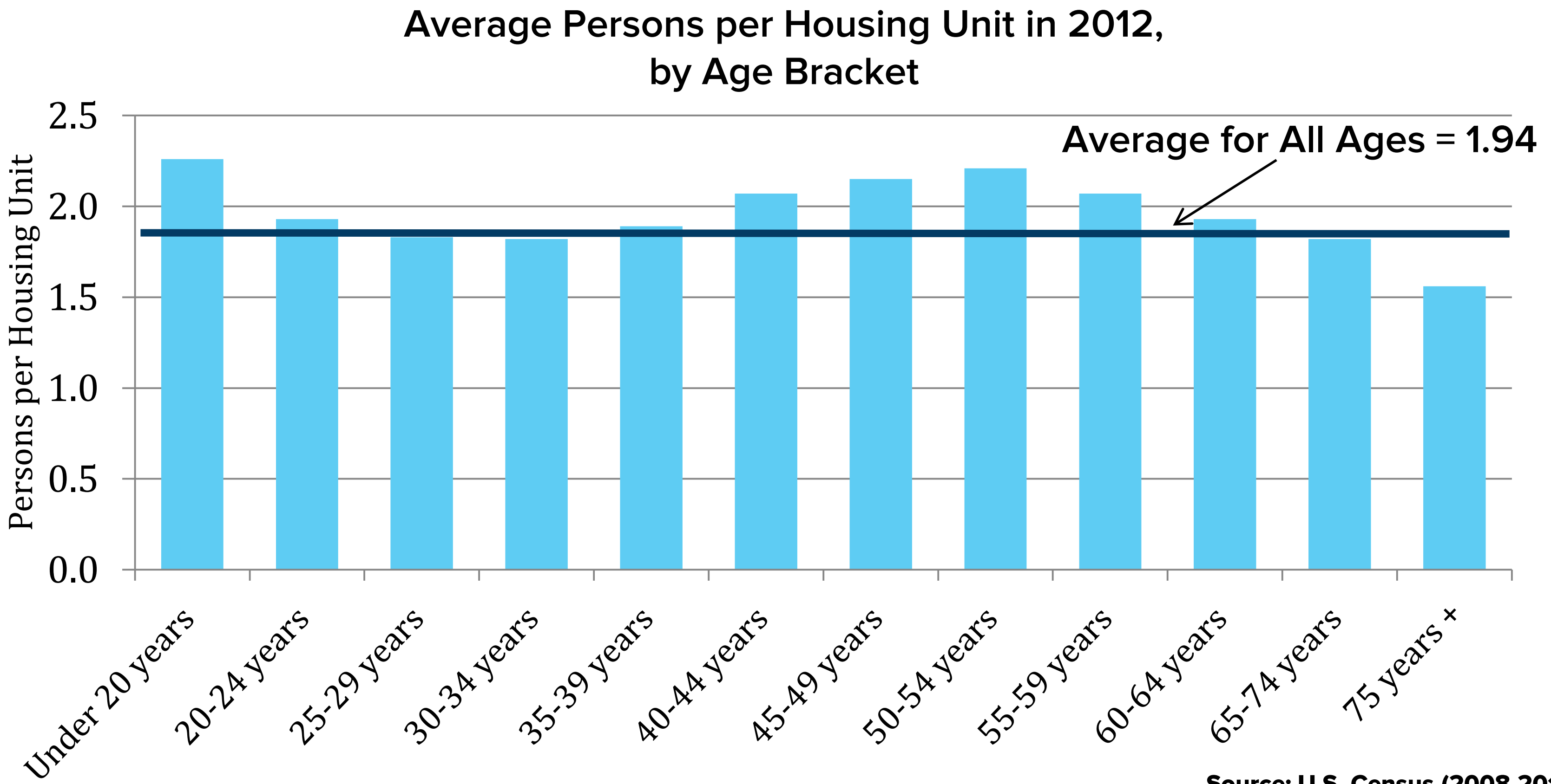
Source: U.S. Census (2008-2016)

... WHICH MEANS FEWER NEW HOMES



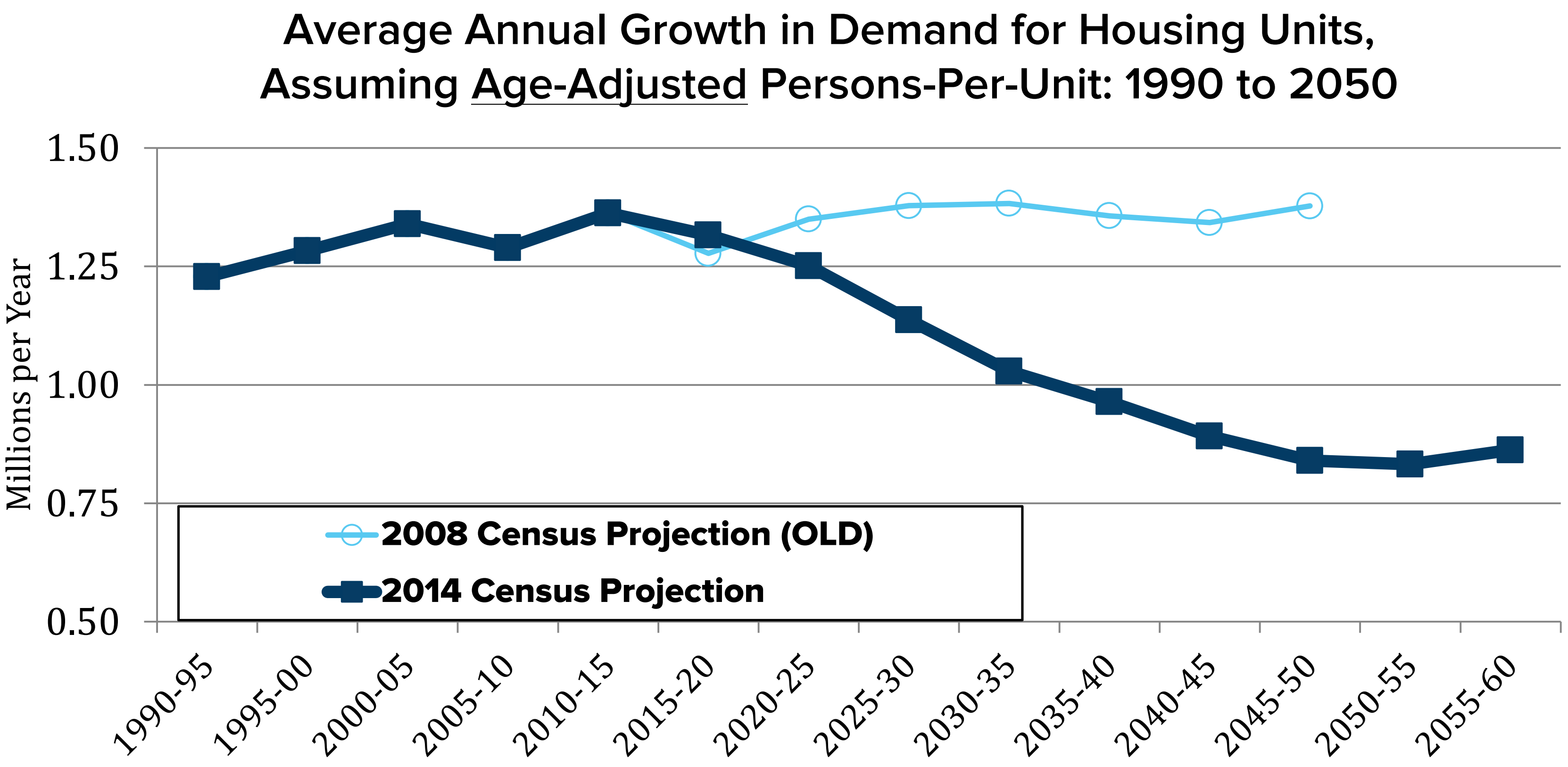
Source: U.S. Census (2008-2016)

AND IF WE ADJUST FOR THE SHIFTING AGE MIX...



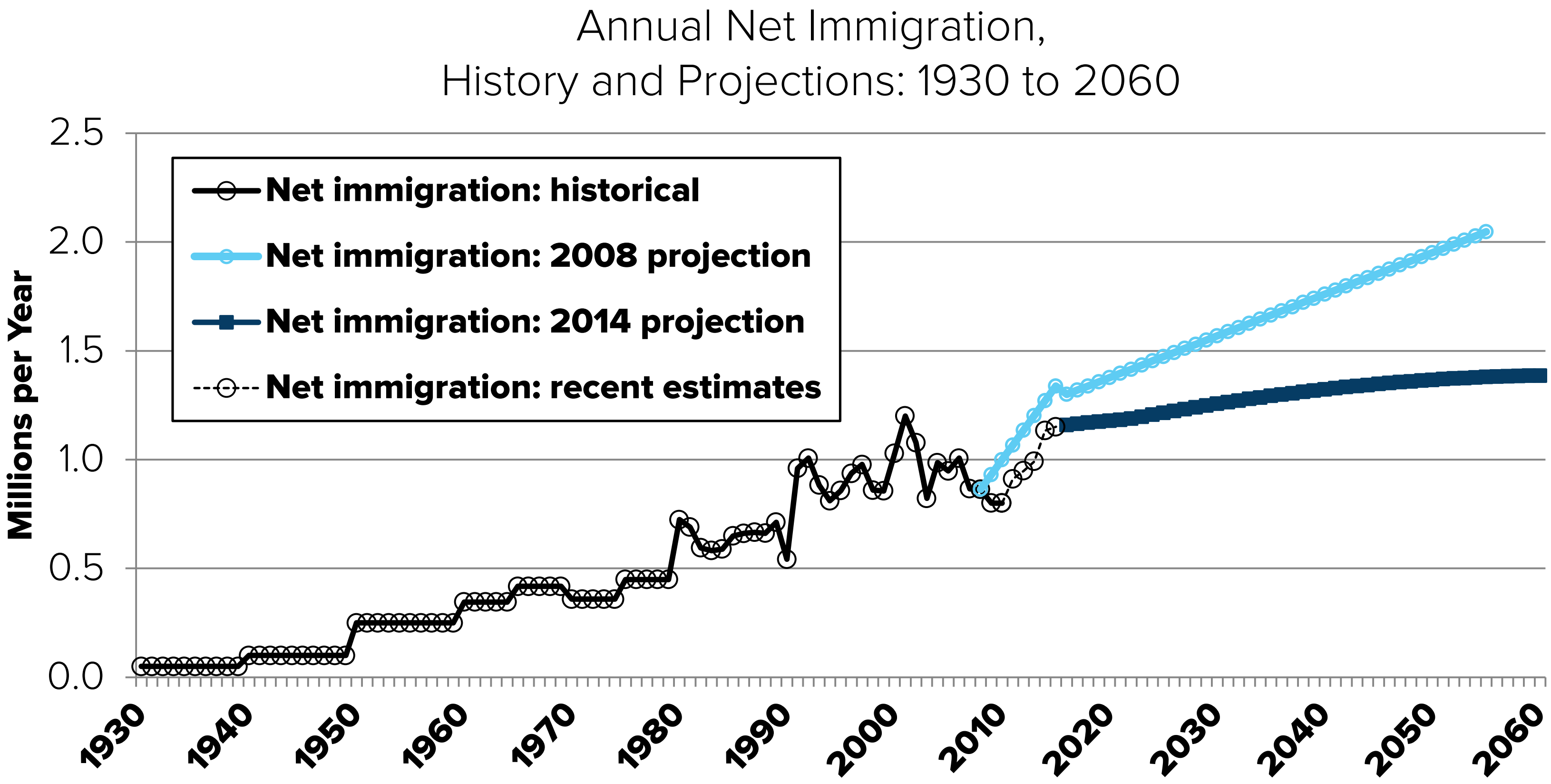
Source: U.S. Census (2008-2015)

... THE RESULT IS PRETTY MUCH THE SAME



Source: U.S. Census (2008-2016)

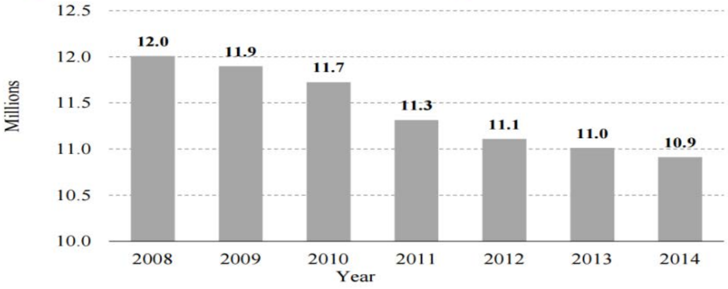
WHY EVERYTHING DEPENDS ON NET IMMIGRATION...



Source: U.S. Census (2008-2016)

… AND WHY IT MAY BE SMALLER THAN CENSUS ESTIMATES

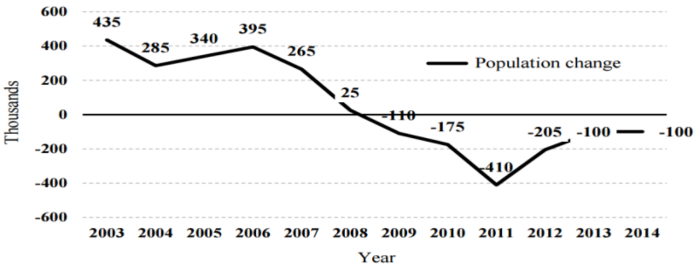
Figure 1. Total Undocumented Population: 2008 to 2014



Source: CMS 2016 analysis of ACS data (see text); Warren and Warren 2013.

According to reports from Pew Research Center (2014) and Center for Migration Studies (2016), recent official "inter-censal" estimates for net immigration may be *way too high*.

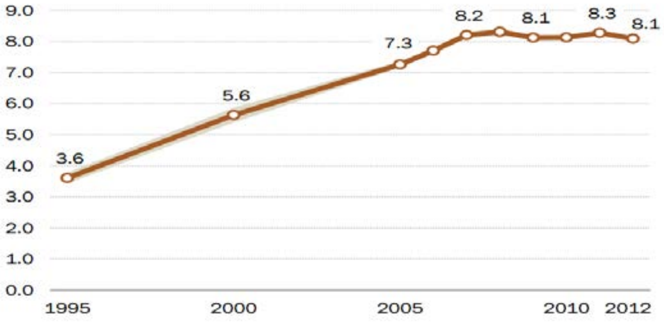
Figure 2. Annual Change in the Total Undocumented Population: 2003 to 2014



Source: CMS 2016 analysis of ACS data; Warren and Warren 2013.

Unauthorized Immigrants in the U.S. Labor Force, 1995-2012

In millions



Note: Shading surrounding line indicates high and low points of the estimated 90% confidence interval. Data labels are for 1995, 2000, 2005, 2007, 2009, 2011 and 2012. The 2009-2012 change is not statistically significant at 90% confidence interval.

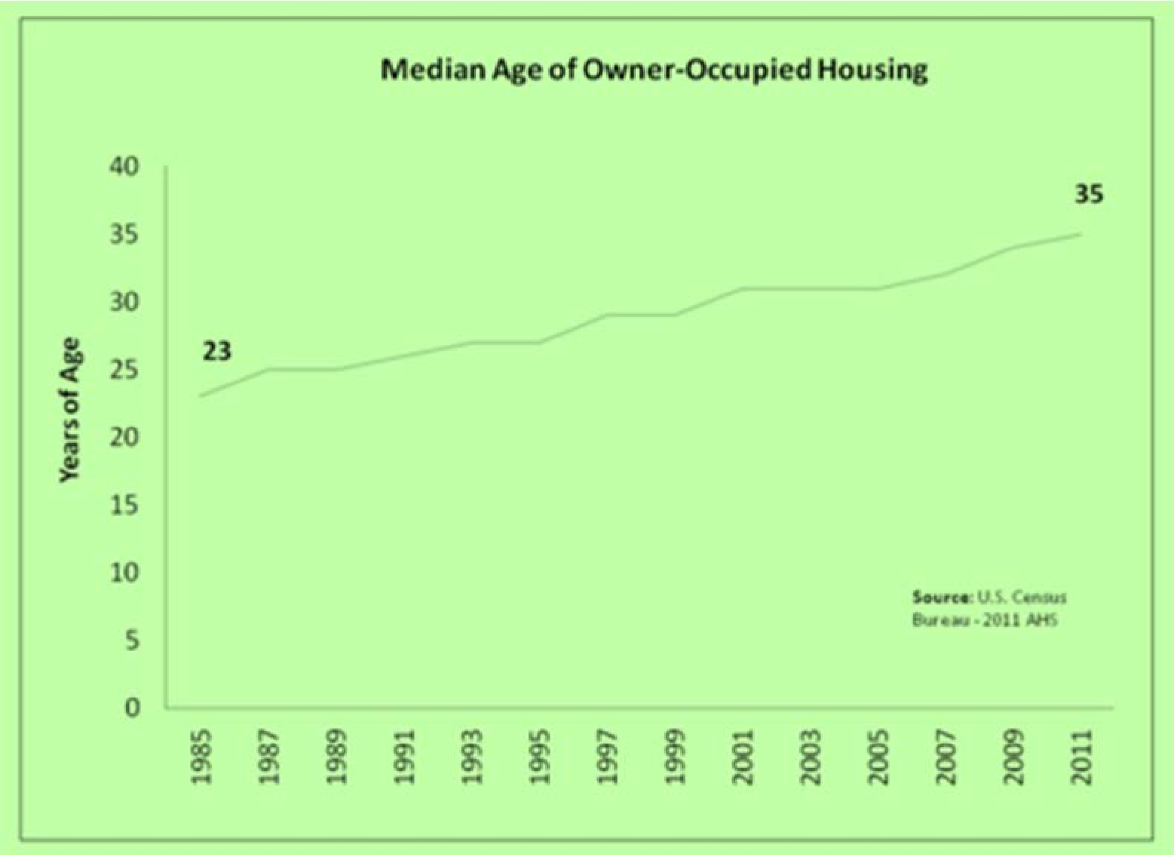
Source: Table A2, derived from Pew Research Center estimates for 2005-2012 based on augmented American Community Survey data from Integrated Public Use Microdata Series (IPUMS); for 1995 and 2000 based on March Supplements to Current Population Survey.

PEW RESEARCH CENTER

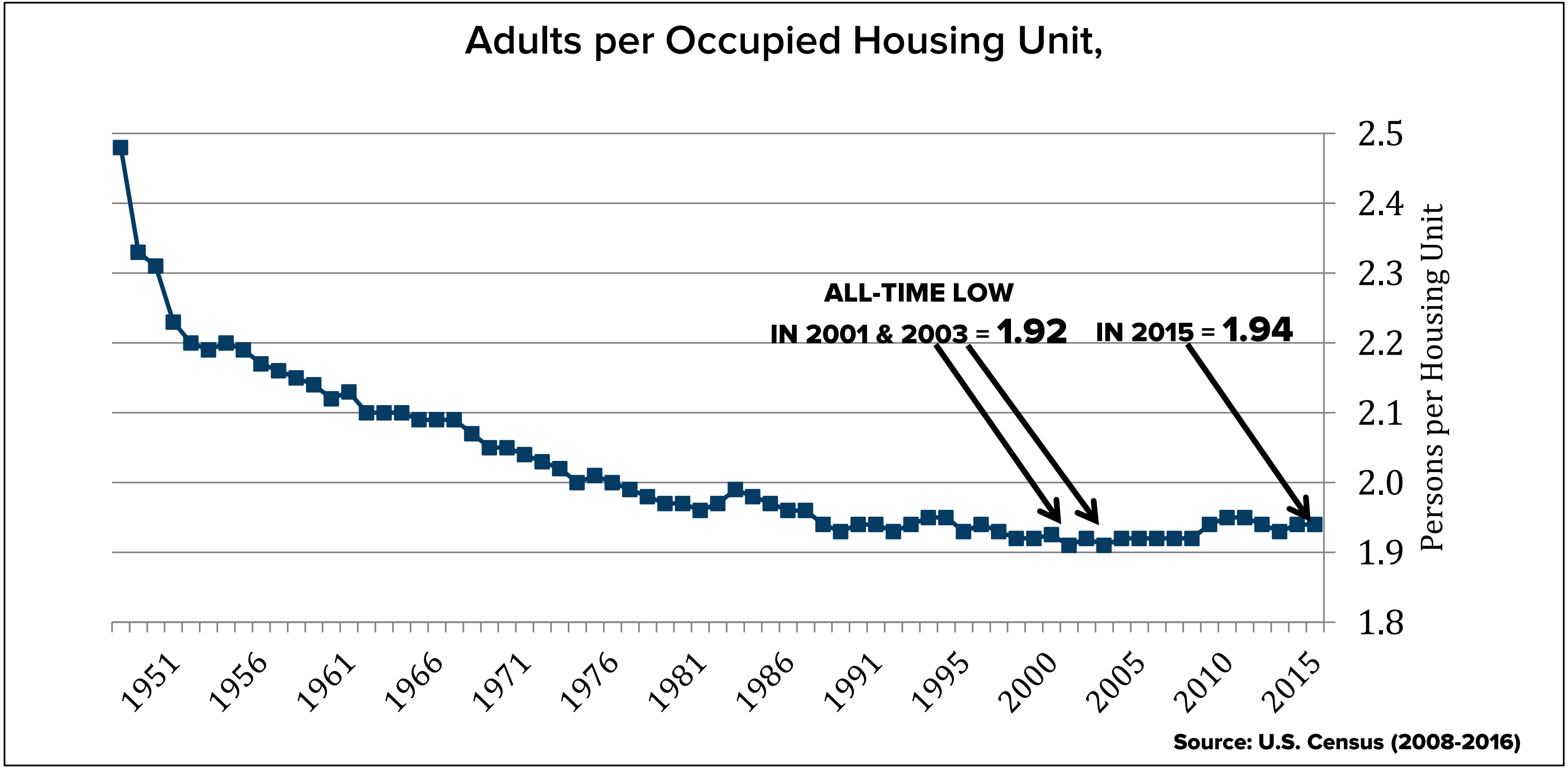
OTHER DRIVERS THAT MAY SUPPRESS DEMAND

- No new national infrastructure rebuilding on the horizon.
- Secular increase in housing stock longevity due to better construction methods. Result: Gradual decline in “net removal” rate (see chart).
- Possible long-term decline in home vacancy rates due to the sharing economy. Airbnb now offers over 1 million rooms or units nationwide.
- Possible long-term rise in average adults per unit. Average reached post-war low in 2001 and 2003 and is now rising again (see chart).

RISING AGE OF HOUSING STOCK



HOMES ARE AGAIN GROWING MORE CROWDED

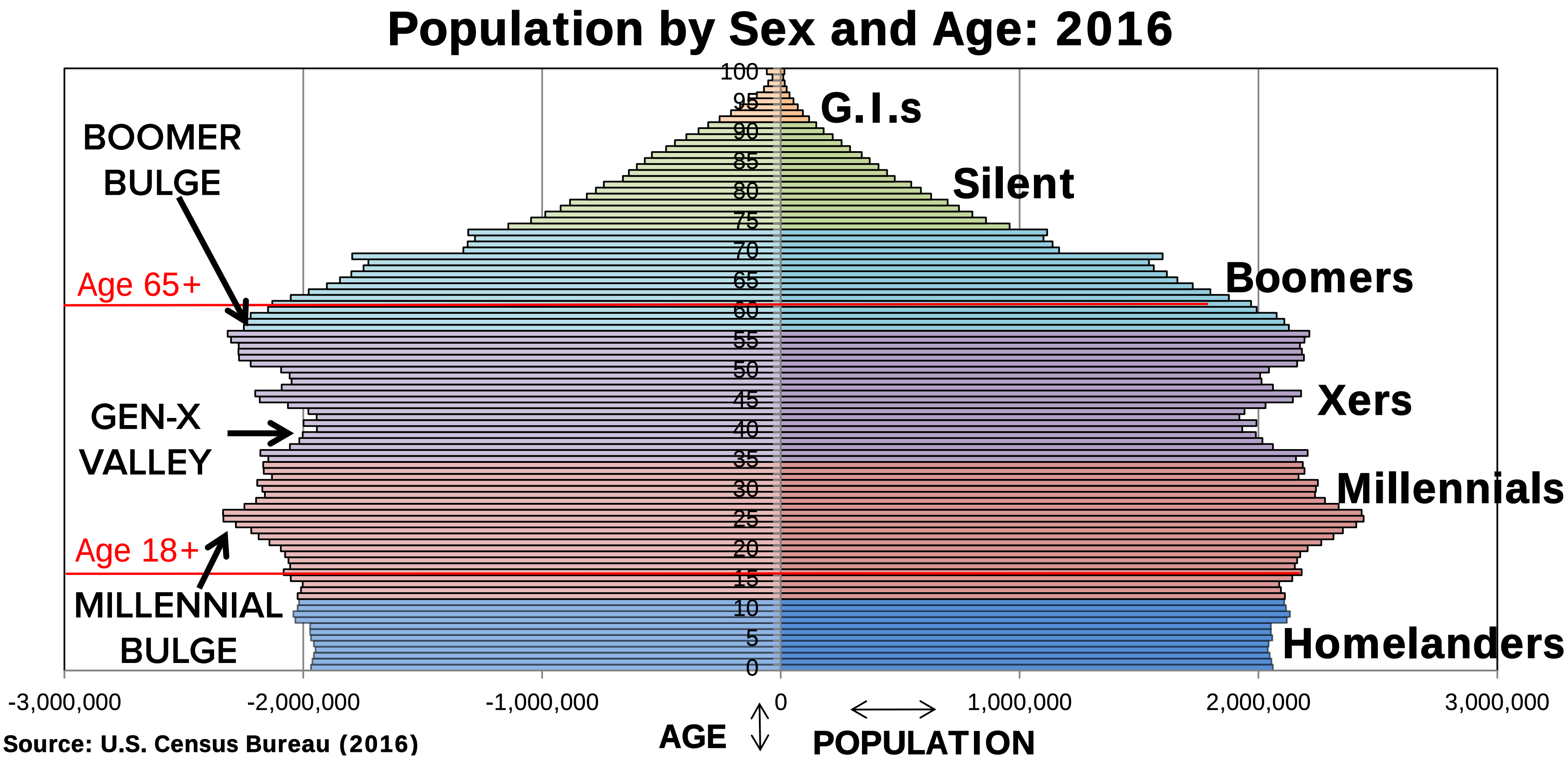


FAST FORWARD

10 YEARS

3. NEAR TERM AGE-BRACKET PROJECTIONS

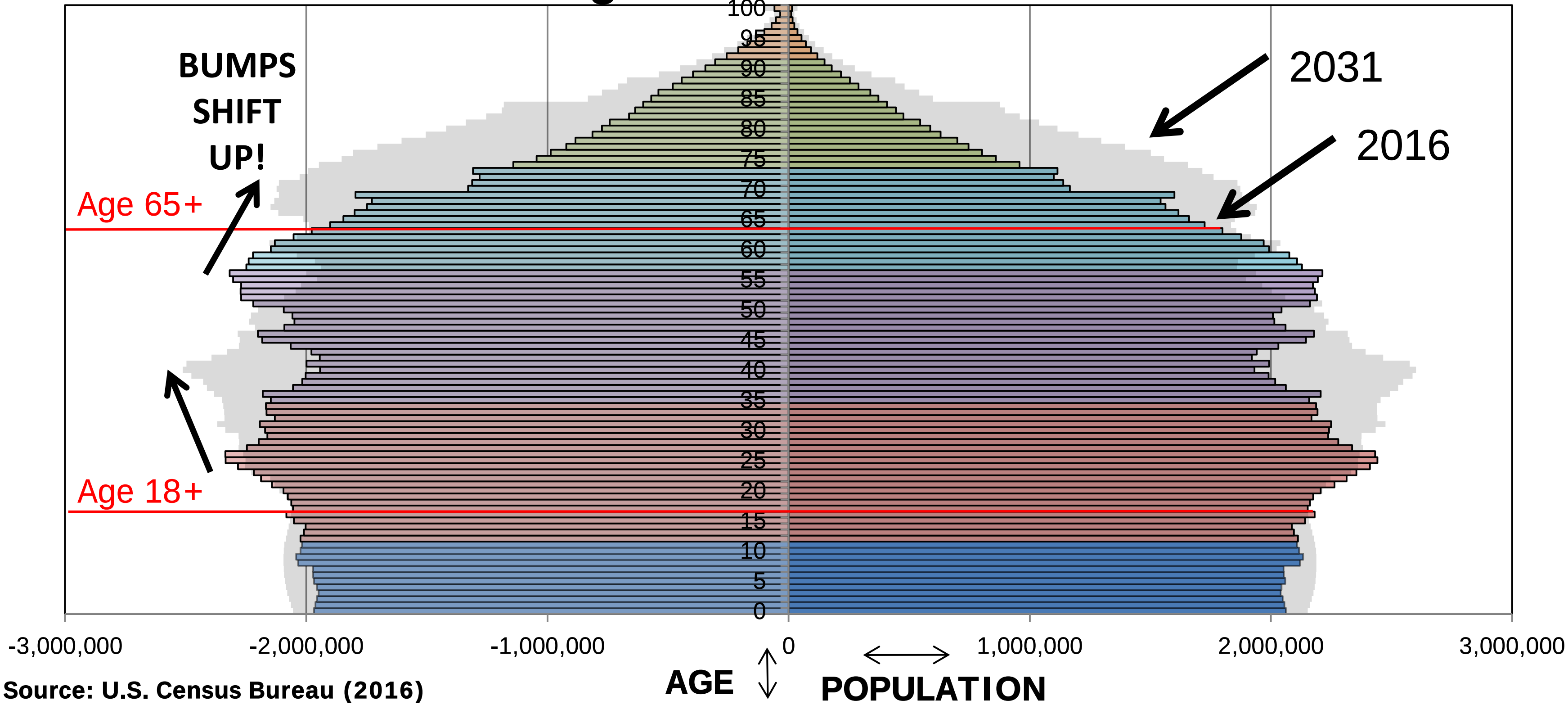
AMERICA'S POPULATION PYRAMID, TODAY



Source: U.S. Census Bureau (2016)

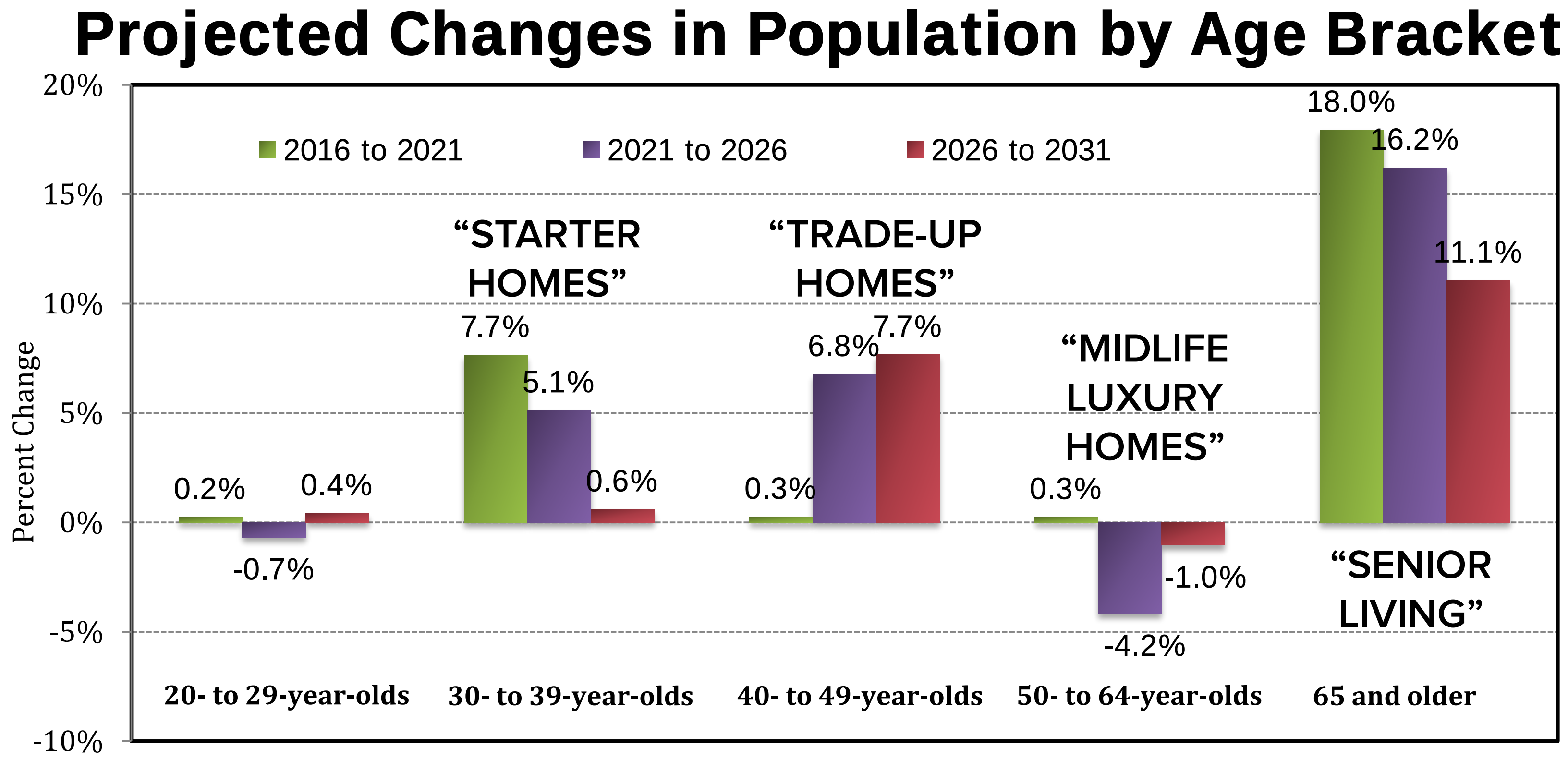
15 YEARS FROM NOW

Population Projections by Sex and Age: Change from 2016 to 2031



Source: U.S. Census Bureau (2016)

BOOM FOR STARTERS AND SENIORS, BUST FOR MIDLIFE



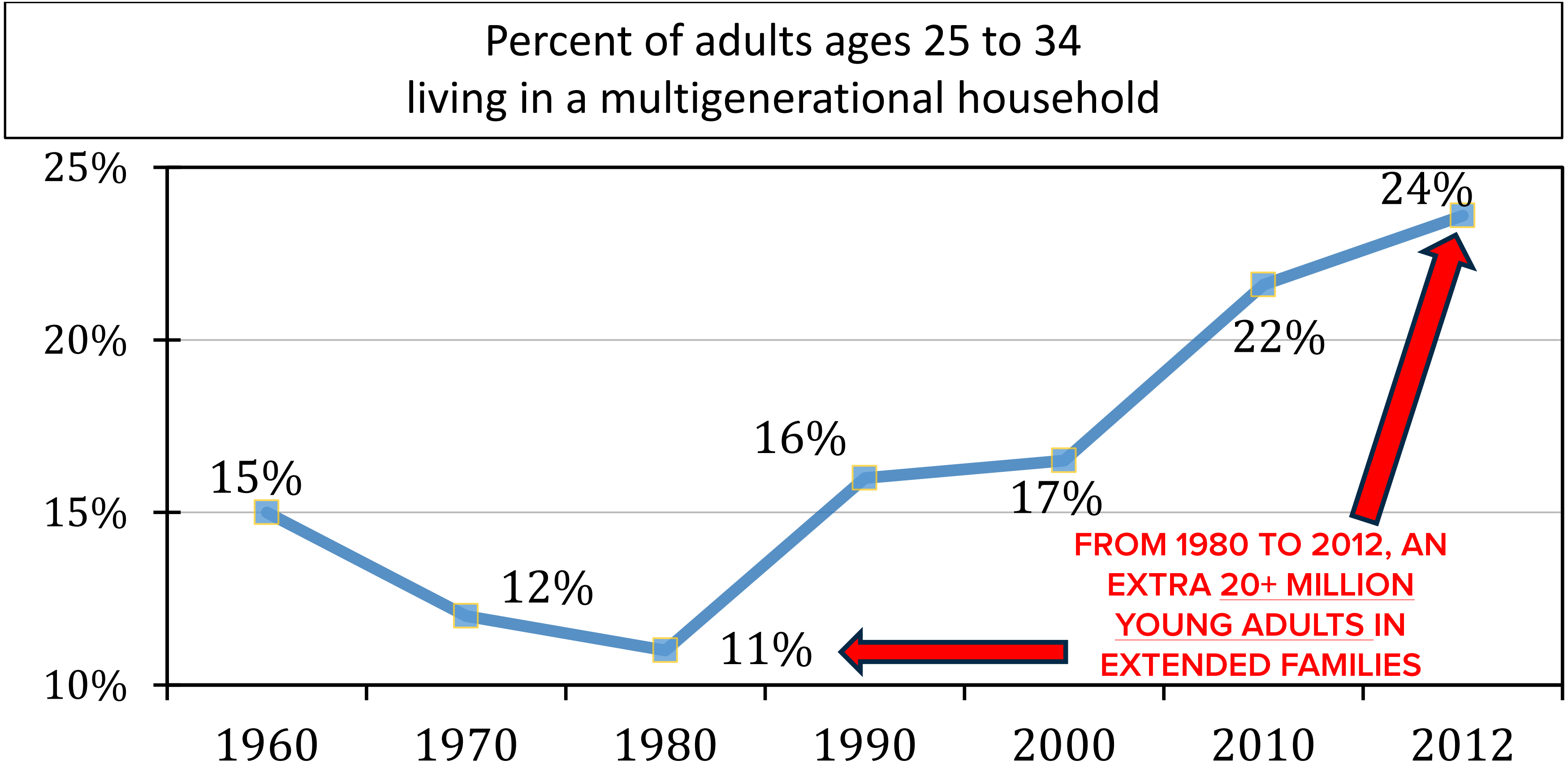
Source: U.S. Census Bureau (2016)

4. SEVEN DRIVERS RESHAPING THE INDUSTRY

SEVEN DRIVERS RESHAPING THE INDUSTRY

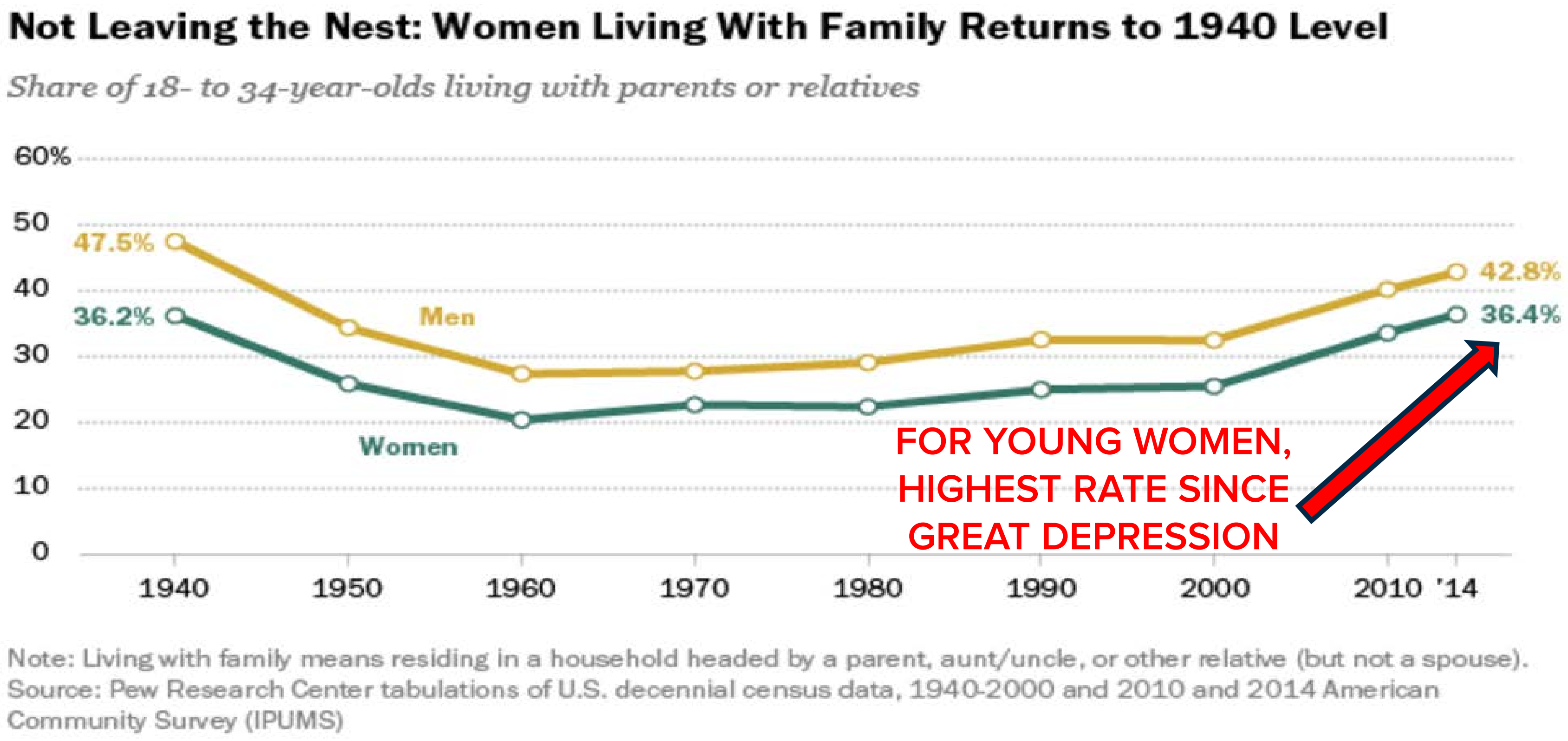
1) All age groups are fueling a renaissance in extended family living
2) Boomers thus far show a preference for aging in place
3) A "golden age of home improvement" booms on
4) Boomers are piling up more mortgage debt, Millennials less
5) Gen X small in number, and small in home spending power
6) Yes, Millennials are fueling the boom in core urban areas
7) Millennials & Xers are driving the switch from buying to renting

RENAISSANCE IN EXTENDED FAMILY LIVING



Source: Pew Research Center (2014)

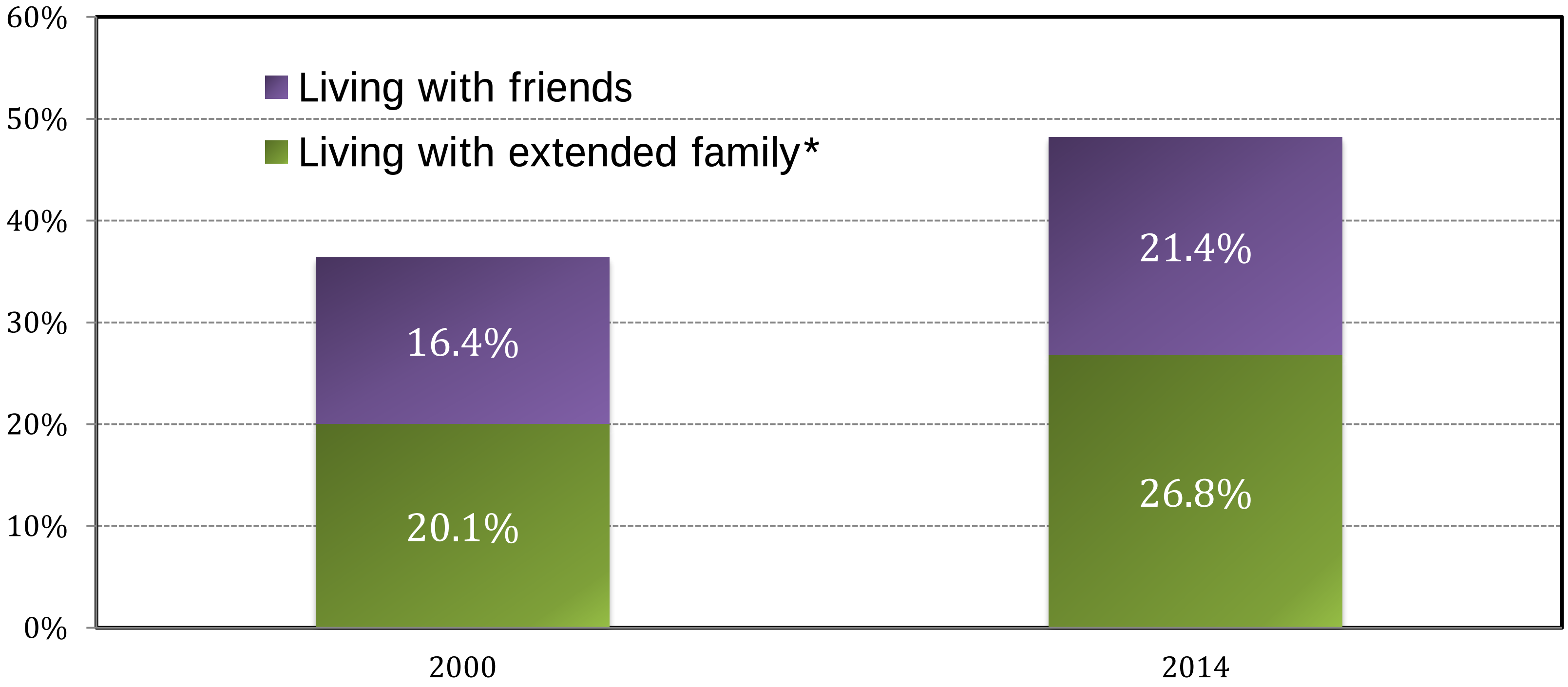
RENAISSANCE IN EXTENDED FAMILY LIVING



Source: Pew Research Center (2016)

RENAISSANCE IN EXTENDED FAMILY LIVING

Share of 25- to 29-Year-Olds Living with Friends or Extended Family (2000 vs. 2014)



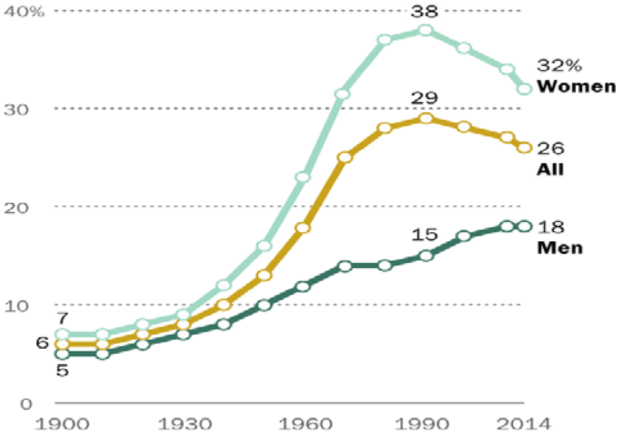
* Any relative excluding spouse or children

Source: U.S. Census Bureau (2015)

RENAISSANCE IN EXTENDED FAMILY LIVING

After rising for nearly a century, share of older women living alone is on decline

% of adults ages 65 and older living alone

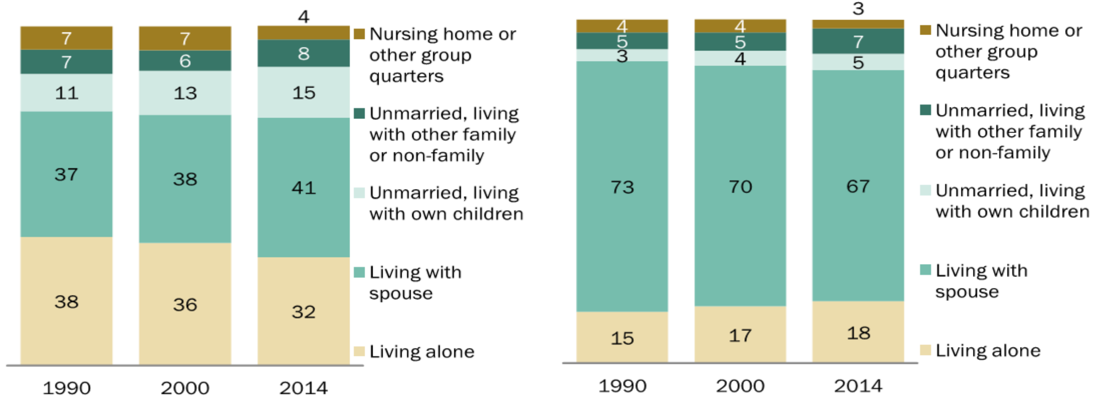


Note: Data labels are for 1900, 1990 and 2014. Older adults living alone reside in a household. The share living alone is based on the total population ages 65 and older.

Source: Pew Research Center analysis of 1900-2000 decennial censuses and 2010 and 2014 American Community Surveys (IPUMS)

Older women more likely to live with spouse or children than in 1990; older men less likely to live with a spouse, but more likely to live with children

*% among **women** ages 65 and older* | *% among **men** ages 65 and older*

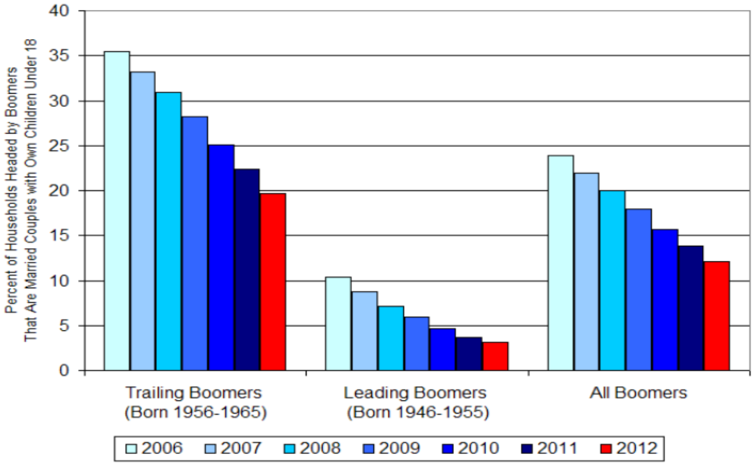


Note: Older adults who are living with a spouse may also be living with children or other relatives or non-relatives. Unmarried adults include those who are separated, divorced, widowed, have never been married or married, but the spouse is absent from the household. Older adults living alone reside in a household. The share living alone is based on the total population ages 65 and older.

Source: Pew Research Center (2016)

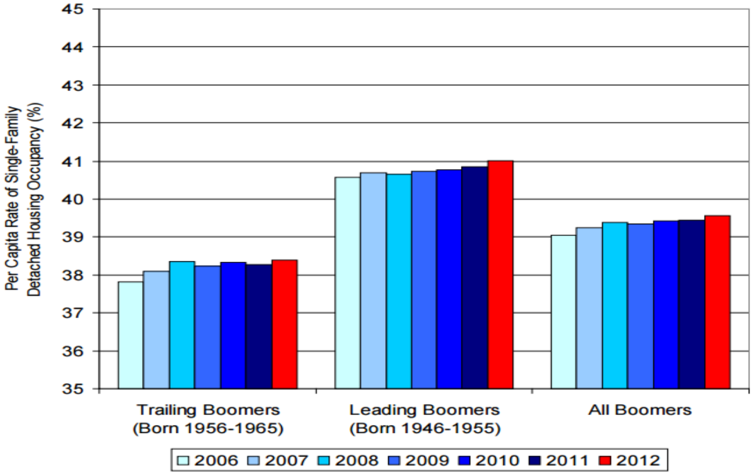
BOOMERS "AGING IN PLACE"

Exhibit 1. The Nuclear Family Household Has Become Much Less Common Among Boomers



Source: U.S. Census Bureau, American Community Survey Public Use Microdata Sample

Exhibit 2. So Far, Boomers Are Staying in Single-Family Detached Homes



Source: U.S. Census Bureau, American Community Survey Public Use Microdata Sample

BOOMERS' FAMILIES ARE GETTING SMALLER...

BUT THE SHARE LIVING IN SINGLE-FAMILY DETACHED HOMES IS UNCHANGED

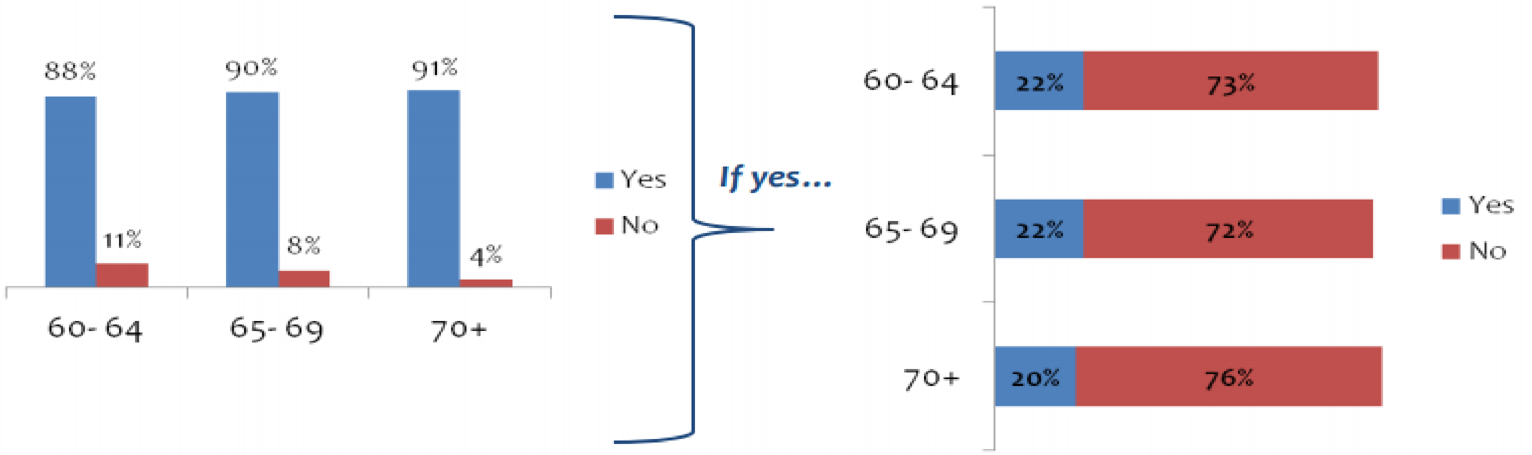
Source: AARP (2012)

BOOMERS "AGING IN PLACE"

- Close to nine in 10 older Americans intend to continue living in their current homes for the next five to 10 years

Do you intend to continue living in your current home for the next five to 10 years?

IF YES: Do you plan to make any modifications to your home to help you age in place? (N= 903)



Source: AARP (2012)

BOOMERS "AGING IN PLACE"

Ups and Downs in Home Size

While most Baby Boomers plan to stay where they are, a significant portion (37%) do have plans to move from their current home. The common wisdom is that Boomers will invariably downsize when they move, but, in actuality, many (46%) are looking for nicer homes and more space, not less. A significant number even plans to increase spending on housing.

Size & Cost of Next Home

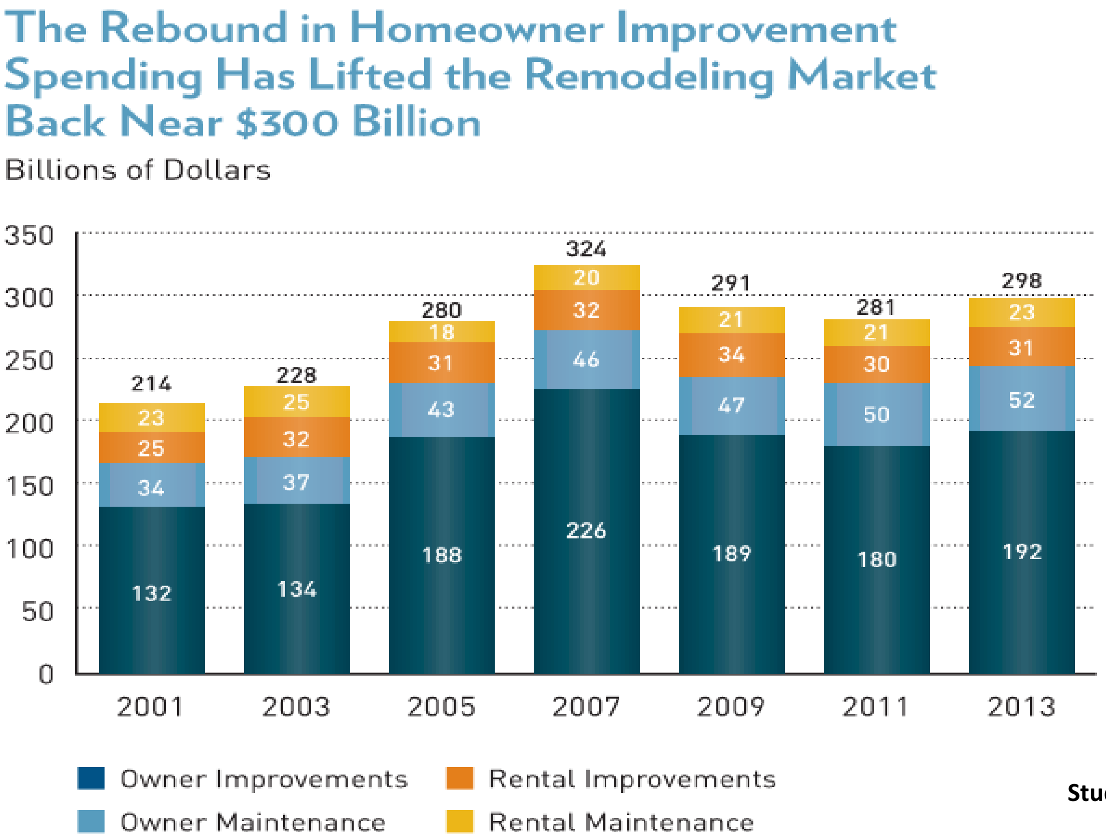
upsize · downsize

Cost of Next Home

Square Feet in Next Home	same or more	less	
more	26%	6%	32%
same	14%	12%	26%
less	8%	34%	42%
	48%	52%	

Source: The Demand Institute (2014)

GOLDEN AGE OF HOME REMODELING

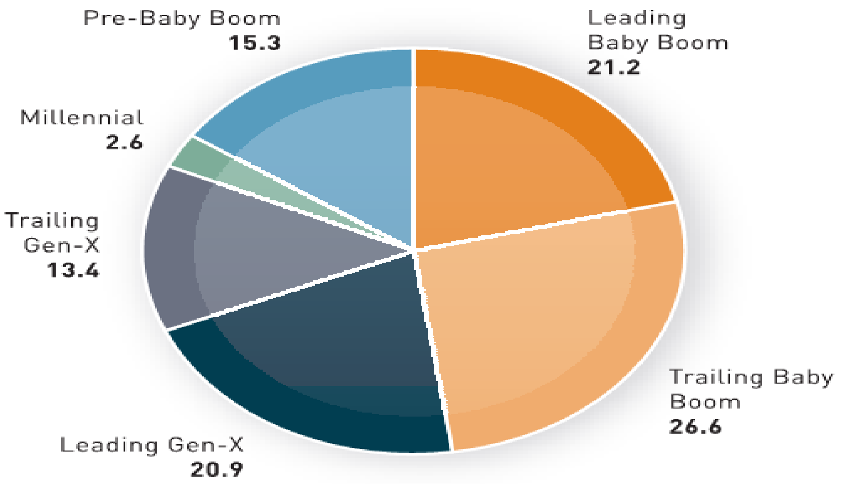


Source: Joint Center for Housing Studies at Harvard University (2015)

GOLDEN AGE OF HOME REMODELING

The Baby Boomers Continue to Dominate Spending, While Millennials Still Account for Only a Small Share of the Market

Share of Improvement Spending by Generation (Percent)



Homeowner Spending in 2013 = $192 Billion

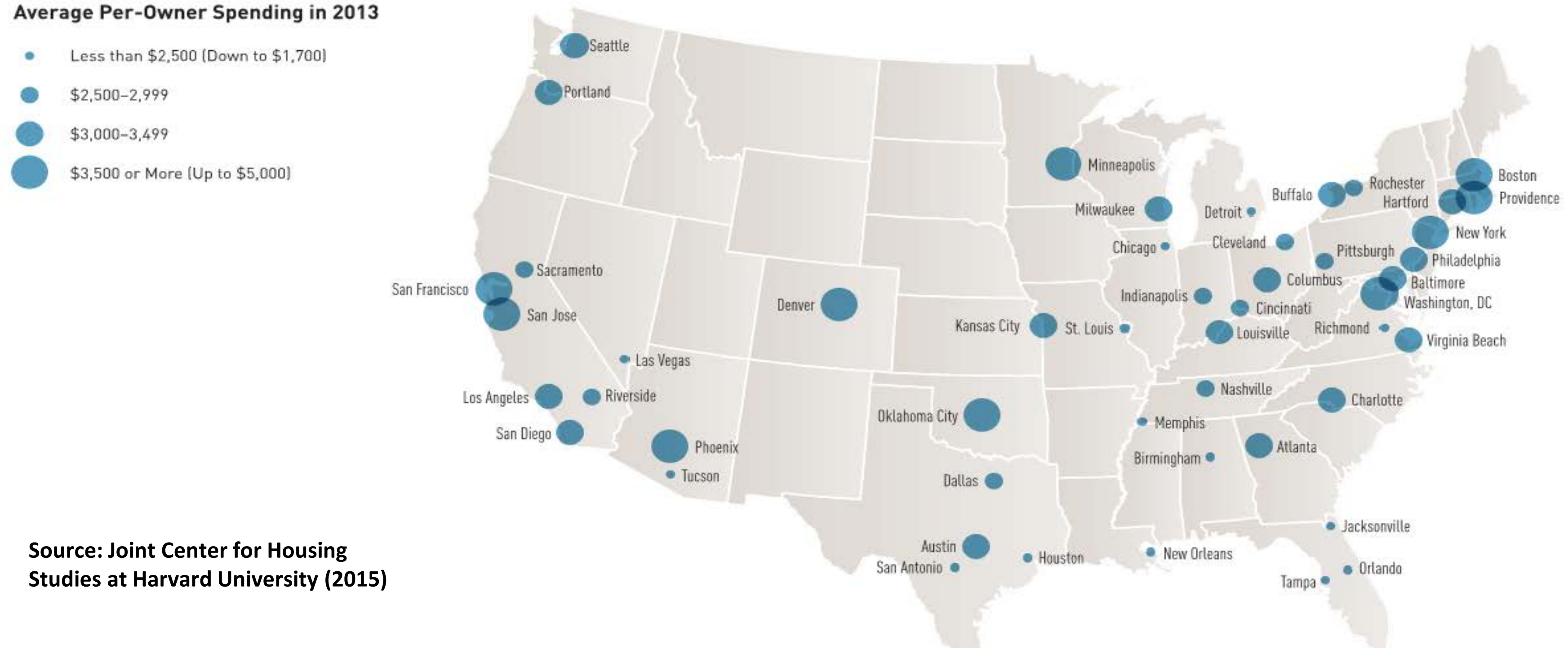
Notes: The pre-baby boom generation was born before 1945, leading baby boom in 1945–54, trailing baby boom in 1955–64, leading gen-X in 1965–74, trailing gen-X in 1975–84, and millennial in 1985–2004. Tabulations use JCHS-adjusted weights.

Source: Table A-3.

Source: Joint Center for Housing Studies at Harvard University (2015)

GOLDEN AGE OF HOME REMODELING

Owners in Coastal Metro Areas Generally Spend More on Improvements



Source: Joint Center for Housing Studies at Harvard University (2015)

GOLDEN AGE OF HOME REMODELING

THE WALL STREET JOURNAL.
WSJ.com

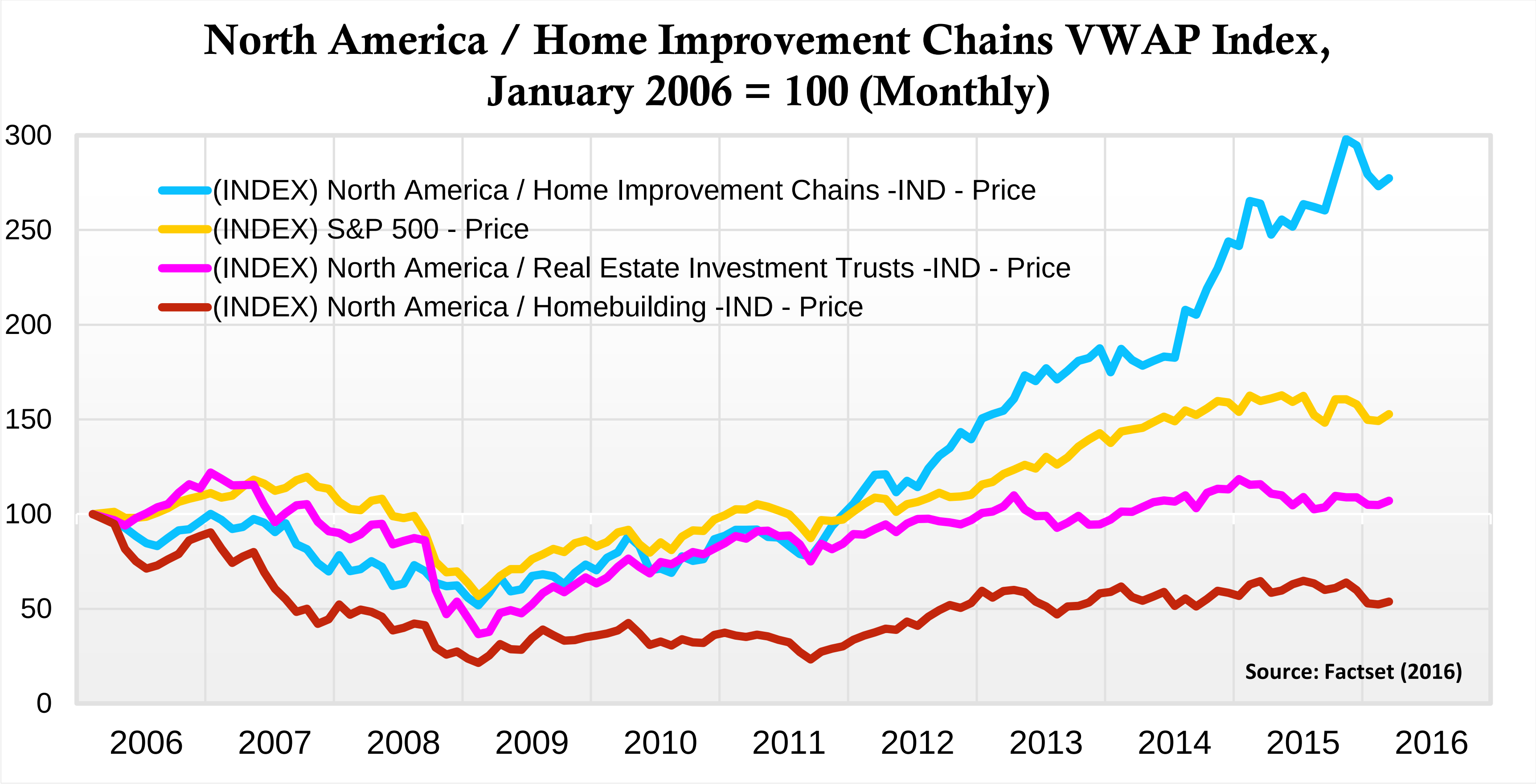
LIFE & CULTURE | Updated March 19, 2013, 10:01 p.m. ET

The Ultimate Play Room ... at Grandma's House

By ALINA DIZIK

Alina Dizik and interior designer Marlene Oliphant take a look at the fancy bedrooms and play spaces some couples are creating for their grandchildren. Photo: Pottery Barn Kids.

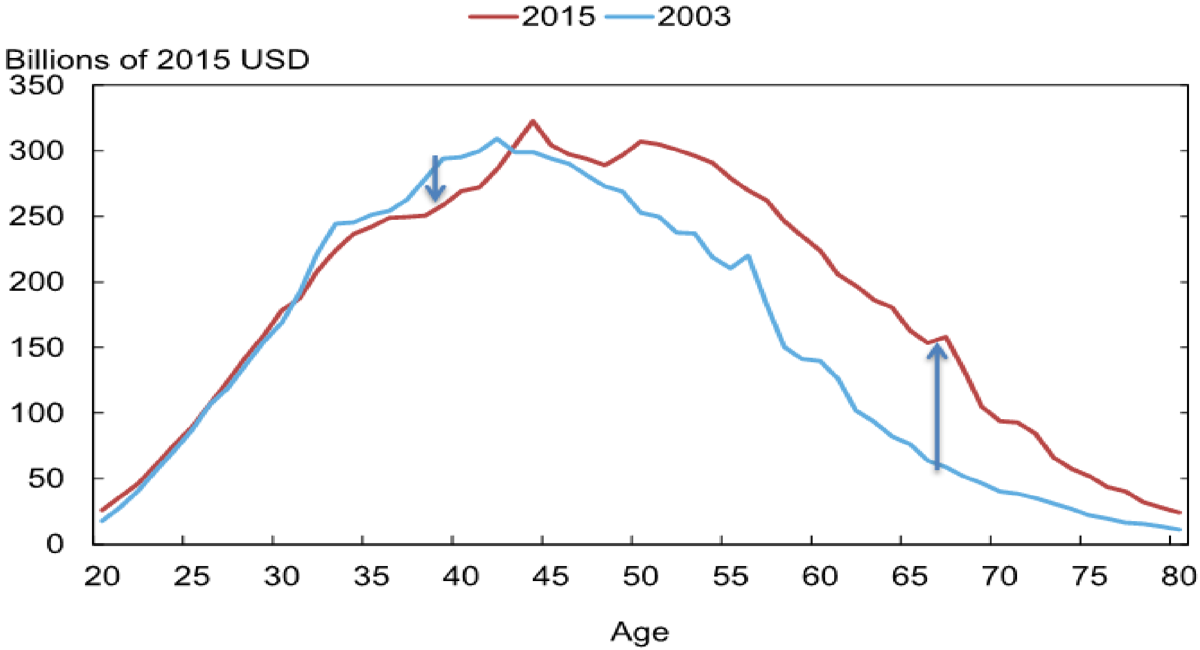
GOLDEN AGE OF HOME REMODELING



BOOMERS WITH MORE MORTGAGE DEBT, MILLENNIALS LESS

The Graying of American Debt

Age distribution of aggregate U.S. consumer debt, 2003 v. 2015

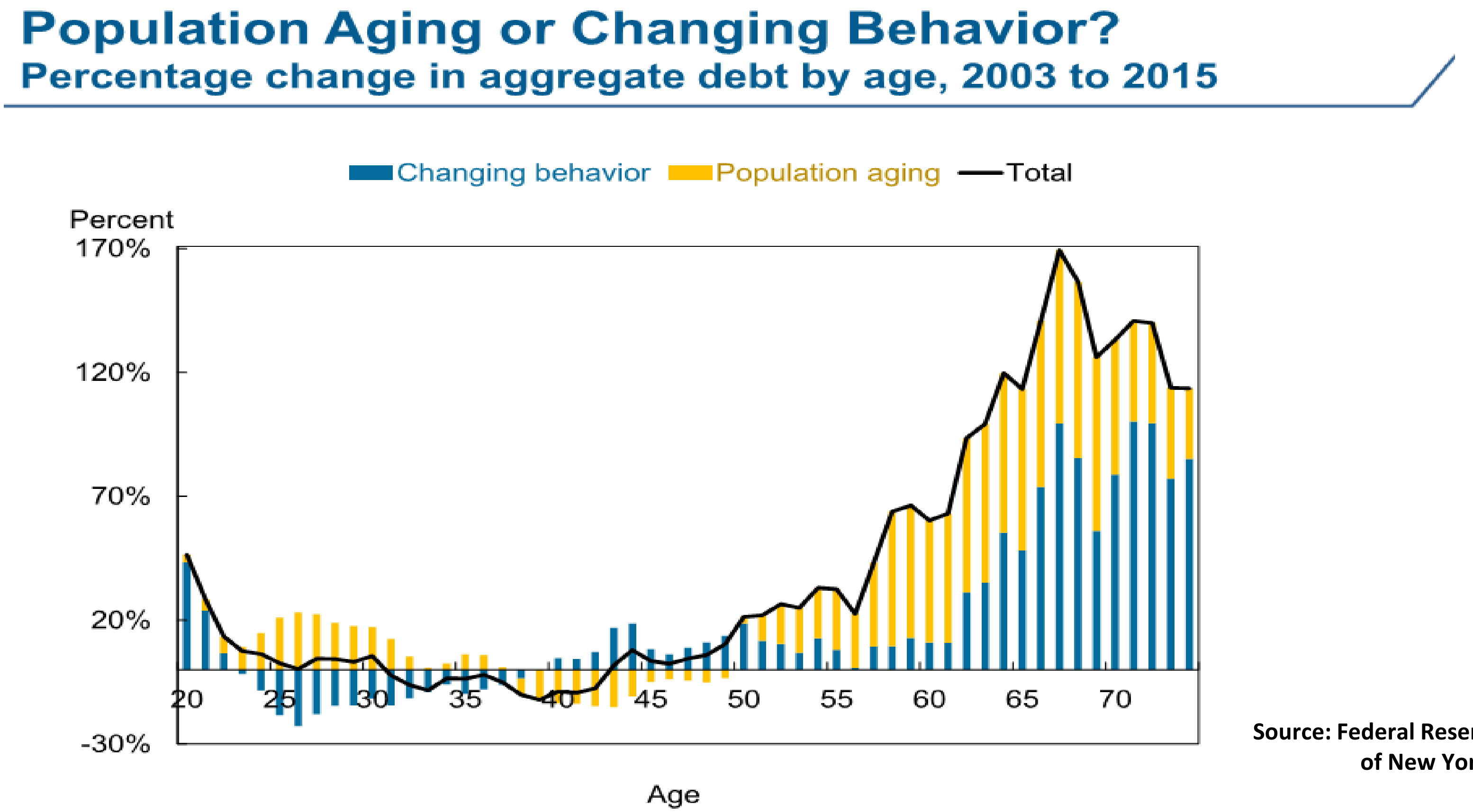


Age 39: aggregate debt fell by 12%

Age 67: aggregate debt grew by 169%

Source: Federal Reserve Bank of New York (2016)

BOOMERS WITH MORE MORTGAGE DEBT, MILLENNIALS LESS

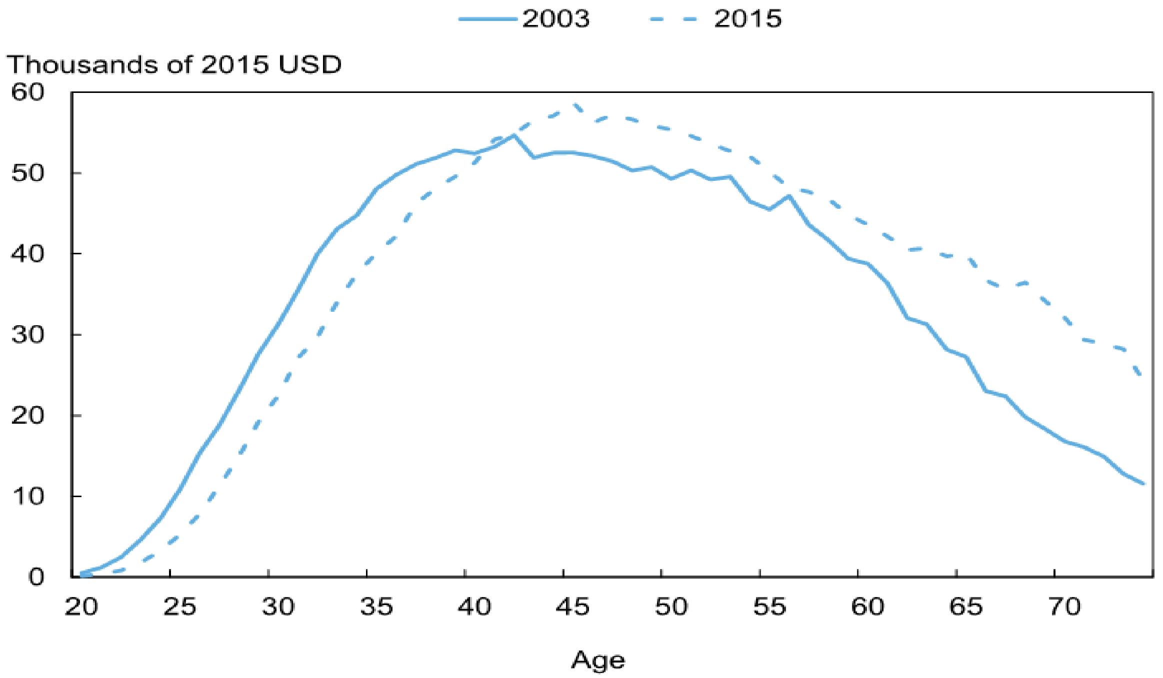


Source: Federal Reserve Bank of New York (2016)

BOOMERS WITH MORE MORTGAGE DEBT, MILLENNIALS LESS

Loan Types Over the Lifecycle: Home-secured debt

Mortgage + home equity debt balance per U.S. resident



Source: Federal Reserve Bank of New York (2016)

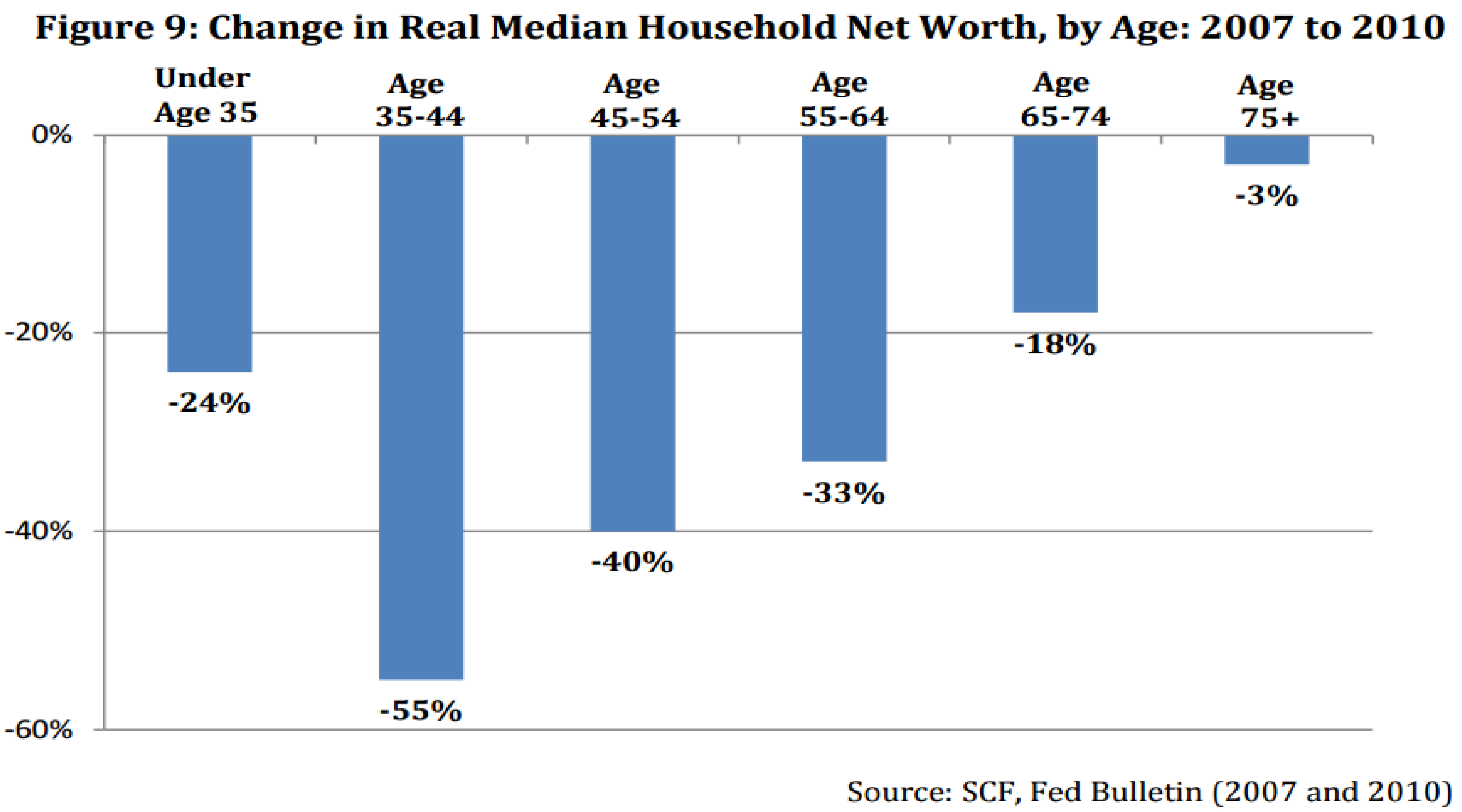
BOOMERS WITH MORE MORTGAGE DEBT, MILLENNIALS LESS

2003-2015 change in real per capita debt by type

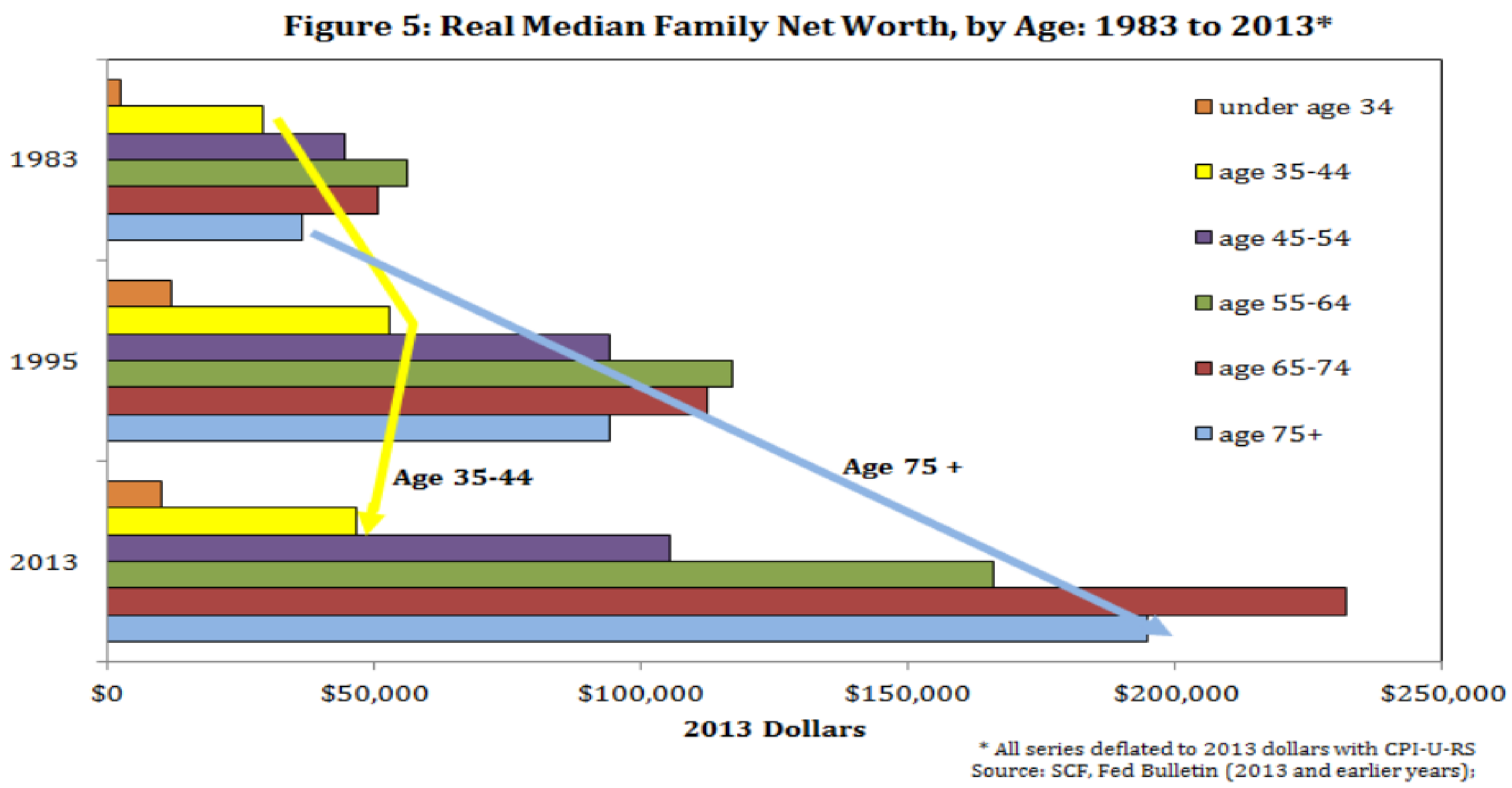
Debt type	Age 30 $	Age 30 %	Age 65 $	Age 65 %
Home-secured	-$8,195	-28%	+$11,191	+47%
Credit card	-$1,121	-36%	-$11	0%
Auto loan	-$292	-6%	+$1,102	+29%
Student loan	+$6,912	+174%	+$857	+886%

Source: Federal Reserve Bank of New York (2016)

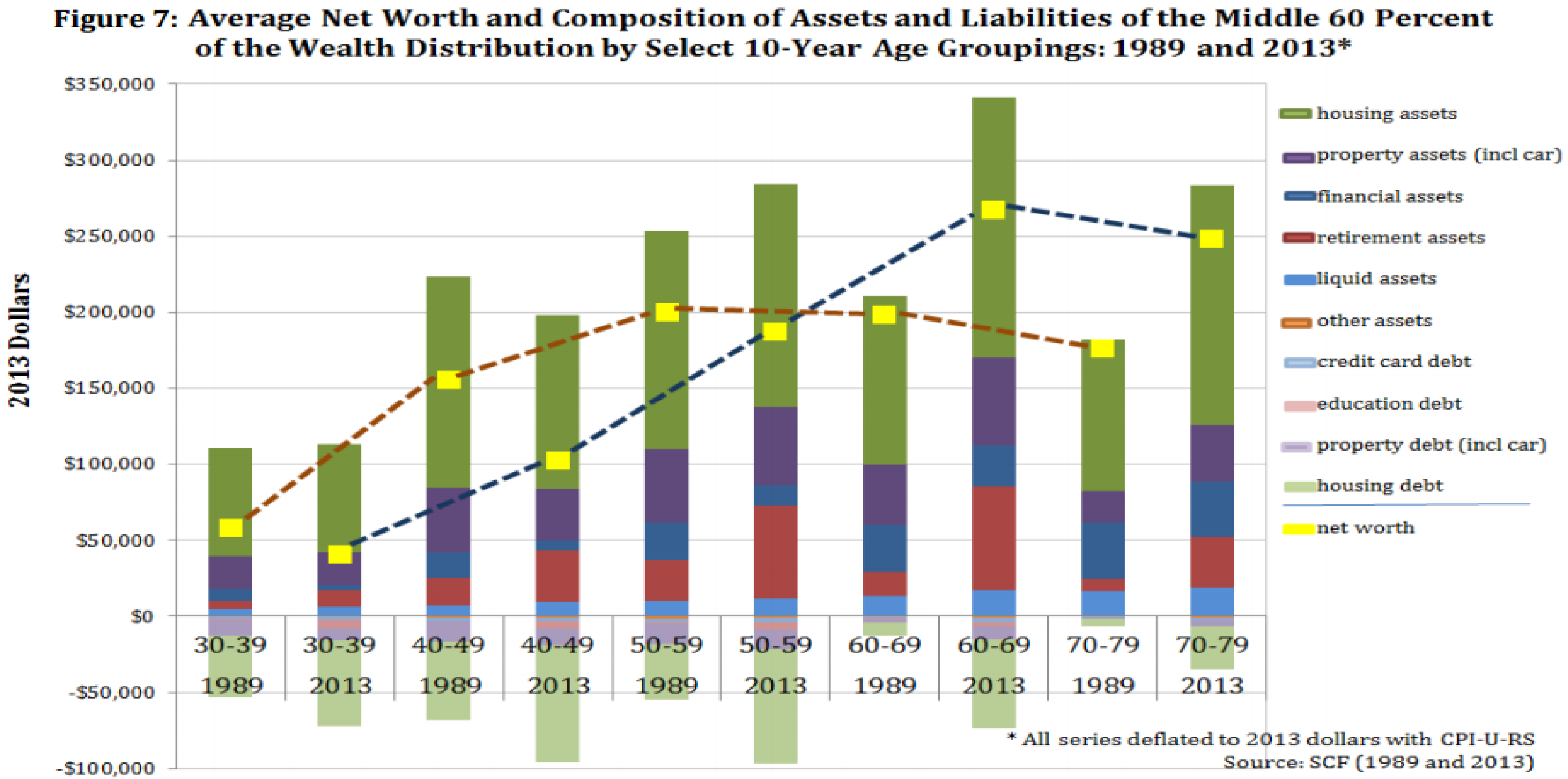
GEN X IN TROUBLE



GEN X IN TROUBLE

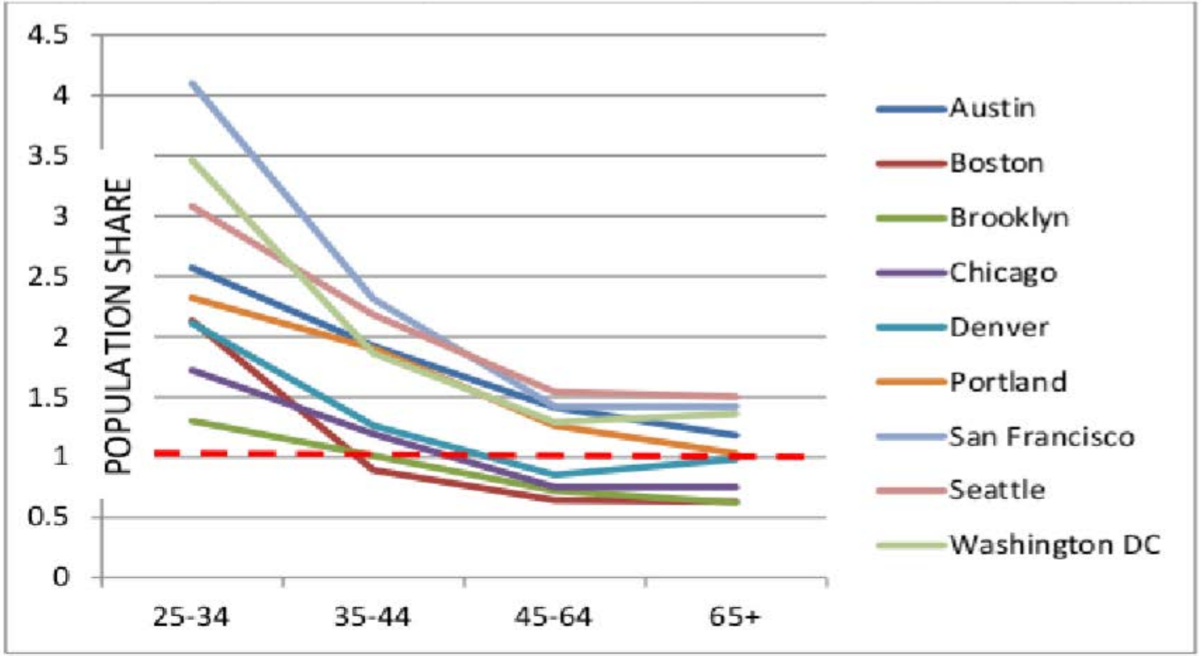


GEN X IN TROUBLE



MILLENNIALS FUELING BOOM IN CORE URBAN AREAS

FIGURE 1: OVER- AND UNDER-REPRESENTATION OF AGE GROUPS IN MAGNET CITIES

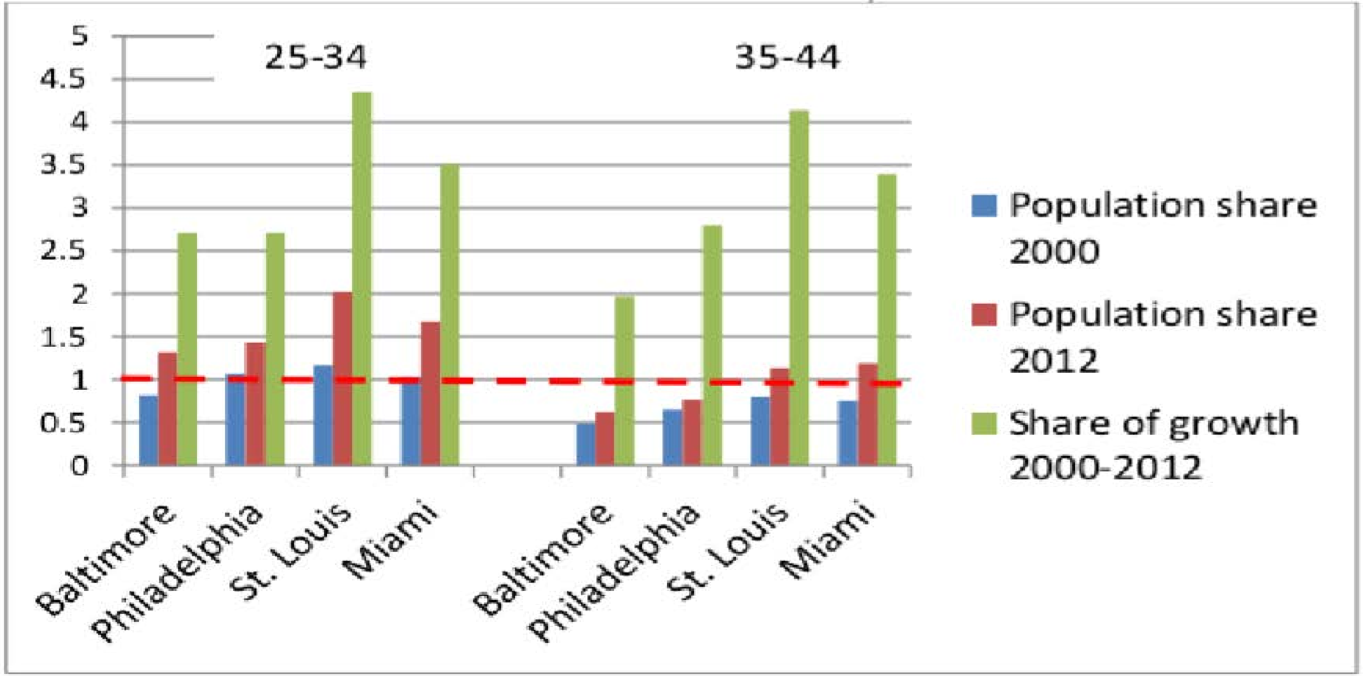


Age groups above the dotted red line are over-represented and below the dotted red line are under-represented in the city's population

Source: Center for Community Progress (2014)

MILLENNIALS FUELING BOOM IN CORE URBAN AREAS

FIGURE 2: CHANGING DEMOGRAPHIC TRAJECTORIES IN FOUR CITIES



Age groups above the dotted red line are over-represented and below the dotted red line are under-represented in the city's population

Source: Center for Community Progress (2014)

MILLENNIALS FUELING BOOM IN CORE URBAN AREAS

APPENDIX TABLE 1: DEMOGRAPHIC RATIOS FOR MAGNET CITIES

		Austin	Boston	Brooklyn	Chicago	Denver	Portland	San Francisco	Seattle	Washington DC
25-34	Share 2012	2.57	2.13	1.30	1.72	2.11	2.32	4.10	3.08	3.46
	Share 2000	2.53	1.81	0.94	1.33	1.54	1.95	3.53	2.91	2.31
	Growth share	2.83	5.15	2.64	2.65	4.31	3.48	9.27	3.29	8.09
35-44	Share 2012	1.92	0.89	1.01	1.19	1.26	1.90	2.31	2.18	1.86
	Share 2000	1.65	0.81	0.75	0.84	0.91	1.41	1.85	1.84	1.39
	Growth share (see note)	3.31	GAIN	GAIN	3.58	3.34	3.44	5.41	4.34	5.68
45-64	Share 2012	1.41	0.64	0.72	0.75	0.85	1.26	1.42	1.54	1.29
	Share 2000	1.4	0.68	0.69	0.73	0.91	0.86	1.46	1.50	1.46
	Growth share	1.49	0.58	0.81	0.61	0.64	1.13	1.13	1.52	0.88
65+	Share 2012	1.18	0.63	0.62	0.75	0.98	1.03	1.42	1.50	1.36
	Share 2000	1.18	0.68	0.62	0.79	1.25	1.01	1.48	1.45	1.56
	Growth share	1.21	0.60	0.63	0.60	0.71	1.01	1.24	1.49	1.09

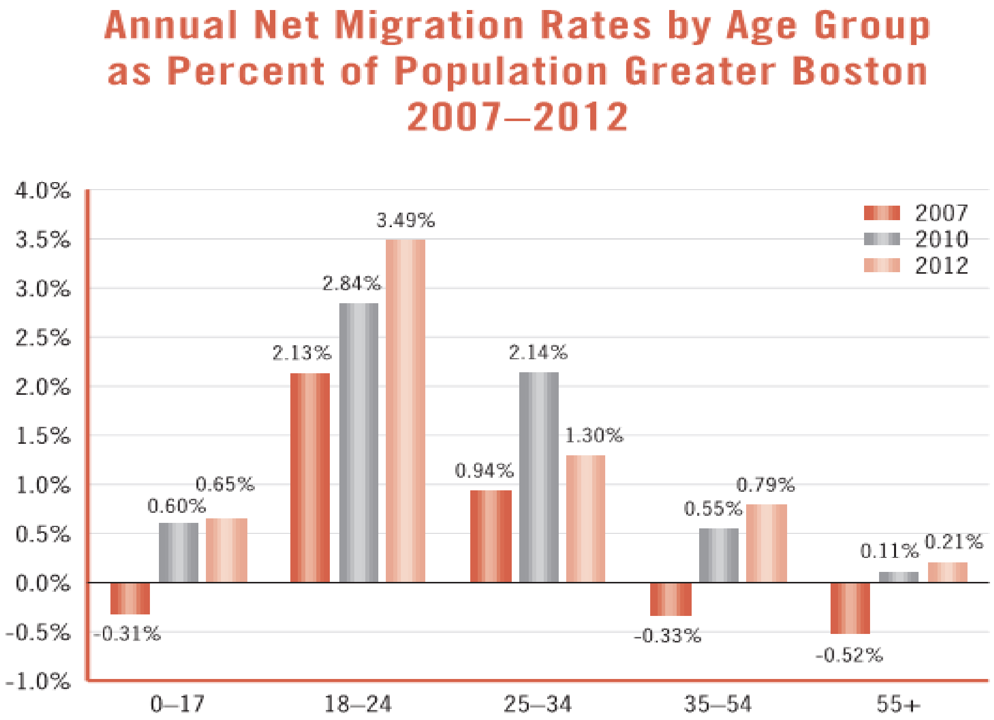
KEY TO COLORS

- Absolute Loss
- <0.75
- 0.75-1.24
- 1.25-1.99
- 2+

NOTE: both Massachusetts and New York State lost college-educated 35-44 year olds between 2000 and 2012, while Boston gained slightly and Brooklyn gained substantially in this demographic. For this reason, it is impossible to calculate a ratio, and the growth share is simply shown as 'gain'

Source: Center for Community Progress (2014)

MILLENNIALS FUELING BOOM IN CORE URBAN AREAS

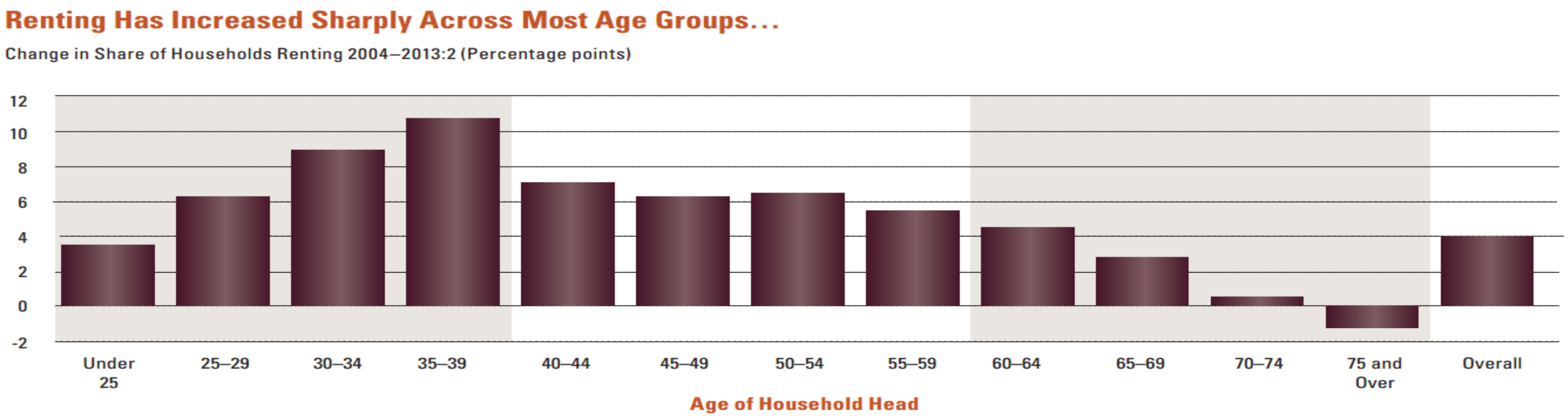


Source: 3-Year samples of the American Community Survey: 2005–2007, 2008–10, and 2010–12.

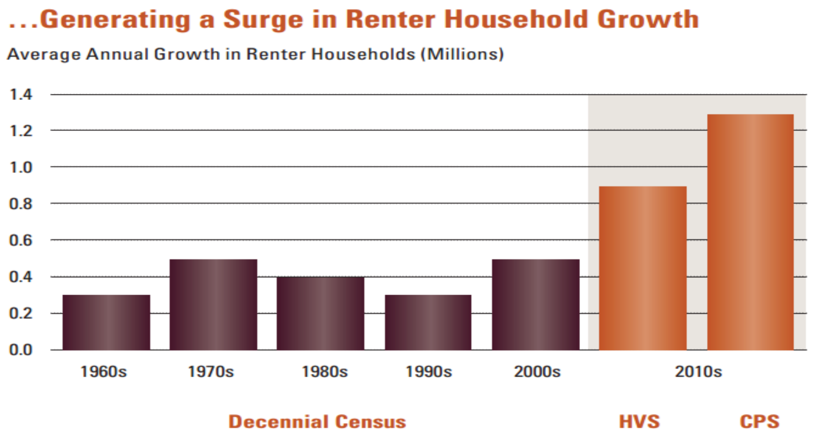
Note: Net migrant share of population is calculated by dividing the number of net migrants in a specific age group in year t by the population of the age group in year t-1.

Source: The Boston Foundation (2014)

MILLENNIALS & XERS, FROM BUYING TO RENTING

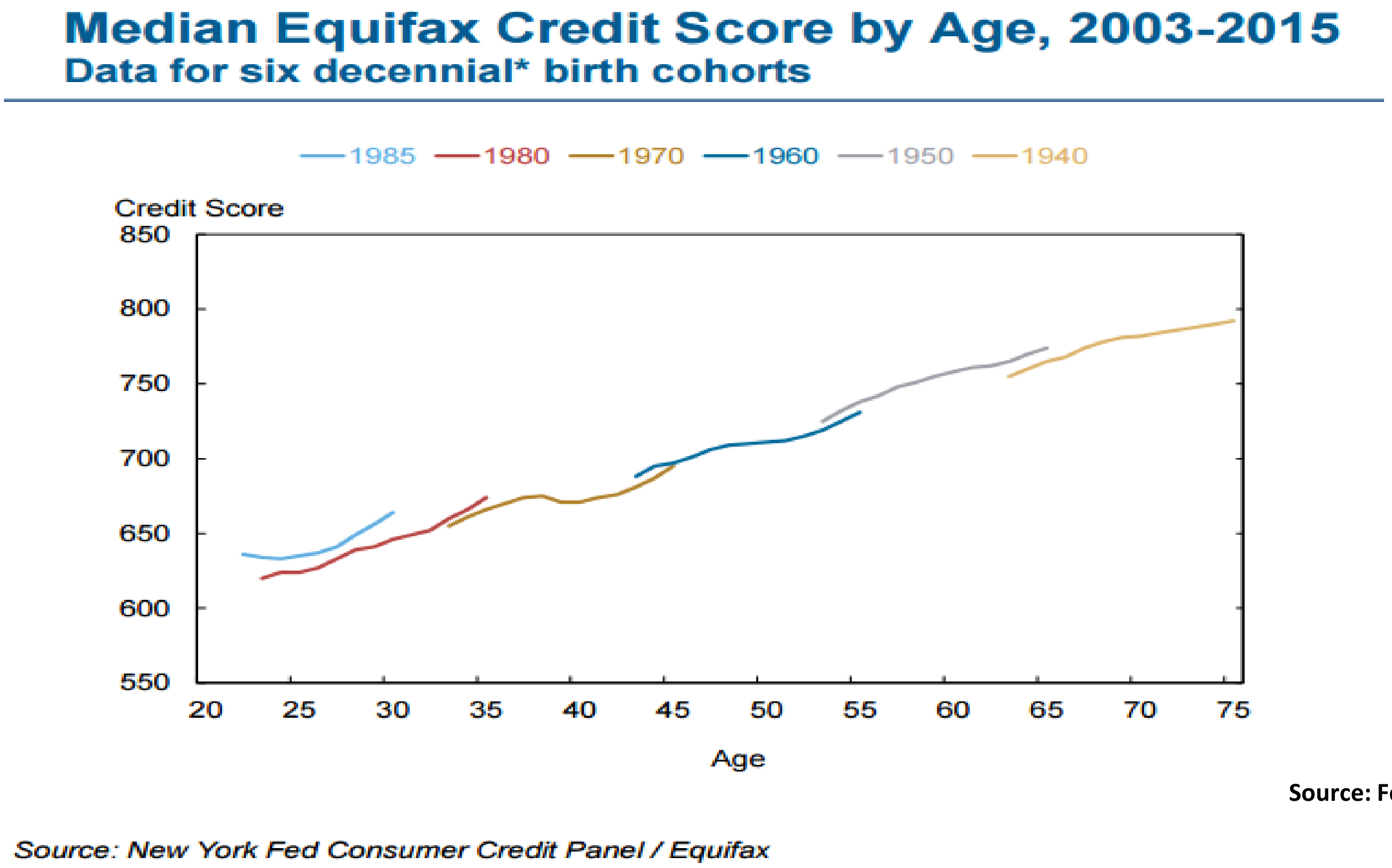


Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys.



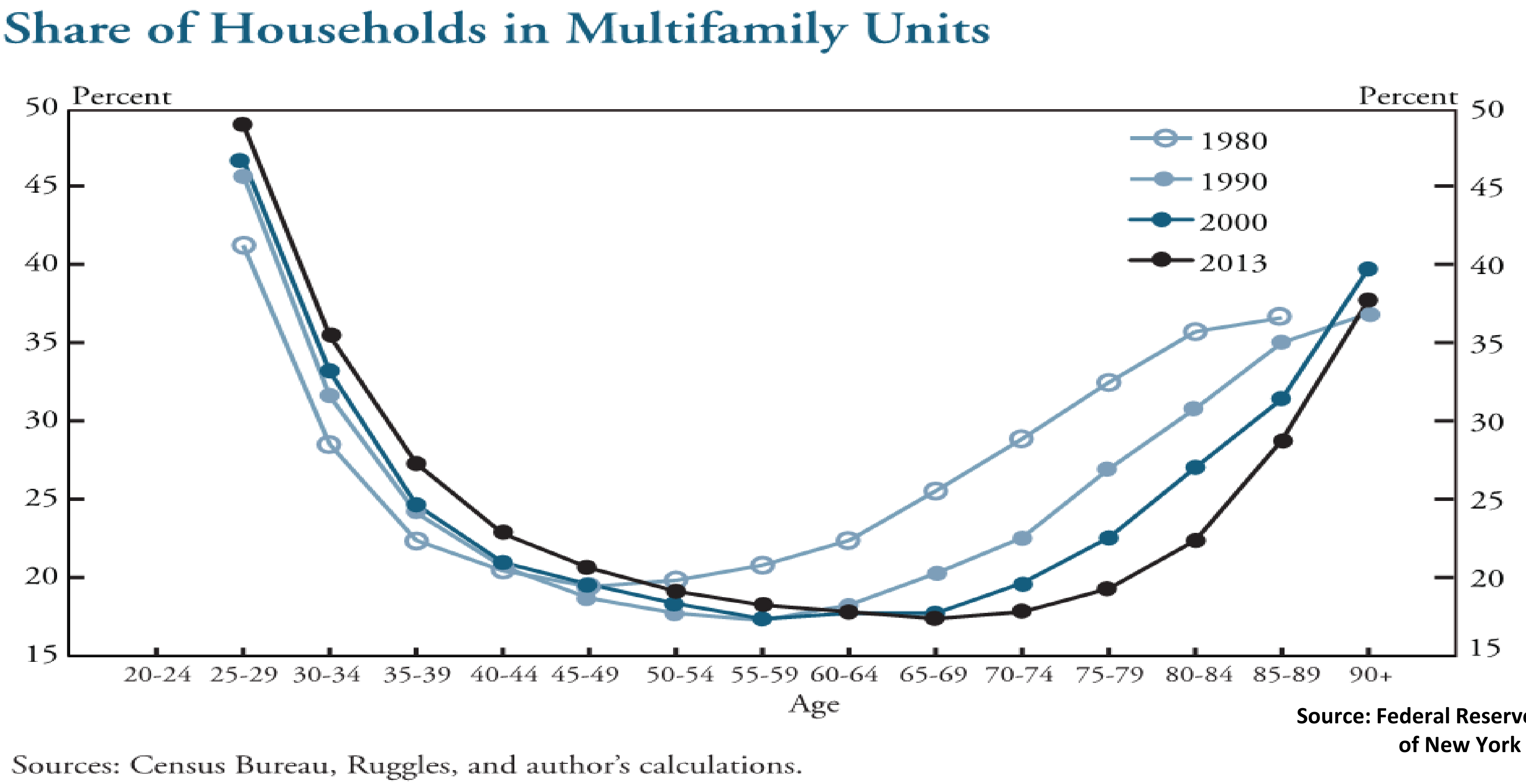
Source: Joint Center for Housing Studies at Harvard University (2015)

MILLENNIALS & XERS, FROM BUYING TO RENTING



Source: Federal Reserve Bank of New York (2016)

MILLENNIALS & XERS, FROM BUYING TO RENTING



Source: Federal Reserve Bank of New York (2016)

5. SUMMARY & (PERSONAL) TREND FORECASTS

LONG-TERM OUTLOOK

- Basic long-term message: Re-gear your quantitative forecasts.
  - The consensus medium/long projections for housing construction are TOO HIGH. Actual demand for new housing units/year in 2015-2020 is more likely to be nearer to 1.0 million than to 1.5 million.
  - As time passes (2015, 2020, 2025…), the gap between consensus & actual demand widens.

- These changes are driven mainly by demographic fundamentals.

OVERALL TRENDS OUTLOOK

- Further reflections on long-term qualitative shifts
    - Rental over ownership
    - P-to-P rental over “ordinary” rental
    - Multi-unit over single-home preference
    - Small units over large
    - Inner suburbs/urban over exurbs/rural

- These changes are driven mainly by generational preferences and social trends.

MORE ON OWNER-OCCUPIED TO RENTAL

- The rise of rental units at the expense of owner-occupied units represents a long-term shift that will not end with full economic recovery.

- Macroeconomic drivers:
  - Risk-aversion by lenders & “macro-prudential” regulatory environment
  - Less job security & fewer assets among young adults and new retirees
  - Growing generic youth preference for “rentals” & aversion to real estate as a risky investment

MORE ON EXURBIA AND RURAL

- Get ready for accelerating golden age of home remodeling, with epicenter in McMansioned exurbia.
- Prepare for ongoing decline in HH unit demand in rural America. Yet demand for rural hospitality and entertainment will stay robust, especially at the high end.
- Main driver: Boomers aging in place close to jobs and families – with fewer moving to rural retirement.

MORE ON URBAN AND INNER SUBURBAN

- Collective preference of Millennials will continue driving:
  - Multi-unit over single-home construction.
  - Small units (micro-apartments) over large.
  - 5 to 15 year regional growth trend in descending order:
    - Inner Suburb
    - Core Urban
    - Outer Suburb
    - Rural

- Fastest price hikes and most unit-downsizings in regulated, big-brand coastal hubs.

FOR MORE INFORMATION, CONTACT US AT:

SALES@HEDGEYE.COM

(203) 562-6500