WORKING DRAFT

Millennials Make the First Move

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I'm not trying to cause a big s-s-sensation
I'm just talkin' 'bout my g-g-g-generation
Pete Townshend

The largest population cohort ever is hitting the housing market – by the Census Bureau's count, 83 million Millennials. How will this play out, in the nation and in Wisconsin, in our individual communities? To foreshadow, Millennials have or are about to reach prime first time homebuyer age. So far this cohort's home-buying, and other housing market activity, has been below par, by several past norms. But there's some evidence it may be catch-up time, as we'll investigate in this note.

What's a Millennial?

Definitions, more or less

There is no "official" threshold for Boomers, Millennials, etc.; and data sources, analysts are not consistent.

- Children
  - Born ~ 1998 or later
  - Age in 2015: ~ 0 to 17
- Millennials (Gen Y, Echo Boom)
  - Born ~ 1981 to 1997
  - Age in 2015: ~ 18 to 34
- Generation X (Baby Bust)
  - Born ~ 1965 to 1980
  - Age in 2015: ~ 35 to 50
- Baby Boomers
  - Born ~ 1946 to 1964
  - Age in 2015: ~ 51 to 69
- Silent Generation
  - Born ~ 1928 to 1945
  - Age in 2015: ~ 70 to 87
- Greatest Generation (GI Generation)
  - Born before ~ 1928
  - Age in 2015: ~ 88 and over

The great photographer Ansel Adams said "there is nothing worse than a sharp image of a fuzzy concept." Despite the near ubiquitous use of such terms, there is no "official" threshold for Baby Boomers (the second largest cohort, at about 72 million according to Census's definition), Millennials and other generational labels like "Gen X," the Silent Generation, and the Greatest Generation. Data sources are not consistent, and different analysts use different labels – Millennials are also called Gen Y, the Echo Boom, and at least another half dozen labels, though Millennials seems to be the one that now sticks. Interestingly, according to Pew

Research surveys, only about 40 percent of Millennials call themselves Millennials – half the proportion of Boomers that self-identify!

Just because something is hard to define and measure precisely doesn't mean it isn't important, so despite a little ambiguity here and there we'll dive in and see what we can discern about the effects the Millennials are having, and likely to have in the near future, in Wisconsin's housing markets. Depending on the source, Millennials are born from around 1980 or 1981, to 1997, give or take a year. Their age as of this writing is around 18 to 34, plus or minus a year. As a UW Professor, I've seen a parade of Millennials through my undergraduate classrooms for about 15 years now; and I'll see the tail end of the bulk of this cohort in a few more years. But, as we'll discuss below, the Millennials may be about to tail off as the dominant collegiate cohort; but they are poised to take off as drivers of the housing market.

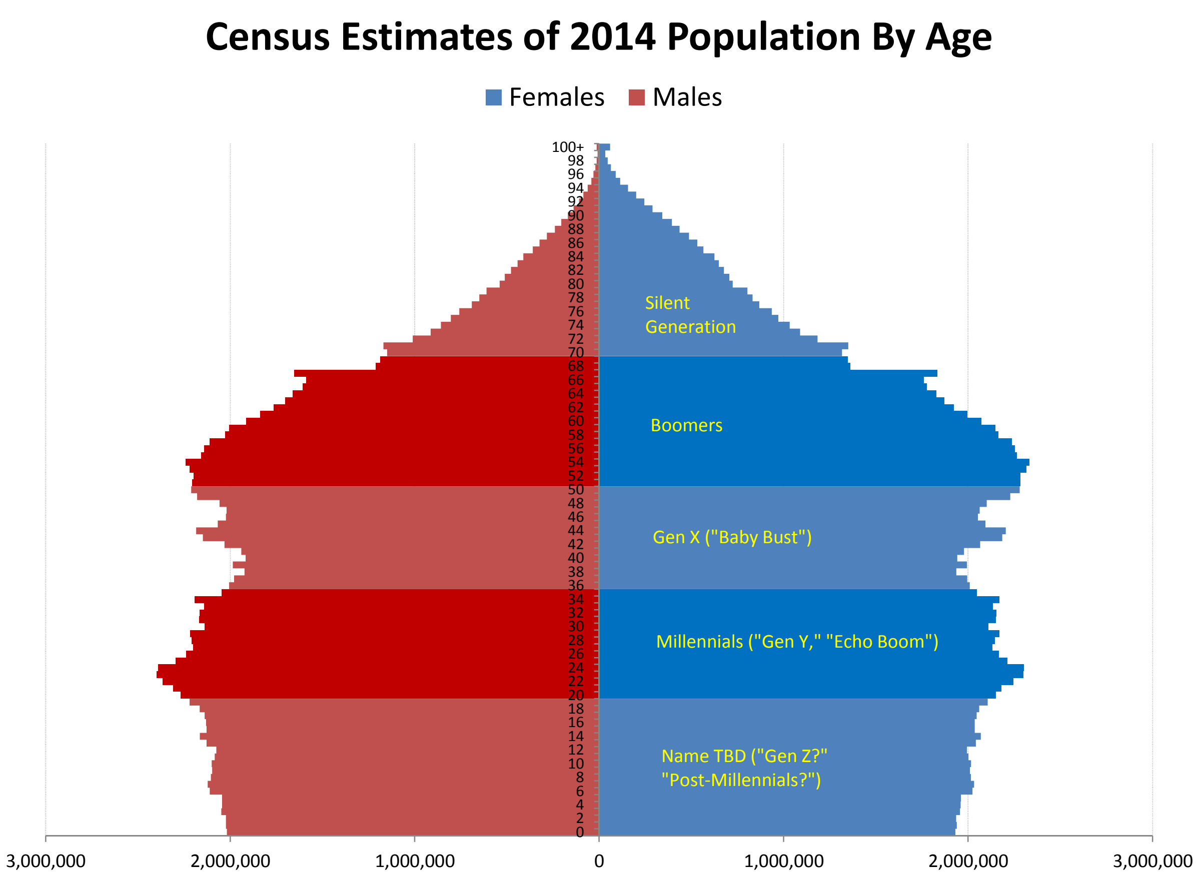


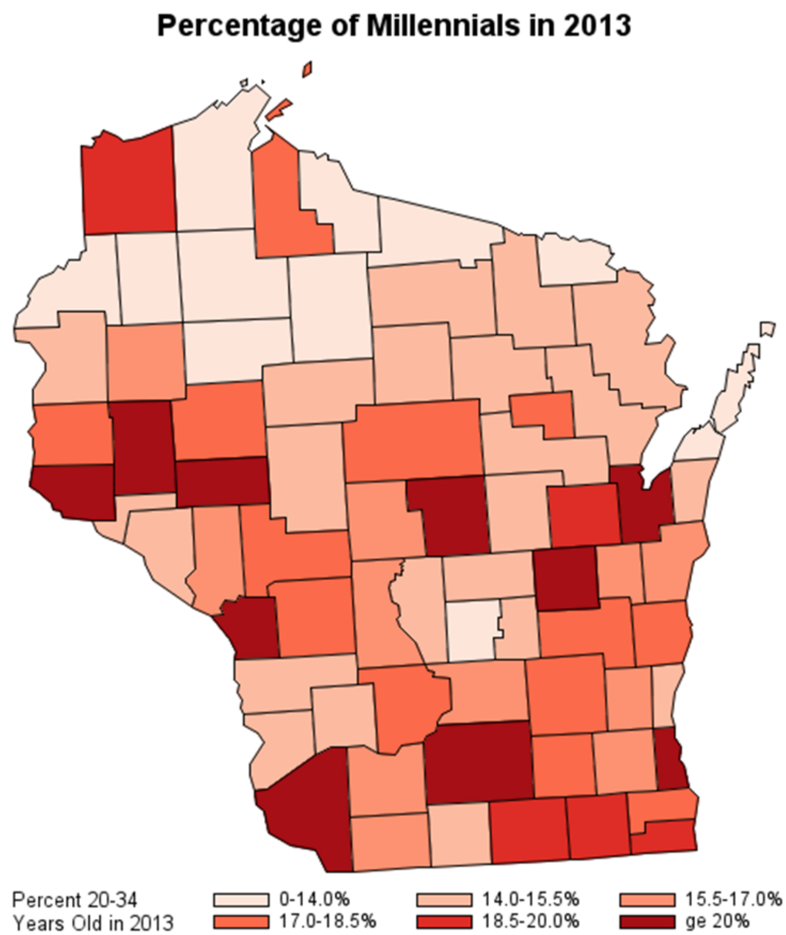
Figure 1 presents the latest available single-year age population data for the United States in a so-called population pyramid.[1] The Figure shows that Millennials are indeed a large cohort. The other large cohort is the post-World War II "Baby Boom," as already noted above. The in-between "Gen X" cohort is smaller, sometimes referred to as the "Baby Bust" in contrast to the post World War II Baby Boom. The Millennial's dominant position will only increase over the next several decades, as Boomers age and a noticeable fraction of us die off.

Millennials or "Gen Y'ers" are sometimes called the "Echo Boom," although the large size of this cohort is not any explosion of fertility rates, but rather modest fertility among a large cohort as Boomer women reached child bearing age. More detailed demographic studies show that immigration made an important contribution to the Millennial cohort, both directly (many Millennials are immigrants) and indirectly (a significant fraction of Millennials were born to first or second generation immigrants).

Who are the Millennials? Where Do They Live?

The most recent detailed Census population estimates by age category are for 2013. The Census category closest to common definitions of Millennials is age 20 to 34 years in 2013. Twenty-one percent of the U.S. population were Millennials, by this definition; Wisconsin's share was 20 percent. Within Wisconsin, six counties have 24 percent or more Millennials: Milwaukee, Portage, La Crosse, Dunn, Dane, and Eau Claire. At the other extreme, Iron, Vilas, Price, Florence, Bayfield and Burnett come in at 12 percent or below.

[1] There are as yet no single-year Wisconsin population estimates this recent; but qualitatively a Wisconsin pyramid would look very similar. Comparison of older population pyramids for the U.S. and Wisconsin confirms this. Wisconsin's older population has slightly higher proportions of Boomers and Silents, and slightly lower proportions of the youngest post-Millennial cohort. In 2010 Wisconsin's median age was 38.5, according to Census; the corresponding U.S. median age was 36.8.



Millennials: Are They Really Different?

If you're a Boomer, or part of another old cohort, here's a little perspective. The year the oldest Millennials were born, Ronald Reagan had just been elected President. Most Millennials have only seen Larry Bird and Magic Johnson play on YouTube -- the oldest were about 10 when Bird and Magic retired. None of them remember the Soviet Union; The Beatles are ancient history, and John Lennon was shot before they were born. Forget John Glenn and Alan Shepard – the Space Shuttle has been the manned space program their entire lives. Among the oldest Millennials are Chelsea Clinton, Venus Williams, and (yes, we have to mention her…) Kim Kardashian. In the "Last of the Millennials" crop now sitting in my classroom, most had hardly started elementary school when the 9/11 attacks took place, and Jerry Garcia died before they were born, as had South Africa's apartheid system. They've never known life without personal computing and spreadsheets, although the 1980s versions (the Apple II, VisiCalc) are laughable to Millennials – my students' smart phones pack more computing power than was coming out of Chippewa Falls-based Cray Supercomputers when the cohort started.

The poet William Blake cautioned us that "to generalize is to be an idiot," but the philosopher Hegel reminded us that thinking *requires* generalization. A number of surveys and marketing gurus have made a lot of generalizations about Millennials. They are often painted as confident, team oriented, achieving, very willing to work and learn. There's solid evidence that Millennials are more closely tied to parents than previous generations, in values, communication, advice and support for major decisions. (Maybe due in part to those supercomputers they're packing?) On the more negative side, some observers claim that Millennials are (simultaneously!?) more sheltered and more pressured than previous generations.

Other sources play down the purported differences, at least in basic preferences and attitudes. Studies by Oxford Economics, the Pew Research Center and the Demand Institute, as well as our own National Association of Realtors surveys, broadly find Millennials' job behavior -- labor mobility, job loyalty, desired job-life balance, importance of compensation -- similar to other cohorts. Millennials are more likely than previous generations to attend college, and are more likely to incur significant student debt. Like most age groups, Millennials have seen their homeownership rate fall in the aftermath of the mid-2000s housing bust and ensuing Great Recession. The Census Bureau's data show that in the decade before the peak, the homeownership rate of under-35s rose from 37 percent in 1994 to 43 percent in 2004; it's now back down to 36 percent.[2] The most arresting fact about age and homeownership, no surprise to the Realtor community, is the steady increase in homeownership with age; the homeownership rate of households with a head age of 35 to 44 is 60 percent, of those 45 to 54 is 71 percent, and those 65 and over is 80 percent; this last rate has barely budged in 15 years. Most Millennials (84 percent) tell the Demand Institute they own their own home, *or* plan to own in due course, about which more below.

[2] Reliable time series data on Wisconsin homeownership rates by age are not readily available, but analysis of aggregate data suggest that our homeownership rates are usually a little higher than national rates; changes in our rates closely track changes in the national rates.

Millennials Hit a Rough Patch in the Economy

Will Millennials be the first American generation in living memory to be less well off than its forbears? It's no secret that most of the Millennials have been entering the job market while economic performance has been disappointing. They faced the worst recession post-War recession followed by 8 years of slow growth; and less of the GDP growth that did take place filtered down to household incomes, especially if you failed to finish college. The Pew Research Center analyzed data from the Current Population Survey, the go-to source for earnings from the Bureau of Labor Statistics and the Census Bureau. They calculated median weekly earnings, in constant 2014 dollars, for persons age 25 to 35 for two years: pre-recession (2007), and current (2015). They found that college grads almost back to pre-recession levels. Young college grads earned an average of $966 in 2007 (again in 2014 dollars); this average took a hit during the recession, and has now climbed back to $951 in 2015.

If earnings of young college grads have yet to fully recover, 25 to 35 year old workers with "some college" but without a four year degree took the biggest hit, and are still hurting: $640 in 2007, only back to $560 today. High school and below started low, and stayed low: $527 in 2007, and $500 in 2015. Data on unemployment rates show qualitatively similar patterns. The unemployment rate for 25-34 year old holders of a BA or higher is currently 2.5 percent. The corresponding rate for 25-34 year olds with an associate degree is 3.3 percent; with some college but no degree is 6.6 percent; for those with high school only is 7.9 percent; and less than a high school diploma, 11.2 percent.

Recent research shows that time spent in college pays off, but to get the full economic payoff, on average, a four year degree still rules (exceptions like Bill Gates notwithstanding). Research also shows that the choice of major matters a lot for the average student: business and economics degrees, computer science and engineering do pay significantly more, on average, than (say) philosophy or music or drama or education. Emphatically, that's *not* to argue that everyone should major in business, or that nobody should major in music; but rather, these choices should be made with better information about the financial as well as non-financial opportunities and returns.

It's no surprise that the costs of post-secondary education, including UW tuition, have been rising rapidly. For most students, at most schools, the largest cost is not the cost of tuition, but the opportunity cost of forgone earnings while attending. That's not to downplay the role of moderate tuition, especially in improving access to potential students (and our eventual customers) from families of modest incomes.

Increasingly, housing professionals are voicing concerns about the potential negative effects of student debt. It's well known that aggregate student loan debt is rising rapidly, and now approaches $1.2 trillion; this figure has roughly tripled since 2005. About a third of this debt is held by under-30s. It's been mooted that this increase in student debt could be adversely affecting Millennials' ability to take on a mortgage. In order to evaluate this problem, let's take a closer look.

Recent research by the New York Fed shows that annual new student borrowing actually peaked in 2010, because of a combination of lower enrollments, and lower propensity to take a loan if enrolled. Furthermore, most borrowers have a current balance below $25,000. Recent annual default rates are slightly over 3 percent; all in, combining recent and past defaults, about 11 percent of loans outstanding are in default; another 6 percent are delinquent. Forty-six percent are current on the loan, but not yet repaying principal; 37 percent are current and actively paying down. The Fed research did not have data on the current income of borrowers, but they did show that defaults are concentrated among borrowers living in low-income zip codes. Two bottom lines can be inferred. First, the immediate and direct effect of student loans on the ability to purchase a home appears to be concentrated among the small minority of college students who borrow large sums and fail to graduate. Second, the long run impact on access to higher education may be a bigger threat to potential customers running out several decades.

From "Ozzie and Harriet" to "Modern Family?"

Given these challenges, perhaps it's not surprising that post-recession Millennial household formation has lagged – so far. There are more young adults (60 MM in 2007, now 63 MM) but the number of young adult households has not budged, holding steady at about 25 MM.

Pew survey results show that (excluding those attending college) 1/3 of young adults 18-34 are still living with parents or other relatives. Specifically, the percentage of young adults living independently has fallen from 71 percent pre-recession, to 67 percent post-recession; and has not yet recovered. Results are qualitatively the same if current college students are included in the mix.

Implications of the improvements in income, Demand Institute survey of preferences for ownership, and these Pew results: there's plausible pent-up demand, when prices and mortgage availability permit, at least for the college educated.

There is a potential fly in the ointment, a concern raised by several observers including Richard Green and Pamela Lee: declining marriage rates. According to Pew, Millennials are less likely than previous generations to connect marriage and child-rearing – one common prerequisite for successful life outcomes, according to research by Ron Haskins, Belle Sawhill and others.

Green and Lee report that after controlling for other determinants of homeownership like income and age, married couples are more likely to be homeowners; the difference between married and unmarried homeownership rates averages 22 percentage points. Marriage is, along with age, one of the strongest correlates of homeownership; and the Millennials have not been getting married as much as previous generations, so far. Pew finds that 22 percent of Millennials are married, but 36 percent have had children. At the same age, 36 percent of Gen X'ers were married; 49 percent of Boomers; and 64 percent of the Silent generation.

While there's been a long-run decline in marriage rates over time, surveys suggest that marriage remains an aspiration for many Millennials. While they typically rank it somewhat lower in importance than previous generations, 70 percent of unmarried Millennials want to marry some day; and 74 percent of those without children want them eventually. The big question, then, is how much of this decline in marriage is a fundamental shift – surely some is, since marriage rates have been declining steadily among several generations – and how much is a question of timing.

What Do the Millennials Mean for Housing?

There are signs of pent-up demand for owner occupied housing by Millennials; while Millennial household formation and homeownership has lagged, they still aspire to owning a home.   In the meantime, they've helped keep the rental market strong.

Economically, the college-educated have been bouncing back, especially if they've majored in STEM subjects, business or economics, or nursing. Those that attend college but don't finish have not yet seen their incomes get back to prerecession levels; and high school grads and below have seen their incomes continue to stagnate. Some Millennials are facing student debt burdens, but for most who complete 4 year degrees, debt burdens are manageable.

Despite rising sales for the past several years, first-time purchases are not yet back to normal. All in, there are good reasons to believe Millennials – those entering the job market and even more those in for a few years – will drive the first-time homebuyer market. And the bounce-back, if it comes, can be significant for the rest of the market.

The most recent NAR Profile of Home Buyers and Sellers finds that first time homebuyers are currently a third of the market. This is the lowest share since NAR began the survey 15 years ago. Over the long run, and excluding a few outliers from the years of an unsustainable housing boom, this share is usually around 40 percent.

When we break down a single year's first time homebuyers as a fraction of all households, by age of the household head, we see that young adults – 20 to 35 – drive the first time homebuyer market. First time homebuyers can be of any age, but traditionally first time home-buying peaks at about age 30.

Of course there are some homeowners who later switch back to renting, and not just because of foreclosures – some do so for job related moves, for example. But whether we look at greater or lesser periods, most homeowners, once they've purchased, stick with that tenure. By the time household heads hit 60, homeownership rates are about 85 percent.

NAR's recent survey found that Millennials comprised 32 percent of 2014 all homebuyers, outpacing Gen X'ers (age 35-49, 27 percent of buyers), Baby Boomers (age 50 to 68, 31 percent of buyers), and the older "Silent Generation" (69 and up, 10 percent). Recent detailed research from Richard Green and Hyojung Lee confirms the NAR research, suggesting that Millennials will drive housing demand for some years going forward.

Millennials are not just important for the entry level market. Decades of research, from work by James Sweeney, Frank de Leeuw and others in the 1970s, to more recent research by Wisconsin's François Ortalo-Magné and his colleague Sven Rady, have highlighted the importance of first-time homebuyers to the entire market. The housing market is a connected web of submarkets: first-time homebuyers not only house themselves, but are the sources of demand that enable more established households to trade up. And as they get on the housing ladder, in time they'll be the backbone of the trade-up market.

What Kind of Housing Market Awaits Wisconsin's Millennials?

In Wisconsin, Millennials will find good prices and affordable financing. Mortgage rates have been rising slightly recently, but are still low since the "Greenspan put" during the 2001 recession. Prices have strengthened lately, but are still well below 2006 peaks. Overall, as both national and Wisconsin data from our colleagues confirms, housing affordability is solid – if you can qualify for a mortgage.

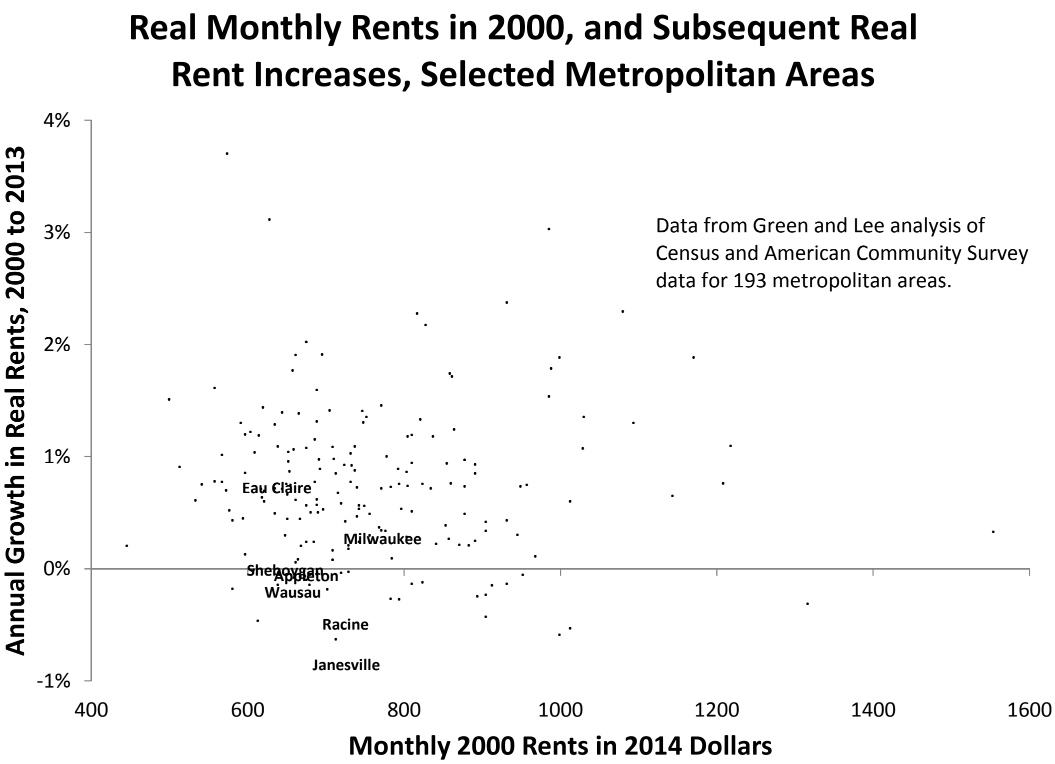
Our state is in better shape than many others on this score. Research on house prices currently underway at the Graaskamp Center confirms what WRA members already know, that Wisconsin markets have been much less volatile than other markets. We had an early 2000s boom and a post 2006 bust, but ours were modest in all our major metropolitan markets, compared to much of the rest of the country. Recent prices in Wisconsin have shown moderate growth, largely in line with fundamentals. Nationwide, some markets in coastal markets have begun to show a little "froth," but Wisconsin markets are largely affordable and fairly stable.

Many pundits obsess about mortgage rates and what the Fed is up to, but in the last 20 years, it's been capital flows and mortgage qualification that drive the housing market on the finance side, not the modest changes in low rates that we've seen. Green and Lee report that in the early 2000s, when underwriting was looser than it should have been, average FICO scores were (approximately) 710; today they are around 750. Nationwide, a rough estimate might be that 35 or 40 percent of borrowers are above this average; the 40 point upward shift in average FICO might represent something like 15 percent of borrowers moved from above average to below average. Has the pendulum swung too fr in the direction of tighter qualification requirements? That's hard to pin down exactly, though it's even harder to argue that it wasn't necessary to tighten up from the early 2000s. Wisconsin lenders and borrowers have, in the main, been more prudent than those in some other states, as we've seen not only in our generally lower default rates but also our lower scores on direct measures of loan risk by Steve Oliner and Ed Pinto. Recent analysis on credit availability by the Urban Institute (Bai, Li and Goodman 2015) finds that credit may be loosening somewhat, and the Oliner-Pinto indexes also show some loosening, both nationally and in Wisconsin. The trick, of course, will be to not repeat the poor [or sometimes non-existent] underwriting that characterized some of the lending we saw a decade ago. And it would help to figure out how to optimize the documentation required for loans.

The rental market will continue to thrive, for Millennials and others. While the majority – 65 percent – of U.S. households are still homeowners, rental housing – always important – has been especially critical since the 2006 housing bust. In 2006, there were about 76 million owner-occupied households; since that time, that number declined very slightly, to about 75 million. But over the same time period, the number of renter households increased from about 35 million to 41 million today.

In Wisconsin as well as the U.S., multifamily starts are back above trend; single family starts are still well below trend. Most multifamily units are rental, but about 13 percent are condos and coops. Few single family units are purpose-built for rental, but about 15 percent of single family units are rented. Looked at another way, about 60 percent of rental housing is multifamily, and about 35 percent of rental housing is single family; another 5 percent of renters live in mobile homes.

Rents in Wisconsin are less burdensome than we find in many other states. Richard Green and Pamela Lee use Census and American Community Survey data to analyze inflation-adjusted rents and incomes in 2000, and 2013; some of their data is presented in Figure 3. Every dot is a metro area; Wisconsin metro areas are labeled with a short version of their place names.[3]



Compared to other markets, Wisconsin's metro areas have moderate rent levels, and have had modest increases in recent years. As the Figure shows, over the past decade real rents have been rising in many

[3] There are 198 metro areas in the Green and Lee database. Several Wisconsin metro areas, notably Madison and Green Bay, have missing data and aren't in the Figure. Analysis of another Census data source, slightly less up to date, found that these markets were also below national averages in those comparisons.

markets, especially in coastal markets. The national average rent in 2013 was $876; all the Wisconsin metro areas were below this average. The average real growth rate from 2000 to 2010 was 0.8 percent; all Wisconsin metro areas were below this average. On balance, rental housing, and for that matter owner-occupied housing, remains affordable by national standards in our state.

Wrapping Up

“Demography is destiny” is a common claim, so common it’s a little hackneyed, and certainly overstated. But there’s surely some truth in it. As Wisconsin’s Millennials go, so will go our housing market, in the next few years and beyond. In the longer run, we face some other demographic challenges, including a relatively low population growth state, and especially challenges in educating and training our younger population, retaining them, and attracting more talented young people from other states and countries.

Selected Reading

Altonji, Joseph G, Lisa B Kahn, and Jamin D Speer. "Trends in Earnings Differentials across College Majors and the Changing Task Composition of Jobs." The American Economic Review 104, no. 5 (2014): 387-393.

Bai, Bing, Wei Li, and Laurie Goodman. "The Credit Box Shows Early Signs of Loosening: Evidence from the Latest Hcai Update." Washington, DC: Urban Institute, 2015.

Berry, Todd. "The Impending Storm: Changing Demographics and Wisconsin's Economic Future." Wisconsin Taxpayer's Alliance, 2015.

De Leeuw, Frank, and Raymond J. Struyk. The Web of Urban Housing: Analyzing Policy with a Market Simulation Model: Urban Institute, 1975.

Goodman, Laurie, Rolf Pendall, and Jun Zhu. "Headship and Homeownership." (2015).

Green, Richard K, and Hyojung Lee. "Age, Demographics, and the Demand for Housing, Revisited." University of Southern California, Lusk Center for Real Estate Working Paper, 2015.

Green, Richard K., and Pamela P. Lee. "The State of Housing." In Wisconsin Real Estate and Economic Outlook Conference: James. A Graaskamp Center for Real Estate, 2015.

Haskins, Ron, and Isabel Sawhill. Creating an Opportunity Society. Washington, D.C.: Brookings Institution, 2009.

Haughwout, Andrew F, Donghoon Lee, Joelle Scally, and Wilbert van der Klaauw. "Student Loan Borrowing and Repayment Trends, 2015." Federal Reserve Bank of New York, 2015.

Hoover, Eric. "The Millennial Muddle." Chronicle of Higher Education, (2009).

Keely, Louise, Bart van Ark, Gad Levanon, and Jeremy Burbank. "The Shifting Nature of Us Housing Demand." The Conference Board and Nielsen: The Demand Institute, 2012.

Malpezzi, Stephen. "Housing Prices, Externalities, and Regulation in U.S. Metropolitan Areas." Journal of Housing Research 7, no. 2 (1996): 209-41.

Oliner, Stephen and Edward Pinto. Mortgage Risk Index, published by the American Enterprise Institute. http://www.housingrisk.org/

Ortalo-Magne, Francois, and Sven Rady. "Boom in, Bust Out: Young Households and the Housing Price Cycle." European Economic Review 43, no. 4-6 (1999): 755-766.

Oxford Economics. "The Millennial Misunderstanding." Oxford, UK, 2015.

Pew Research Center. "Millennials: Confident. Connected. Open to Change.". Washington, DC, 2010.

________. "For Millennials, Parenthood Trumps Marriage." Washington, DC, 2011.

________. "Fewer, Poorer, Gloomier: The Lost Decade of the Middle Class." Washington, D.C., 2012.

________. "Millennials in Adulthood: Detached from Institutions, Networked with Friends." Washington, DC, 2014.

Realtors, National Association of. "Home Buyer and Seller Generational Trends." NAR Research Division, 2015.

Skowronski, Jeanine. 2015. "More Millennials Say 'No' to Credit Cards," Bankrate.com.

Sweeney, James L. "Quality, Commodity Hierarchies, and Housing Markets." Econometrica: Journal of the Econometric Society, (1974): 147-167.

World Bank. World Development Report 2007: Development and the Next Generation. Washington, D.C., 2007.

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