MISSING MILLIONS OF HOMES

Preliminary Findings of the New Democrat Coalition Housing Task Force



Task Force Co-Chairs Denny Heck, Stephanie Murphy, Juan Vargas and Scott Peters NDC Chair Jim Himes

INTRODUCTION

Crises and scandals dominate the news and crowd out coverage of other challenges we face, but it is impossible to escape the evidence that something is very wrong with housing in America.

The struggles shared with us by constituents, the frustration voiced by homebuilders, the concern expressed by city and county leaders, and the disappointing data presented by economists all tell distinct aspects of the same story: housing is increasingly scarce and increasingly expensive. In the richest country in the world, millions of people are struggling to meet their most basic needs: a pillow, a blanket, and a roof.

ABOUT THE NEW DEMOCRAT COALITION

The New Democrat Coalition is made up of 68 forward-thinking Democrats who are committed to pro-economic growth, pro-innovation, and fiscally responsible policies. New Democrats are a solutions-oriented coalition seeking to bridge the gap between left and right by challenging outmoded partisan approaches to governing. New Democrats believe the challenges ahead are too great for Members of Congress to refuse to cooperate purely out of partisanship.

ABOUT THE HOUSING TASK FORCE

The Housing Task Force was convened in March 2017 to look at the entire housing ecosystem and identify solutions to rising housing costs. It builds on previous New Dem efforts to devise reforms to Fannie Mae and Freddie Mac, but it covers the full scope of federal housing policy, including housing subsidies offered through HUD and incentives in the tax code. The Task Force may also make findings and propose reforms relevant to state, local, and regional levels.

The Housing Task Force conducts its work through briefings and meetings with stakeholders, economists, academic experts and policymakers.

IN SUMMARY

What We Observe:

<u>Housing is increasingly unaffordable</u> *because* <u>prices and rents are rising faster than wages</u> *because* <u>construction is not keeping up with</u> <u>demand.</u>

Implications of Unaffordable Housing:

High cost of shelter is the single biggest squeeze on household budgets and a significant drag on the economy. It is forcing Americans to live on the street, reducing GDP by trillions of dollars, substantially reducing Americans' retirement savings, and undermining our ability to recover from recession.

What We Think Is Causing Crisis in the Housing Ecosystem:

The construction shortfall is too big to be fully explained by any one of the causes below, but significant factors include:

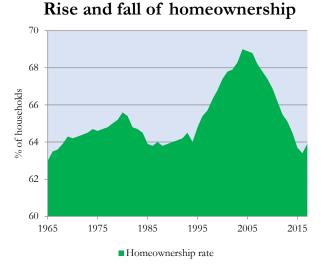
- Zoning and land-use regulations are slowing and restricting building of housing
- Demand has shifted to walkable transit-served urban areas, which are in short supply
- Construction funding is less available in the aftermath of the financial crisis
- Construction labor is not getting more productive and the labor pool is not increasing

What to Do About It:

We need to continue to develop full policy recommendations for the final report, but the goal is clear: <u>We Need to Build Millions</u> <u>More Housing Units.</u>



OBSERVATIONS

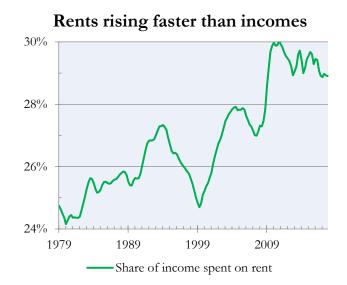


The Home-Ownership Rate Has Plunged

At the end of 2004, almost 70 percent of all U.S. households lived in a home they owned, an all-time high. By 2016, that measure had dropped below 64 percent, to the lowest level since the Census began collecting these data in the 1960s.¹

The Rent Is Too Damn High

Jimmy McMillan campaigned for Governor of New York in 2010 on the tagline "The rent is too damn high." He captured national attention because he spoke to concerns voiced in cities all around the country. Those concerns have only intensified since then. Rents are rising faster than incomes in almost every large market in the country,² which means families are forced to divert thousands of dollars from other needs just to pay their landlord each month.



Homelessness Is Growing, Especially in the Richest Cities

Despite a strengthening economy and a decade of surging federal investment in ending

"Worsening Affordability Costs Renters Nearly \$2,000 a Year" Zillow Research, Nov 28, 2017. Accessed at: https://www.zillow.com/research/affordability-q3-2017-17466/

 ¹ Housing Vacancy Survey, U.S. Census Bureau. Accessed at: https://www.census.gov/housing/hvs/index.html
 ² Research on Zillow's rental database shows that median rents have risen faster than median incomes in 34 of the 35 largest U.S. cities since the 1990s. Only Pittsburgh has seen median rents grow slower than median income since then.

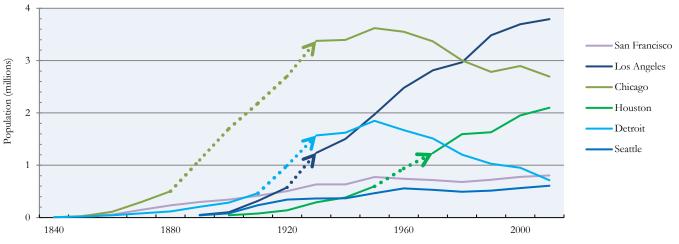
homelessness, the homeless population grew in 2017, driven by increases in thriving West-Coast cities. In the cities with the fastest growing economies, competition over scarce housing is the fiercest, and the poorest families eventually find that no housing is affordable. They either leave the city or join the homeless population. In 2017, over 550,000 Americans were sleeping in shelters or on the street on a typical night.³

Homeless population in large West Coast cities		
	<u>2016</u>	<u>2017</u>
Los Angeles (LA Co), CA	43,854	55,188
Seattle (King Co), WA	10,730	11,643
San Diego (SD Co), CA	8,669	9,160
San Jose/ Santa Clara, CA	6,524	7,394
San Francisco, CA	6,996	6,858

There Are No More American Boomtowns

Part of America's explosive growth over its first two centuries was a series of boomtowns that exploited new technology. Chicago's railroads, Detroit's auto industry, and Los Angeles' moviemakers all made those cities hugely profitable and offered high wages to new workers. People flocked to these cities, and their populations boomed (Chicago tripled 1880-1900, Detroit tripled 1910-1925 and LA These quadrupled 1910-1925). economic dynamos lifted the whole country's wealth. Today, our high-wage cities are still attractive, but their populations no longer soar because they do not build enough new housing to offer to all the people who would come.4

America's History of Boomtowns



Dotted lines mark periods of explosive population growth (at least doubling population in one decade)

³ All data from HUD's point-in-time estimates of homelessness conducted one night each year. 2017 was the first increase after a decade of progress in combatting homelessness, and, if you exclude the large west coast cities, the homeless population continued to decline.

"The 2017 Annual Homeless Assessment Report (AHAR) to Congress, Part 1: Point-time Estimates of Homelessness" U.S. Department of Housing and Urban Development, December 2017. Accessed at:

https://www.hudexchange.info/resource/5639/2017-aharpart-1-pit-estimates-of-homelessness-in-the-us/ ⁴ This section and the accompanying graph draw heavily from a compelling story by Emily Badger in New York Times' Upshot section. It summarizes recent economic research on internal migration in America, and it presents a unique way of seeing how lack of housing is hurting economic opportunity. Badger, Emily. "What Happened to the American Boomtown," New York Times, December 6, 2017. Accessed at:

https://www.nytimes.com/2017/12/06/upshot/whathappened-to-the-american-boomtown.html

THE PROBLEM

Too many people are bidding for too few homes.

the number of vacation homes) but the net effect is that total demand for homes is even higher than the number of households that need a place to live.

We have too few homes because we have seen a collapse in home construction for the last decade. As a result, prices are rising and people are being squeezed out of housing and homeownership.

<u>The Paradox of Home Construction:</u> Demand is improving. Prices are Strong. Demographics are Positive. But Construction is Weak. Altogether, demographic and

demographic and economic factors are pushing demand for homes to all-time highs and driving the increasing prices we see

in homebuying and rental markets.

Home Construction Is Stuck at Recession Levels

There ought to be no better time to be a homebuilder. They can sell at record-high home prices, they are competing against record-low inventory, and the long-term demographic trends should keep their markets strong for years to come.

We might expect a frenzy of building. Instead, we have gotten the opposite. The industry is building 30 percent fewer homes than a decade ago and roughly the same number as were built during the mid-1990s, when the population was 20 percent smaller.

The National Association of Home Builders calls it the paradox of home construction: demand is improving; prices are strong; demographics are positive; but construction is weak.

There Is Tremendous and Growing Demand for Housing in the U.S.

We are seeing a confluence of several powerful factors (both secular and cyclical) that are driving up demand for housing in America:

1) the largest generation in U.S. history is entering the workforce and reaching the age where they should form households of their own⁵;

2) the economic recovery is finally approaching full employment, and formerly unemployed workers can now once again pass an ability-topay test for rent or mortgages;

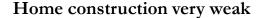
3) Census data show a rising number of homes being held vacant except for seasonal or occasional use. The rise in these "second homes" are driven by a variety of factors (baby boomers reaching retirement age and buying winter homes, foreign buyers investing in safe U.S. assets, and income inequality increasing

^{25-29,} to 50% of those 30-34). For more on these trends, see <u>https://www.frbsf.org/economic-</u>research/publications/economic-

letter/2016/may/household-formation-among-young-adults/

⁵ Whether you call them Generation Y or millennials, the cohort of Americans entering adulthood over the last two decades are the largest in American history.

Generally, as people age through their 20s, household formation surges (from 20% of those 18-24 to 40% of those





Home construction includes both market-rate and government-subsidized housing. Both aspects of homebuilding are seeing far too little construction, even though they are developed and financed in separate ways.

We Are Missing Millions of Homes

Home construction has been exceptionally weak since the financial crisis, and by some measures, it was falling short even before then. After years and years of too little construction, we are now short millions of homes.

In normal times, we need up to nearly a million newly built housing units per year just to make up for those lost to fire, decay, demolition or other destruction.⁶ To accommodate growing population⁷ and other sources of new demand, we likely need more than a million additional new units per year.

Instead of the needed 15 to 20 million new housing units per decade, for the last ten years, fewer than ten million new units have been built.

Instead of this goal of 15 to 20 million newly built housing units per decade, for the last ten years, builders and manufactured home distributors have delivered fewer than ten million new units.⁸ Some of this shortfall has been offset by slower losses of existing housing stock,⁹ but our supply of new housing is clearly well short of demand.

Estimate Program. Accessed at:

https://www.census.gov/programs-surveys/popest.html ⁸ The Census tracks starts, completions and sales of new sitebuilt and shipments and placements of manufactured homes. Both are reported monthly. For the years 2008-2017, Census reports 8.86 million housing starts of site-built homes, and 654,000 shipments of manufactured homes.

New Residential Construction, U.S. Census Bureau. Accessed at: https://www.census.gov/construction/nrc/index.html Manufactured Housing Survey, U.S. Census Bureau. Accessed at: https://www.census.gov/programs-surveys/mhs.html ⁹ The rate of housing loss pre-crisis averaged over one million units per year but post-crisis reports average around 800,000 units lost per year.

"Components of Inventory Change," see above.

⁶ HUD produces regular reports called the Components of Inventory Change (CINCH) that produce detailed estimates on housing units created and destroyed in the U.S.

Unfortunately, the reports are published with a long lag, and the most recent one covers 2011-13. Over the last decade covered by reports, the number of housing units lost per year has varied from 780,000 to 1.12 million.

Some of the lost units can be recovered (e.g. fire damage can be repaired or houses converted to storefronts or offices can be converted back), so not all of these require replacement by newly-built units. Economists use estimates of 400,000 to 600,000 for the number of homes that need to be replaced by new construction just to keep the total housing stock level. "Components of Inventory Change" reports, U.S. Department of Housing and Urban Development Office of Policy Development and Research. Accessed at:

https://www.huduser.gov/portal/datasets/cinch.html ⁷ The Census estimates the U.S. population grows by about 2 million people per year. U.S. Census Bureau Population

Estimates vary on the exact size of the shortfall, but over the last decade, the construction deficit has been several hundred thousand units per year.¹⁰ Some economists argue that home construction was falling short of demand even before the crisis¹¹, but even setting that aside, there is widespread agreement that the cumulative shortfall is over five million homes.

Where the Houses Are Missing

The missing homes are apparent both by income and by geography.

With insufficient construction to serve the whole market, new market-rate construction is much more focused on the high end. In the decades leading up to the crash, new homes and existing homes sold at similar prices: the median new home sold for \$20,000 more than the median sales price for an existing home. Over the last decade, that spread has quadrupled to \$80,000 as builders increasingly focused on high-end homes.¹² The rental market is seeing a similar focus on luxury properties. Overall, the middle market is being starved for homes.

Median sale price





¹⁰ For example, the Urban Institute published an analysis of supply and demand in 2016 that concluded that in 2015 alone, the shortfall grew by 430,000 units.

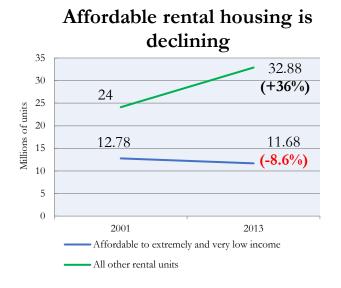
https://www.mercatus.org/publications/housing-wasundersupplied-during-great-housing-bubble

¹² Median sale price of new homes comes from the Census Bureau's New Residential Construction Report (see above) Median sale price of existing homes is part of a monthly report on sales of existing homes published by National Association of Realtors.

"Existing-Home Sales" National Association of Realtors. Accessed at: https://www.nar.realtor/research-andstatistics/housing-statistics/existing-home-sales

Laurie Goodman and Rolf Pendall. "Housing Supply Falls Short of Demand by 430,000 Units." Urban Institute, June 21, 2016. Accessed at: https://www.urban.org/urban-wire/housingsupply-falls-short-demand-430000-units

¹¹ See, for example, "Housing Was Undersupplied during the Great Housing Bubble" by Kevin Erdmann, Mercatus Center, April 10, 2018. Accessed at:



Things are even worse for those who depend on affordable housing. The number of units available to households with very-low or extremely-low income is in outright decline. Construction of these affordable units is not even keeping up with the rate at which they are torn down, much less kept pace with the growth of populations they serve.¹³

Instead of looking by income, we can look at geography. Rising prices tell us where demand for housing outstrips supply. The markets where prices are rising the most rapidly are many of our most vibrant, attractive metro areas, and it therefore must be these markets where the housing shortfall is concentrated.



¹³ This chart was first prepared by Brett Theodos and Karen Kraul at Urban Institute.

These data come from reports produced alongside the Components of Inventory Change (CINCH) reports noted above and are available at the same website.

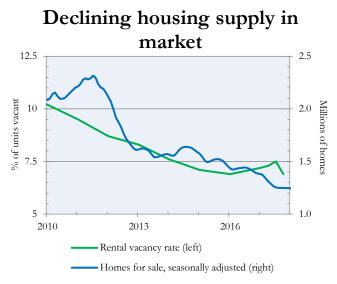
The specific reports used for the graph and statistics here are: "Rental Market Dynamics 2001-2003" U.S. Department of Housing and Urban Development Office of Policy Development and Research, August 2005. Accessed at: https://www.huduser.gov/portal/datasets/cinch/cinch01-03/RentalDynamicsReportAugust2005.pdf "Rental Market Dynamics 2011-2013" U.S. Department of Housing and Urban Development Office of Policy Development and Research, July 2016. Accessed at: https://www.huduser.gov/portal/datasets/cinch/cinch13/Re ntal-Dynamics-Report.pdf

IMPLICATIONS

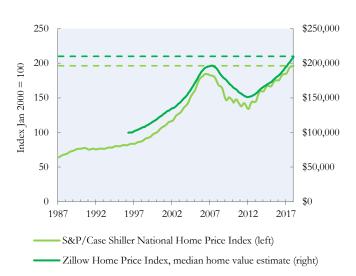
In the absence of sufficient housing, Americans respond in two ways:

1. They delay forming new households by living with their parents or doubling or tripling up with roommates.

2. They also more aggressively pursue the housing that is available. Vacancy rates drop, homes for sale get multiple offers, and the price of everything rises.



Housing is an ecosystem, where changes in one market produce spillover effects in other markets (e.g. rising home prices drive up rents; rising urban costs push up suburban costs), and we are seeing the entire ecosystem under stress: in regions where population is growing,¹⁴ the cost of shelter is growing everywhere for everyone: home prices and rents, in urban, suburban, and exurban areas.¹⁵



All-time high home prices

Every price increase and rate increase pushes families down a rung: from prospective firsttime homebuyers to long-term renters; from tenants in market-rate housing to applicants for rent vouchers; from extremely rentburdened to homeless.

It is important to look not just at these firstorder effects, but also consider the less apparent effects of our housing shortage.

Zillow data accessed at: http://zillow.mediaroom.com/2016-01-29-As-Trends-Shift-Urban-Home-Values-Outpace-Thosein-the-Suburbs

¹⁴ Almost every metro area in the United States is seeing population growth.

¹⁵ Economist Jed Kolko published several studies earlier in the decade showing that prices in suburban and less-dense developments were increasing nearly as fast as prices in urban. More recently, Zillow has been publishing releases comparing urban prices to suburban ones. Commentators often focus on urban home price increases and imply that there is something unique about demand and supply in

center cities. In fact, price increases in outlying areas shows that supply is falling short of demand even in suburban and less-dense areas.

Prices and Rents Are Rising Faster than Wages

As people get more aggressive in pursuing scarce housing, they do so by devoting more of their budget to housing. In the last three decades, median household income has risen 110 percent. But median household rents have risen 140 percent.¹⁶ A larger and larger share of Americans' paychecks is going to pay for the roof over their heads.

This is especially true during the current economic recovery. Since 2012, household income has risen at 4 percent per year, but home prices have been rising at 5.3 percent per year.¹⁷ There is substantial variation in both income and home prices from city to city, but the consistent pattern is that average home prices are rising faster than average wages.

Low-Income Families Are Especially Stressed

For workers and families at the low end of the income spectrum, wages have never been adequate to cover housing costs, so the government must step in. But even though housing costs are soaring (and even though income growth has been particularly weak for low-income families), subsidies and supports are being reduced rather than increased. Lowincome Americans face the worst affordability problem of all. Waiting lists for housing vouchers have grown so long that many housing authorities have stopped even taking names.¹⁸ Families on the list will wait years for assistance and in the meantime face unaffordable housing options.

In almost every American city seeing rapid growth, housing becomes a game of musical chairs. We end up with more people than housing units and when the music stops (or the rent increases), the unlucky are left homeless. No amount of funding for initiatives to combat homelessness has been able to overcome this fundamental problem of too many players and not enough chairs.

One group of low-income Americans that has received particular attention for their housing plight is Veterans. HUD and the VA are partnering to try to end Veteran homelessness,

costs, the fraction is often much smaller. To limit wait times, most public housing authorities have closed their waiting lists and are not accepting new applicants. When they do reopen the waiting lists, it is often for a very brief period. Demand for housing assistance is clearly several times as large as the assistance available, and this gets worse as housing costs rise faster than wages.

¹⁶ Median Household Income is calculated and published by Census. Median Household Rent is calculated and published by Zillow.

[&]quot;Income and Poverty in the United States" U.S. Census Bureau. Accessed at: https://www.census.gov/topics/incomepoverty/income.html

Zillow Rent Index (Multifamily SFR, Condo, Co-op) downloaded at: https://www.zillow.com/research/data/

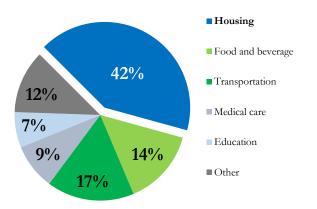
¹⁷ See above for median household income from Census Bureau

Home prices refers to Zillow Home Value Index for All Homes Zillow Home Value Index (SFR, Condo, Co-op) downloaded at: https://www.zillow.com/research/data/

¹⁸ Only about 1 in 4 families eligible for housing vouchers receives one, and in cities with high or rapidly rising housing

Alicia Mazzara. "Housing Vouchers Work: Huge Demand, Insufficient Funding for Housing Vouchers Means Long Waits" Center for Budget and Policy Priorities, April 19, 2017. Accessed at: <u>https://www.cbpp.org/blog/housing-voucherswork-huge-demand-insufficient-funding-for-housingvouchers-means-long-waits</u>

Where the median family spends money

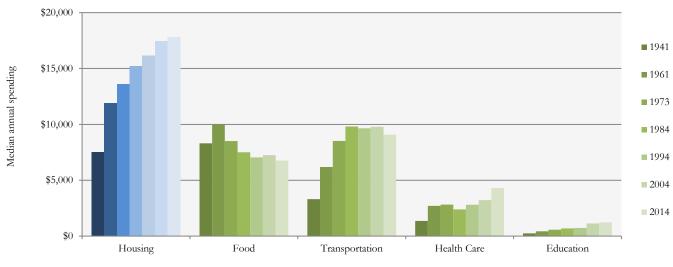


but the relentless rise in housing costs makes that goal increasingly difficult.

Rising housing costs squeeze American family budgets more than education or health care.

We all know housing is important to American budgets, but we often fail to realize how important. In the typical family budget that is used to calculate the consumer price index (CPI), housing is, by far, the largest expense (housing makes up 42 percent of the consumer price index), far larger than education (7.0 percent) and medical care (8.5 percent).¹⁹

Because it so dominates American families' budgets and because prices are rising, housing is creating the most pressure on family budgets. Media attention focuses on surging



Americans keep spending more on housing

Spending adjusted for inflation

Bureau of Labor Statistics. The percentages above refer to the share of the market basket used for calculating the consumer price index for all urban workers (CPI-U). According to BLS, "The CPI market basket is developed from detailed expenditure information provided by families and individuals not just the cost of rent but also the cost of utilities to light and heat the housing unit. These data are available in each month's CPI report under the heading "Relative Importance." Consumer Price Index data available at: https://www.bls.gov/cpi/

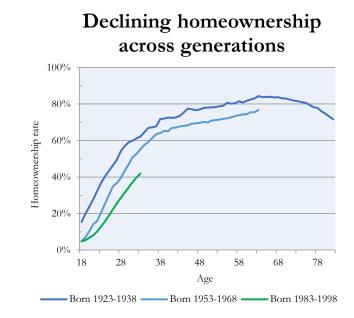
prices in education and medical care, but <u>the</u> <u>increasing cost of shelter has been the single</u> <u>largest increase in U.S. family budgets over the</u> <u>last 15 years.²⁰</u> If we want to give Americans certainty in budgeting and financial security, it is vital to contain housing costs.

Declining Home Ownership Is Denying Americans The Most Powerful Traditional Wealth-Building Tool

For all but the wealthiest families, buying a home requires a down payment and a mortgage. Rising rents make it harder to save for a down payment, and rising home prices demand larger down payments, and make it harder to qualify for a mortgage. It is no coincidence that the home ownership rate has plunged, especially for first-time home buyers.

We can see this in census data. Millennials are not able to buy homes at nearly the rate that their parents and grandparents were. Even when excluding those living with their parents, millennials' home ownership rate is tracking fifteen percentage points below those born 30 and 60 years earlier.²¹

Historical market-basket data are available at: https://www.bls.gov/cpi/tables/relativeimportance/home.htm



Even before the soaring home prices of the last 15 years, home ownership was the most important wealth-building tool for middle-class families.²² Paying off a mortgage is economically the same as putting money in savings, and the forced nature of mortgage payments makes them a powerful forced savings program. The median homeowner's home equity is three times as big as the median retirement savings.²³ For the middle class,

²⁰ We can see housing share of a family's budget over time by looking at the historical data for the Bureau of Labor Statistics market basket. Comparing one year's market basket to another to shows how families spend their money over their time.

²¹ This comparison of homeownership over generations is made possible by looking at the data from censuses conducted through the 20th Century, which have all included questions on home ownership. The chart was first prepared and presented by Twitter user @xenocryptsite. The underlying census microdata are available at the excellent IPUMS (integrated public use microdata series) site hosted by the University of Minnesota: <u>https://usa.ipums.org/usa/</u> ²² There are scores of economic analyses from the pre-crisis era showing that homeownership was a powerful wealth-

building tool, but it wasn't clear if those would hold up after home prices fell and millions of Americans suffered through foreclosures.

Chris Herbert and a team from Harvard's Joint Center on Housing Studies followed up in 2013 looking specifically at minority and low-income homeowners, and they found that homeownership was still an effective wealth-building tool despite the crisis.

Christopher Herbert, Daniel McCue and Rocio Sanchez-Moyano "Is Homeownership Still an Effective Means of Building Wealth for Low-Income and Minority Households? (Was It Ever?)." Harvard University Joint Center for Housing Studies, September 2013. Accessed at:

http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/hbt I-06.pdf

²³ The Federal Reserve's Survey of Consumer Finances is the best source of data on American households' wealth and its

buying a home and paying down the mortgage is their primary way of saving for retirement.

One estimate shows that millennials will have to work until age 75 on average, in part due to reduced retirement savings from being locked out of home ownership.²⁴

Policy Changes May Make Home Price Increases Worse

Despite the increased difficulty saving for down payments and the larger mortgages required, it is clear we have far more people trying to buy homes than there are homes for sale. That gap is what drives home prices steadily higher, and it is how home prices have eclipsed the top of the so-called housing bubble. It is worth noting that impending federal policy changes may widen the gap further, which would put more upward pressure on home prices.

In the aftermath of the financial crisis, there were multiple large changes to the mortgage market, driven by regulators, institutions, law changes, and market forces, all of which were designed to avert a repeat of the shoddy mortgage lending that caused the crisis. The cumulative effect has been that it is more difficult to for prospective homeowners to access mortgage financing.²⁵ Many of the legal and regulatory changes are now being reconsidered. If the rules are reversed, the effect could be²⁶ to make millions more Americans able to get mortgages and bid for

²⁵ Urban Institute publishes a Housing Credit Availability Index that shows how difficult it is to qualify for a mortgage by measuring how much risk mortgage lenders are willing to take. The index measures the total default risk – the portion of loans being made that are likely to default. The Index shows that mortgage credit got much tighter after the crisis and kept getting tighter through 2013. It remains at record levels. Mortgage lenders are willing to take only half as much risk as they were in the early 2000s. This period, before the bubble, is a time generally considered to reflect reasonable mortgage lending standards. The index is available at: https://www.urban.org/policy-centers/housing-credit-availability-index

composition. The 2016 survey shows the median US homeowner had \$185,000 in home equity (in their primary residence) compared to \$60,000 in retirement savings for the median US household that had a retirement account. For more breakout of housing and retirement data from the Survey of Consumer Finances, see Laurie Goodman, Karen Kraul and Jun Zhu "What the 2016 Survey of Consumer Finances Tells Us about Senior Homeowners." Urban Institute, November 2017. Accessed at:

https://www.urban.org/sites/default/files/publication/94526 /what-the-2016-survey-of-consumer-finances-tells-us-aboutsenior-homeowners.pdf

²⁴ The estimate of retirement at 75 comes from a study by the website NerdWallet.com focusing on the college graduating class of 2015. It cites several causes for lack of retirement savings, including student loan debt and high rents. Arielle O'Shea, "NerdWallet's 2015 New Grad Retirement Report" Accessed at:

https://www.nerdwallet.com/blog/investing/millennial-gradretirement-age-is-75/

An Urban Institute study does not provide an estimated retirement age but finds that millennials will be worse off at age 70 than the generations that came before them. The Urban Institute study provides more comprehensive look at the trajectory of retirement savings and the role that home ownership plays.

Richard W. Johnson, Karen E. Smith, Damir Cosic and Claire Xiaozhi Wang, "What is the Retirement Outlook for

Millennials?" Urban Institute, March 27, 2018. Accessed at: https://www.urban.org/research/publication/retirement-outlook-millennials

²⁶ It is worth noting that the changes in regulatory policy may not be an important contributor to tighter mortgage credit availability. Urban Institute research shows that the key policy, the Ability-to-Repay / Qualified Mortgage (ATR / QM) rule, has had negligible effect, so the proposed changes to that rule may not make mortgages any more available. For more on the rule's effect, see Bing Bai, Laurie Goodman and Ellen Seidman "Has the QM Rule Made It Harder to Get a Mortgage?" Urban Institute, March 1, 2016. Accessed at: <u>https://www.urban.org/research/publication/has-qm-rulemade-it-harder-get-mortgage</u>

homes. This would likely increase home prices even further. At the same time, a shift to homeownership would likely relieve some of the upward pressure on rents.

Housing Costs Are Stifling Economic Growth and Costing Us Trillions.

The cities with the highest housing costs are also our most-productive, highest-wage cities. These high wages both drive the in-migration that creates housing scarcity and provide the incomes to fund the soaring cost of living. If housing shortages prevent people from moving to high-wage areas (or force current residents to move away), the country ends up poorer as a result.

Today, we have the same technology breakthroughs, but we do not see the boomtowns because there is nowhere for new arrivals to live in Silicon Valley, Boston, or Manhattan. A recent analysis estimated that

Steep housing prices hamstring city growth

• 25 largest metrpolotian statistical areas (MSA)

this failure to build housing in high-wage cities has reduced U.S. economic growth by half over the last 50 years. The authors estimate that reducing restrictions on home construction would cause GDP to increase by \$1.9 trillion (that is, raising wages by \$8,775 per American worker).²⁷



²⁷ These huge economic effects come from an economic model by Chang-Tai Hsieh and Enrico Moretti first released as a working paper in 2015 and published in 2017 with updated data.

The model assumes that if more housing was available in the cities with the highest incomes and highest productivity, more people would move there and being there would raise their income and productivity. The huge economic effects noted here are the result of surprisingly modest changes in the model. The authors change the housing regulations for just 3 cities (New York, NY, San Francisco, CA and San Jose, CA). Rather than eliminating the regulations, they just make them as restrictive as those in the median US city. With this

change, their model shows that New York would have ten times as many workers and San Francisco would have nearly seven times. The effect of so many Americans moving to high-productivity cities raises the country's GDP by almost nine percent and raises wages across the country. Obviously, these effects are extreme and hard to conceive, but it is powerful at demonstrating the amount of dislocation being caused by weak home construction. Chang-Tai Hsieh and Enrico Moretti, "Housing Constraints and Spatial Misallocation." May 18, 2017. Available at: <u>http://faculty.chicagobooth.edu/chang-</u> tai.hsieh/research/growth.pdf

Young Americans Are Delaying Moving Out on Their Own

Coming out of the financial crisis, the Census noted that Americans in their 20s were unusually likely to be living at home. Even as the job market has improved, this trend has persisted, and 2017 census data show that over one third of Americans 18-34 is living with parents – the single-most-common living arrangement for people that age.²⁸

One of the ways that young Americans are able to afford to move out is by living with roommates, and high housing costs are making this arrangement far more common than it used to be. Before the financial crisis, 21 percent of working-age (ages 23 to 65) Americans lived with a roommate, but by 2017, the share had grown to 30 percent. The rates run even higher than that in high-cost cities.²⁹

Living on your own is a symbolic marker of adulthood. At the same time that data show a delay in the age at which Americans live on their own, we see similar delays in marriage and childbearing, the traditional markers of adulthood. Delayed adulthood has all manner of economic and societal implications, and demographers are still studying the causes, but it seems likely that high housing costs are playing a role.

Sclerotic Construction Cripples Economic Recovery

Especially with Congress paralyzed, the main tool for fighting recessions in the United States is monetary policy. The Federal Reserve cuts interest rates to encourage borrowing; people borrow and then spend money; and that spending drives the U.S. out of recession and restores economic growth.

"Normally, a rapid rebound in home construction and related industries such as realty and home improvement helps fuel growth after a recession. Not this time. Builders would start construction on only about 600,000 private homes in 2011, compared with more than 2 million in 2005. " -- Former Fed Chair Ben Bernanke The Courage to Act

For consumers, the two most interest-sensitive buying decisions are the purchase of a car and a home. Typically, auto production and home building and remodeling are the engines of early-economic-cycle growth in the U.S. One reason that this economic recovery has been so weak was the failure of home construction to respond to interest rate cuts. If construction continues to be restrained, monetary policy will be less effective at pulling the U.S. economy out of recession.

https://www.census.gov/library/stories/2017/08/youngadults.html

²⁹ It should be noted that there is some overlap between these two claims because a working-age child living with their

²⁸ The share of 18-34-year olds living with parents rose from 26% in 2005 to 34.1% in 2015. The rates are highest in states in the New York City metropolitan area.

Jonathan Vespa, "Jobs, Marriage and Kids Come Later in Life." U.S. Census Bureau, August 2017. Accessed at:

working-age parents would show up as living with "roommates" in this data set. Still, the share living with roommates is growing faster than the share living with parents.

Lauren Bretz, "As Rents Rise, More Renters Turn to Doubling Up" Zillow Research, December 14, 2017. Accessed at: https://www.census.gov/library/stories/2017/08/youngadults.html

2018. Accessed at:

CAUSES

The shortage of housing construction truly is a paradox. We hoped for a simple factor to explain why we are not building millions of housing units that Americans desperately want and are willing to pay dearly for.

Sadly, we cannot find the ideal theory or anything particularly close. The causes of the crisis in the housing ecosystem are still poorly understood. But there are several theories that partially explain the situation.

All construction is a result of four Ls: land, lumber, labor, and loans. A shortage of home construction must relate back to a shortage of one or more of those inputs.

All construction is a result of four inputs, which we call four Ls: land, lumber, labor, and loans. A shortage of home construction must relate back to a shortage of one or more of those inputs. It is worth addressing each in turn.

We can address lumber first. We have seen price shocks for lumber after hurricanes, and, especially in recent months, resulting from the trade dispute with Canada over softwood lumber. These price increases are highly visible and certainly contribute to rising builder complaints about lumber prices.³⁰

³⁰ National Association of Home Builder surveys show

builders facing shortages of lumber and spiking prices

Paul Emrath, "Builders Starting to Report Shortages of

Framing Lumber" NAHB Eye on Housing, July 10, 2017.

Accessed at: http://eyeonhousing.org/2017/07/builders-

Ashok Chaluvadi, "Building Materials Prices and Labor Access

Top Challenges for 2018." NAHB Eye on Housing, January 16,

beginning around the same time as the Commerce Department announced new duties on Canadian lumber.

starting-to-report-shortages-of-framing-lumber/

However, lumber price shocks have tended to be short-lived. Lumber prices cannot be blamed for the consistent construction shortfall over the last decade. And "lumber" in the 4 Ls really means building materials. There is no

evidence in surveys, prices or academic research that we have seen persistent shortages of building materials broadly.31

For each of the other three factors, there is evidence that they have

been responsible for at least part of the persistent weak construction over the last ten vears. Buildable lots ("Land") are in shorter supply for a variety of reasons including people wanting to live in already-developed dense urban areas. Financing ("Loans") for marketrate developments was particularly tough to come by right after the financial crisis, and financing for affordable housing has gotten more difficult as federal housing programs are under attack. Finding enough skilled workers ("Labor") is an emerging problem, especially because the construction sector shows a curious lack of productivity growth.

http://eyeonhousing.org/2018/01/building-materials-pricesand-labor-access-top-challenges-for-2018/ ³¹In addition to the discussion of survey data in the "Builders Starting to Report Shortages of Framing Lumber" story in

note 30, there are price data from Department of Labor. The producer price index for "building material and supplies dealers" show steady annual growth in the low-single digits in the decade since the crisis.

[&]quot;Producer Price Index." Bureau of Labor Statistics. Accessed at: https://www.bls.gov/ppi/

Four Ls: Land

Theory: Zoning and land-use regulations are stifling construction

Zoning and land-use restrictions include height limits, minimum lot sizes, parking requirements and historic preservation. These are imposed by cities for all manner of reasons, but the effect on housing is always the same: to limit the number of homes that can be built on any given area of land.

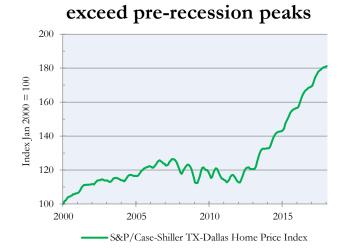
The first restrictions on construction were passed over 100 years ago to address overcrowding in tenements. The change in housing since then is simply stunning: before the passage of the Tenement House Act of 1901 requiring setbacks, windows and other changes, the population of Manhattan was higher than it is today. Although 90 percent of tenements were 5 stories or shorter (and there were almost no buildings taller than 12 stories), there were 1.85 million residents of Manhattan County, NY in 1900 versus 1.59 million in the 2010 census, almost none of whom live in buildings that are 5 stories or shorter.

As these regulations have proliferated, they have created a growing burden on developers. A body of research showed that housing prices before the financial crisis largely tracked the cost of new construction and that those cities with rising housing costs were cities where zoning and land-use regulations made

³² The seminal paper on housing costs and building regulations was "The Impact of Zoning on Housing Affordability" a working paper by Ed Glaeser and Joseph Gyourko published in 2002. Its findings have been replicated (especially before the financial crisis) and subsequent work has built upon the initial insight but the original paper fully lays out and supports the theory that land-use restrictions are suppressing construction and causing market failure in housing. obtaining land and obtaining permits increasingly expensive.³²

This tight linkage between strict housing regulations and rising housing costs has broken down in the post-crisis era. Famously lowregulation cities like Dallas are seeing significant housing cost increases for the first time.

Dallas home prices far



However, the basic fact that housing regulations constrain supply certainly contributes to the shortage of housing. Newer research continues to show the parts of the country with the most restrictive zoning (California and the northeast) continue to have unaffordable housing cost increases.³³

Edward Glaeser and Joseph Gyourko "The Impact of Zoning on Housing Affordability" NBER Working Paper 8835, National Bureau of Economic Research, March 2002. Accessed at: <u>https://www.nber.org/papers/w8835.pdf</u>

 ³³ Kyle F. Herkenhoff, Lee E. Ohanian and Edward C. Prescott.
 "Tarnishing the Golden and Empire States: Land-Use Restrictions and the U.S. Economic Slowdown," NBER Working Papers 23790, National Bureau of Economic Research, September 2017.

Theory: Demand has shifted to a different type of home

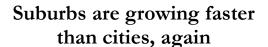
Consumer tastes have undoubtedly shifted, although the degree is sometimes overstated. Compared to a generation or even a decade ago, there is far more demand for living in walkable dense urban areas well served by transit. Unfortunately, only 10 percent of housing units are located in these areas, and in-fill development in already-developed areas is a different challenge than greenfield development on the edge of cities.

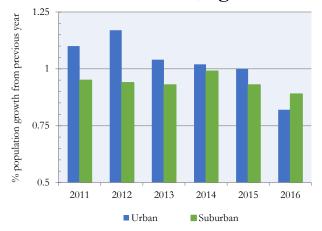
One of the obvious challenges of urban development is acquiring land. There are far fewer large intact parcels where a builder can build several hundred units at once and gain efficiencies of scale.

In addition, acquiring all the correct permits and approvals is more challenging in areas with lots of existing constituencies than in new municipalities geared for population growth. Even in areas where cities make large investments in mass transit, they often do not take corresponding steps to maximize the amount of housing that can be built along those transit lines.

This demand-shift theory is probably the most widespread, but it is not as powerful as many believe. The demand shift is often overstated: suburbs are growing faster than urban areas.³⁴ And supply has been better than realized: urban homebuilding is all in multifamily buildings, and multifamily construction has grown strongly since the crisis.

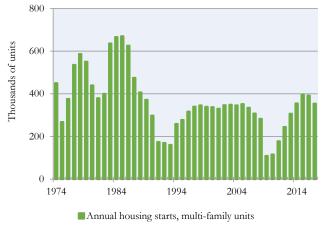
The fact that prices are rising so rapidly in urban areas shows housing supply is still falling





short of demand for urban living, especially along transit. We need to do better in developing urban areas, but it will not solve the whole problem. The rising prices in the exurbs shows that the supply challenge is more than just the shortage of urban land for development.

> Medium and high density construction recovered well



http://jedkolko.com/2016/03/25/neighborhood-data-show-that-u-s-suburbanization-continues/

³⁴ Economist Jed Kolko has done extensive writing on this topic. For the last several years, population growth has been shifting toward the suburbs. See, for example,

Theory: Environmental and other regulations are raising the cost of construction

In addition to housing-specific regulations that are generally enacted at the local level, builders face state and federal regulations on workplace safety, waste and pollution control, and endangered species protection. These regulations are generally increasing over time, and some builders blame them for rising costs.

With respect to broadly applicable national laws, it is hard to understand why homebuilding would be uniquely hurt as compared to an industry like automakers, which have complied with broad and targeted regulations but still have managed to keep the price of their product steady relative to incomes.

Theory: Technology and demand changes have enhanced the ability of local opponents to use tools to slow or stop housing development

Even if zoning, land-use, and environmental regulations were unchanged, it is clear that opponents of developments are getting more sophisticated about using these regulations to thwart construction. Even when a development complies with all applicable regulations and plans, neighbors can often use the threat or reality of a lawsuit to extract concessions or to make the process so laborious that the developer decides to walk away.

It is not clear if this is a result of social media and electronic communication tools making organizing easier. It may be shifting political values in the aftermath of the Supreme Court's *Kelo* decision that triggered a backlash against development steered or carried out by local governments.³⁵ Whatever it is, it appears to have common roots in other prosperous western countries. Great Britain,³⁶ Germany,³⁷ and Canada³⁸ are all facing housing shortages in their largest cities.

One of the countries that has been the most effective at providing housing is Japan. Tokyo, for example, is larger than any U.S. city, is already heavily built up and has essentially no open land on its perimeter. Despite that, Tokyo built more homes in 2014 than California, which has three times the population and almost one thousand times the land area.³⁹ Many analysts credit Tokyo's success to its embrace of by-right

³⁵ <u>Kelo v New London</u> was a 2005 supreme court decision that upheld the right of states and municipalities to use eminent domain to take property for economic development, even if the property was immediately transferred to a private developer. In the resulting public backlash, most states and the federal government changed laws to restrict the use of eminent domain in economic development.

https://en.wikipedia.org/wiki/Kelo_v_City_of_New_London# Public_reaction

³⁶ John Kay, "How to solve the UK housing crisis." Financial Times, November 8, 2017. Accessed at:

https://www.ft.com/content/d8854b1e-bf08-11e7-823bed31693349d3

³⁷ Jochen Möbert, "The German Housing Market in 2018." Deutsche Bank Research, January 26, 2018. Accessed at:

https://www.dbresearch.com/PROD/RPS_EN-

PROD/PROD000000000460528/The German housing mark et in 2018.pdf

³⁸ Benjamin Tal "The Housing Market: When the Fog Clears" CIBC Economics, November 14, 2017. Accessed at: <u>https://economics.cibccm.com/economicsweb/cds?TYPE=EC</u>

PDF&ID=4121

³⁹ The best overview of Tokyo's success in building housing is an excellent article by Robin Harding in the Financial Times: Robin Harding "Why Tokyo is the land of rising home construction but not rising prices." Financial Times, August 3, 2016. Accessed at: <u>https://www.ft.com/content/023562e2-54a6-11e6-befd-2fc0c26b3c60</u>

development.⁴⁰ By-right development limits or eliminates objections to developments that comply with all regulations and zoning and land-use plans. Bringing a similar approach to the U.S. could unleash more construction.

Four Ls: Loans (Financing)

Theory: Builders can't get enough construction financing to build all the homes they want

Although home mortgages (and securities backed by these mortgages) were the main source of bank losses during the financial crisis, acquisition, development & construction (AD&C) loans were also a major contributor, and were the primary cause of dozens of bank failures.⁴¹ In the aftermath, bank regulators and the banks themselves adjusted their guidelines for making these loans.⁴² The lending standards for construction loans became tougher and banks made fewer of them.⁴³ We have heard from builders that those who defaulted during the crisis are still frozen out of the lending market a decade later.

It is challenging to determine how much of the decline in construction loans is due to tougher terms from lenders and how much is due to less demand from borrowers. One sign that bank terms for construction loans may not be a key factor is that the large national builders, who can access the capital markets for financing, have not accelerated their market-share gains over the last decade.⁴⁴ If

https://www.federalreserve.gov/releases/h8/current/

⁴⁴ Builder Magazine collects data on market share by builder size, and National Association of Home Builders publishes analyses annually. The largest builders actually lost market share during the first years after the crisis, when their financing advantage would have been the greatest. Since then, they have resumed their steady growth in market share.

Stephen Melman, "Top Ten Publicly-Traded Builder Share Jumps in 2016." NAHB Eye on Housing, March 3, 2017.

⁴⁰ In addition to the Harding article above at note 39, for more depth and links to academic research on the reasons for Tokyo's success, see James Gleeson's post: "How Tokyo built its way to abundant housing"

jamesjgleeson.com, February 19, 2018. Accessed at: https://jamesjgleeson.wordpress.com/2018/02/19/howtokyo-built-its-way-to-abundant-housing/

⁴¹ FDIC's inspector general calls AD&C loans "the riskiest type of commercial real estate lending" and FDIC, in its retrospective of the financial crisis cites nontraditional mortgage products and AD&C loans as "the root of the problems that banks would experience during the crisis." <u>Crisis and Response, An FDIC History, 2008-2013.</u> Federal Deposit Insurance Corporation, November 2017. Accessed at: <u>https://www.fdic.gov/bank/historical/crisis/crisis-</u> complete.pdf

[&]quot;Acquisition, Development & Construction Loan Concentration Study" FDIC Office of Inspector General, October 2012. Accessed at:

https://www.fdicig.gov/sites/default/files/publications/13-001EV.pdf

⁴² Shortly after the financial crisis, the US and other major economies agreed to update capital requirements for banks. This update (called Basel III) requires banks to hold more capital against "high-volatility commercial real estate" (HVCRE) loans, which includes most AD&C loans for multifamily projects.

Congress has recently considered legislation to change the HVCRE loans, and in September 2017, the bank regulators proposed a rule to narrow the scope of HVCRE loans covered by the capital surcharge.

⁴³ Federal bank regulators collect and report data on loans by type from every bank. There are two sources for these data. The FDIC has historical data going back to the 1984 (thought before 2013, it does not include thrifts), but these data are only available quarterly with a lag. The Federal Reserve publishes weekly data, but they have only broken out AD&C loans since 2015.

By the FDIC data, total AD&C lending dropped from a peak of over \$600B (just banks) in 2008 to \$200B (banks and thrifts) in 2013. Total construction lending has since recovered to \$338 in fourth quarter 2017. FDIC data available at: <u>https://www.fdic.gov/bank/analytical/qbp/</u> Federal Reserve data available at:

dependence on bank financing was holding back small and medium builders, we would have expected them to become more vulnerable to competition from the large national builders.

Theory: Poor investment in housing subsidies is crippling affordable housing development

Along the income spectrum, the biggest shortfall in housing supply is affordable housing for low-income families. The number of units for very-low-income (below 80 percent of area median income) and extremely-lowincome (below 30 percent of area median income) families is actually declining as units are destroyed or converted faster than they are being built.⁴⁵

These units are built and maintained either by local public housing authorities or by private developers utilizing government subsidies. Almost all the federal funding streams that support these developments are stagnant in nominal dollars and falling once you adjust for inflation. Since 1980, Community Development Block Grants are down 80 percent in real dollars.⁴⁶ Since 1991, HOME grants are down 50 percent in real dollars.⁴⁷ and public housing is down over half in real dollars. As a result, over 250,000 of public housing units have been lost since the 1990s.⁴⁸

Funding for the low-income housing tax credit (LIHTC) is indexed to inflation, but the credits became less valuable due to the changes made in the tax bill, and they lost 15 to 20 percent of their value as a result (a portion of this loss was offset by a temporary expansion of LIHTC in the omnibus). ^{49,50}

Shrinking funding for affordable housing is the primary cause of the crisis facing very-lowincome families. Too many units are being lost because of inadequate maintenance and too few affordable units are being built. To compensate, cities are pushing inclusionary zoning, which requires developers to build and maintain affordable housing in exchange for allowing development of additional marketrate housing. These requirements can help, especially in high-cost areas, although they are miscalibrated, it could contribute to shortages in market-rate construction.



Accessed at: <u>http://eyeonhousing.org/2017/03/top-ten-publicly-traded-builder-share-jumps-in-2016/</u>
⁴⁵ See note 13

⁴⁶ Eugene Boyd, "Community Development Block Grants: Recent Funding History." Congressional Research Service, February 6, 2014. Accessed at:

https://www.hsdl.org/?view&did=750383

⁴⁷ Katie Jones, "An Overview of the HOME Investment Partnerships Program." Congressional Research Service, September 11, 2014. Accessed at:

https://fas.org/sgp/crs/misc/R40118.pdf

⁴⁸ "Policy Basics: Public Housing." Center on Budget and Policy Priorities, November 15, 2017. Accessed at: https://www.cbpp.org/research/policy-basics-public-housing ⁴⁹ LIHTC was not directly addressed in the tax bill, but the cuts to the corporate tax rate make the credits less valuable, and other changes have smaller effects on the value as well. All told, the price of LIHTC equity dropped from \$1.04-\$1.06 before the election to \$0.89 in December 2017. Data from Novogradac & Company's LIHTC Pricing Trends, Accessed at: <u>https://www.novoco.com/resource-</u> <u>centers/affordable-housing-tax-credits/data-tools/lihtc-</u> <u>pricing-trends</u>

⁵⁰ The Omnibus included a four-year 12.5% increase in amount of LIHTC available. This partially offsets the 15-20% loss in value from the tax bill.

Four Ls: Labor

Theory: Builders can not find enough skilled labor to turn blueprints into buildings

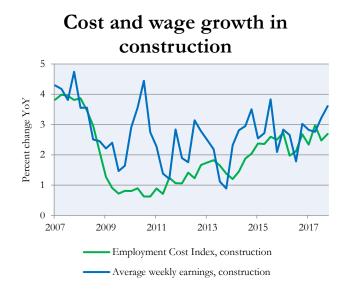
Employment in residential building plunged 46 percent from the pre-crisis peak to the bottom in 2011. Since then, about half of the losses have been recouped.⁵¹ The supply of labor was obviously not a constraint earlier in the postcrisis period, but it may be binding more tightly now. Recent surveys show builders cite a lack of skilled labor as a significant constraint to construction,⁵² and job openings for construction jobs are nearing all-time highs.⁵³ Overall construction employment (for all projects, not just housing) is approaching its pre-crisis peak.⁵⁴

The July 2017 responses showed all-time high readings on shortages of subcontractors and nearly all-time highs on shortages of employees. Curiously, the responses from 2006 at the peak of construction employment showed little shortage.

"Building Materials Prices and Labor Access Top Challenges for 2018." NAHB Eye on Housing. See note 30.

"Housing Market Index, Special Questions on Labor and Subcontractors' Availability" National Association of Home Builders Economics & Housing Policy Group, July 2017. Accessed at: <u>http://eyeonhousing.org/wp-</u>

content/uploads/2017/08/July2017-SplQ-REPORT-EXTERNAL-FINAL.pdf



However, not all signs suggest a tight labor market. We are not seeing acceleration in real wages for employees in construction,⁵⁵ which

⁵³ The Department of Labor's Job Openings and Labor Turnover Study (JOLTS) reports monthly data on the state of the labor market in each that sheds light on labor markets in 21 private industries including construction. The survey presents mixed evidence on the labor market in construction. Job openings in construction are approaching the all-time highs set in 2001 and 2007, and even as job openings have grown steadily since the crisis, the number of hires has not. The hiring rate is well below its pre-crisis level. This suggests that employers want more workers but are having a tough time finding them. However, in a tight labor market, we would also expect more people to quit their job to take better pay at another company. The quit rate in construction has risen but is well below the 2006 peak.

"Job Openings and Labor Turnover" Bureau of Labor Statistics. Accessed at: <u>https://www.bls.gov/jlt/</u> ⁵⁴ Construction employment peaked at 7.7 million in January 2007. It sunk to 5.4 million in January 2011 and has recovered to 7.2 million.

"Employment Situation" Bureau of Labor Statistics. Note 51 ⁵⁵ The government publishes several measures of wages. By all of them, wages in construction have been growing between two and three percent over the last several years. The monthly data on average hourly and weekly earnings (from the Employment Situation report – see note 51) show an upturn in the last few months, but these data are noisy,

⁵¹ According to payroll data from the Department of Labor, construction employment in residential building peaked at 1.02 million in April 2006. After dropping to 550,000 in January 2011, it has recovered to 785,000.

[&]quot;Employment Situation" Bureau of Labor Statistics. Accessed at: <u>https://www.bls.gov/ces/</u>

⁵² The National Association of Home Builders and Wells Fargo conduct a survey of home builders called the Housing Market Index. Occasionally, the survey includes questions on significant obstacles or on labor availability. The December 2017 survey showed "Cost/availability of labor" as the top concern, with 82% of builders reporting they faced this problem in 2017.

suggests that there is not so much demand for the existing workers that builders are paying up to hire them away. And because construction cannot be outsourced and does not require an advanced degree, it would seem to be wellsuited to tap into the pool of workers who have lost their jobs elsewhere as manufacturing and mining employment have shrunk.



More construction workers

One mystery that grows out of studying the labor market for building is the surprising lack of labor productivity increases for construction workers. Indeed, a cursory look suggests that labor productivity is actually falling. In 2017, we built as many homes as in 1992 but the construction workforce for these homes was 36 percent larger in 2017 than in 1992.56 This is especially surprising because the mix of home construction included far more multifamily units in 2017,⁵⁷ which would presumably be more efficient to build. Obviously, if we require more workers each year to build the same number of homes, labor will be a bigger and bigger problem.

and similar spikes in the past turned out to be transitory. The more stable series is the Employment Cost Index (ECI). The most recent ECI data point, first quarter of 2018, shows 2.6% growth for construction wages and salaries.

"Employment Cost Index" Bureau of Labor Statistics. Accessed at: https://www.bls.gov/ncs/ect/

⁵⁶ Residential building employment was 550,000 in 1992, when 1.2 million housing units were started. In 2017, 1.2 million housing units were started, but construction employment in residential building rose above 750,000. "Employment Situation" Bureau of Labor Statistics. See note 51.

As noted, this represents just a cursory look at the issue. There is a debate among economists as to what is driving these odd trends. Matthew Klein sums up the case for weak productivity, while a recent study from Bureau of Labor Statistics looks at productivity in construction across industries (i.e. beyond just housing) and finds construction

productivity is generally increasing, despite the topline numbers.

Klein, Matthew C "More on America's unproductive homebuilding sector." Financial Times Alphaville, May 25, 2017. Accessed at:

https://ftalphaville.ft.com/2017/05/25/2189204/more-onamericas-unproductive-homebuilding-sector/

Svelkauskaus, Leo, Samuel Rowe, James D Mildenberger, Jennifer Price, Arthur Young, "Measuring Productivity Growth in Construction." Monthly Labor Review, Bureau of Labor Statistics, January 2018. Accessed at:

https://www.bls.gov/opub/mlr/2018/article/pdf/measuringproductivity-growth-in-construction.pdf

⁵⁷ Units in multifamily (i.e. structures with 5 or more housing units) buildings have accounted for 30-35% of housing starts in 2012-2107 compared to 15-20% in the decade leading up to the financial crisis.

"New Residential Construction" Census Bureau. See note 8.

POLICY IMPLICATIONS

We need to continue to develop policy recommendations for the full report, but the goal is clear: we need to build millions more housing units.

To do this, we will have to overcome significant obstacles. Power is fragmented across federal, state, and local governments, and housing programs are very siloed. Nobody is looking at the ecosystem as a whole. But the work is critically important to America's economy and America's families.

<u>Photo Credits</u>

Front cover: "<u>DSCF0764</u>" by <u>Bezalel Ben-Chaim</u> is licensed under <u>CC BY 2.0</u> / Blue text box inserted over original Page 2: "<u>Estate agents dream</u>" by <u>Andy D'Agorne</u> is licensed under <u>CC BY-NC-ND 2.0</u> Page 7: "<u>Portlandia. March 2018</u>" by <u>drburtoni</u> is licensed under <u>CC BY-NC-ND 2.0</u> Page 8: "<u>New houses on Barry Island</u>" by <u>World of Oddy</u> is licensed under <u>CC BY-NC-SA 2.0</u> Page 14: "<u>panohz</u>" by <u>cermivelli</u> is licensed under <u>CC BY-NC-ND 2.0</u> Page 21: "<u>Tractors</u>" by <u>Jonathan Khoo</u> is licensed under <u>CC BY-NC-ND 2.0</u> Back cover: "<u>green suburbs</u>" by <u>Pierre Metivier</u> is licensed under <u>CC BY-NC 2.0</u>

