

July 2016 Housing Commentary



Urs Buehlmann

Department of Sustainable Biomaterials

Virginia Tech

Blacksburg, VA

540.231.9759

buehlmann@gmail.com

and

Al Schuler

Economist (retired)

Princeton, WV

Table of Contents

Slide 3:	<u>Housing Scorecard</u>
Slide 4:	<u>New Housing Permits, Starts, & Completions</u>
Slide 5:	<u>New and Existing House Sales</u>
Slide 5:	<u>New Construction Data</u>
Slide 6:	<u>Conclusions</u>
Slide 7:	<u>European Construction Markets</u>
Slide 8-49:	<u>Additional Comments&Data</u>
Slide 50:	<u>Disclaimer</u>

This report is a free monthly service of Virginia Tech. Past issues can be found at: <http://woodproducts.sbio.vt.edu/housing-report/>

To sign up for the report please email buehlmann@gmail.com

July 2016

Housing Scorecard

	M/M	Y/Y
Housing Starts	△ 2.1%	△ 5.6%
Single-Family Starts	△ 0.5%	△ 1.3%
Housing Permits	▽ 0.1%	△ 0.9%
Housing Completions	▽ 8.3%	△ 3.2%
New Single-Family House Sales	△ 12.4%	△ 31.3%
Existing House Sales ¹	▽ 3.2%	▽ 1.6%
Private Residential Construction Spending	△ 0.3%	△ 1.9%
Single-Family Construction Spending	▽ 0.2%	△ 1.7%

M/M = month-over-month; Y/Y = year-over-year

Housing Data

	July	June	July 2015
Total permits*	1,152,000	1,153,000	1,142,000
Single-family permits	711,000	738,000	649,000
Multi-family 2-4 unit permits	30,000	29,000	30,000
Multi-family ≥ 5 unit permits	411,000	386,000	418,000
Total starts	1,211,000	1,186,000	1,147,000
Single-family starts	770,000	766,000	760,000
Multi-family 2-4 unit starts**	8,000	20,000	11,000
Multi-family ≥ 5 unit starts	433,000	400,000	376,000
Total completions	1,026,000	1,119,000	994,000
Single-family completions	743,000	746,000	639,000
Multi-family 2-4 unit completions**	8,000	9,000	11,000
Multi-family ≥ 5 unit completions	275,000	364,000	344,000

* All data are presented at a seasonally adjusted annual rate (SAAR).

** US DOC does not report 2-4 multi-family starts and completions directly, this is an estimation.

Source: U.S. Department of Commerce-Construction: www.census.gov/construction/nrc/pdf/newresconst.pdf; 08/16/16

Housing Data

	July	June	July 2015
New single-family sales	654,000	582,000	498,000
Median price	\$294,600	\$310,500	\$296,000
Existing sales ^a	5,390,000	5,570,000	5,480,00
Median price	\$244,100	\$231,800	\$234,000
Private Residential Construction	\$445.5 billion	\$444.0 billion	\$437.3 billion
SF construction	\$238.1 billion	\$238.5 billion	\$234.1 billion
MF construction	\$59.8 billion	\$60.1 billion	\$49.9 billion
Improvement construction ^b	\$147.5 billion	\$145.5 billion	\$153.3 billion

^a NAR®

^b The US DOC does not report improvements directly, this is an estimation. All data is SAAR and is reported in nominal US\$.

Sources:

NAR® www.realtor.org/topics/existing-home-sales; 08/24/16

U.S. Department of Commerce-Construction: www.census.gov/construction/nrs/pdf/newressales.pdf; 08/23/16

U.S. Department of Commerce-C30 Construction: www.census.gov/construction/c30/pdf/privsa.pdf; 09/01/16

Conclusions

Housing remains relatively weak (historical speaking) with homeownership rate falling to lowest rate in 50 years. It appears that "free money" cannot overcome rising home prices, changing preferences (to renting), poor income growth, and tight credit for first time buyers. Global uncertainty, terrorism, and economic slowdowns (China, Brazil) are not helping either, mostly by preventing businesses to invest.

June's housing data is a mixed bag – total starts up by 2.1% (m/m), single family homes up by 0.5%, permits down by 0.1%, completions down by 8.3% (m/m), and existing home sales were down by 3.2% from the month before.

With 51% of all worker's in the U.S. making less than \$30,000/year, it's hard to envision a scenario where the U.S. housing market returns to "normal" anytime soon. Slowing economies in China, Brazil, among others, and continuing problems in Europe all add up to numerous negative macro-factors endangering a robust housing recovery, in particular:

- 1) A constrained quantity of well-paying jobs being created;
- 2) a tepid economy;
- 3) declining real median annual household incomes;
- 4) strict home loan lending standards – though loosening with new programs; and
- 5) slowing world economy; and
- 6) global uncertainty

June 2016

EU Housing Scorecard

		M/M	Y/Y
Production in Construction ^A	EU 28	0.0% ^s	△ 0.6% ^s
	EU 19	▽ 0.3% ^s	▽ 0.6% ^s
	Germany	▽ 0.5%	▽ 0.3%
	France	▽ 0.2%	▽ 1.5%
	UK	▽ 0.9% ^p	▽ 6.1% ^p
	Spain	△ 0.8% ^{ps}	△ 5.2% ^p
Building permits (m ² floor) ^A	EU 28	-.-	-.-
	EU 19	▽ 1.0% ⁽⁰²⁾	△ 30.0% ^{s(02)}
	Germany	△ 2.5%	△ 14.7%
	France	△ 1.4% ^s	▽ 3.0% ^e
	UK	-.-	-.-
	Spain	▽ 18.1 ^{s(02)}	△ 50.6 ^{e(02)}

M/M = month-over-month; Y/Y = year-over-year

Source: Eurostat (<http://ec.europa.eu/eurostat/web/short-term-business-statistics/data/main-tables>;
09/07/16)

^A see <http://ec.europa.eu/eurostat/web/short-term-business-statistics/overview/sts-in-brief>

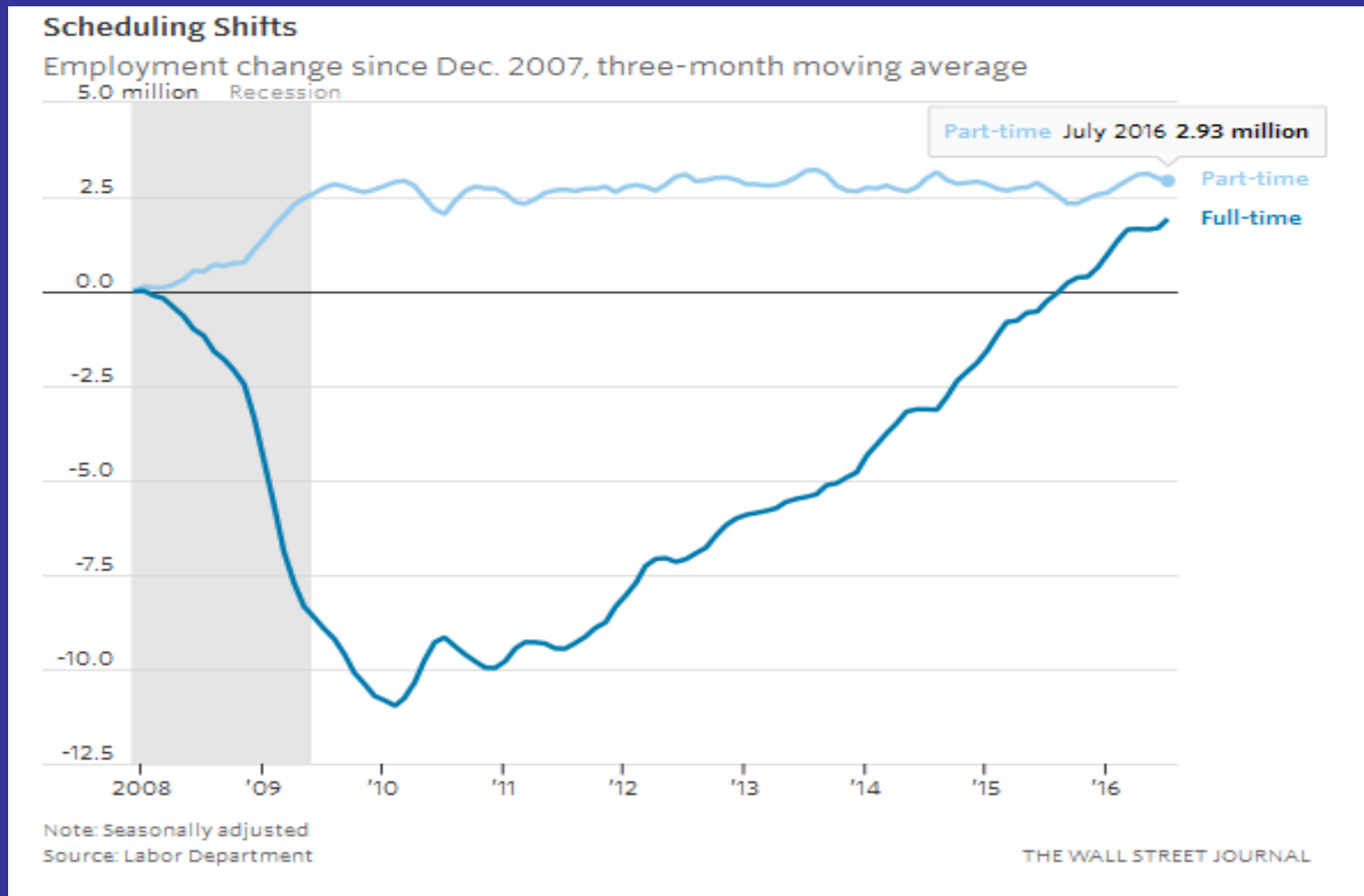
^e estimate ^s Eurostat estimate ^p provisional -.- no data available ⁽⁰²⁾ February data

Return TOC

Housing comments – July 2016

- *July starts were up 2.1% to 1.211 (SAAR) - SF at 770,000 (SAAR) – up 0.5% - MF 36% of total – year over year, total up 5.6% while SF up 1.3% - not too spectacular*
- Home ownership rate fell to 63.5% in QTR1 2016 – **lowest ownership rate in 50 years!** Financing problems; changing preferences (to renting); and rising home prices - problem for 1st time buyers
- *Resale market at highest level since 2010 - 5,570,000 (annual rate)*
- **Latest jobs report was good (+255,000) - unemployment remained at 4.9% - two good reports in succession** – however, 51% of all workers make less than \$30,000/year – can't buy a house on that!
(<https://www.ssa.gov/cgi-bin/netcomp.cgi?year=2014>)
- The Fed capitulated again – doesn't know what to do, so they do nothing. Soon, we will join Germany and Japan with negative real interest rates . Low rates aren't the answer to weak economies.
- The unemployment problem (and weak demand) can be addressed by reducing welfare and get government out of the way of innovation and business investment. Innovation creates jobs – government doesn't.
- **The economy continues to sputter – average GDP growth since the recession has been 2.1% - weakest since WWII. Business investment has been weak for past four years – that means weak productivity growth – weak income growth – weak GDP – and, that translates to lackluster job creation, and, an unimpressive housing market.**

**Before you get too excited about the recent jobs reports, read this:
New part time jobs still outnumber full time by 1 million since the
recession – also, 51% of workers make less than \$30,000/year
Key reason why housing starts remain weak!**



Housing trends – getting better, finally, but this market is not your typical market according to recent studies

(<http://www.wsj.com/articles/lopsided-housing-rebound-leaves-millions-of-people-out-in-the-cold-1470852996>)

1. 1st time buyers are missing as tougher mortgage rules, student debt, low income jobs force many to rent. This isn't expected to change in the near future.
2. Although prices have almost returned to pre-recession levels, this is due to a combination of weak supply; middle income buyers are missing as “well healed” buyers with cash and good credit make up the bulk of home buyers over past 6 years; builders have responded by focusing on this market – so they build bigger homes (which are more expensive).
3. Home ownership is at the lowest level in 51 years as more people turn to renting – some are forced to rent while others prefer renting over ownership
3. These trends have serious long term consequences if they continue.
 - “homeownership is the primary source of wealth for middle income Americans as equity protects them from rising rents and inflation, provides source of money for college tuition, retirement saving and wealth creation” (see study for more details). Frustration of middle income Americans was a key component of the popularity of Bernie Sanders and Donald Trump. Over time, these trends could impact the economy as a significant segment of our population remain renters and we know from studies that home owners, on average, are better off economically than renters.

Some good news – although starts and sales of homes is lackluster, that means many people are staying put – i.e., fixing up their homes instead of moving. So, remodeling/renovation expenditures may be the best opportunity in 2017?

(<http://finance.yahoo.com/news/spending-home-improvement-set-pick-165700348.html>)

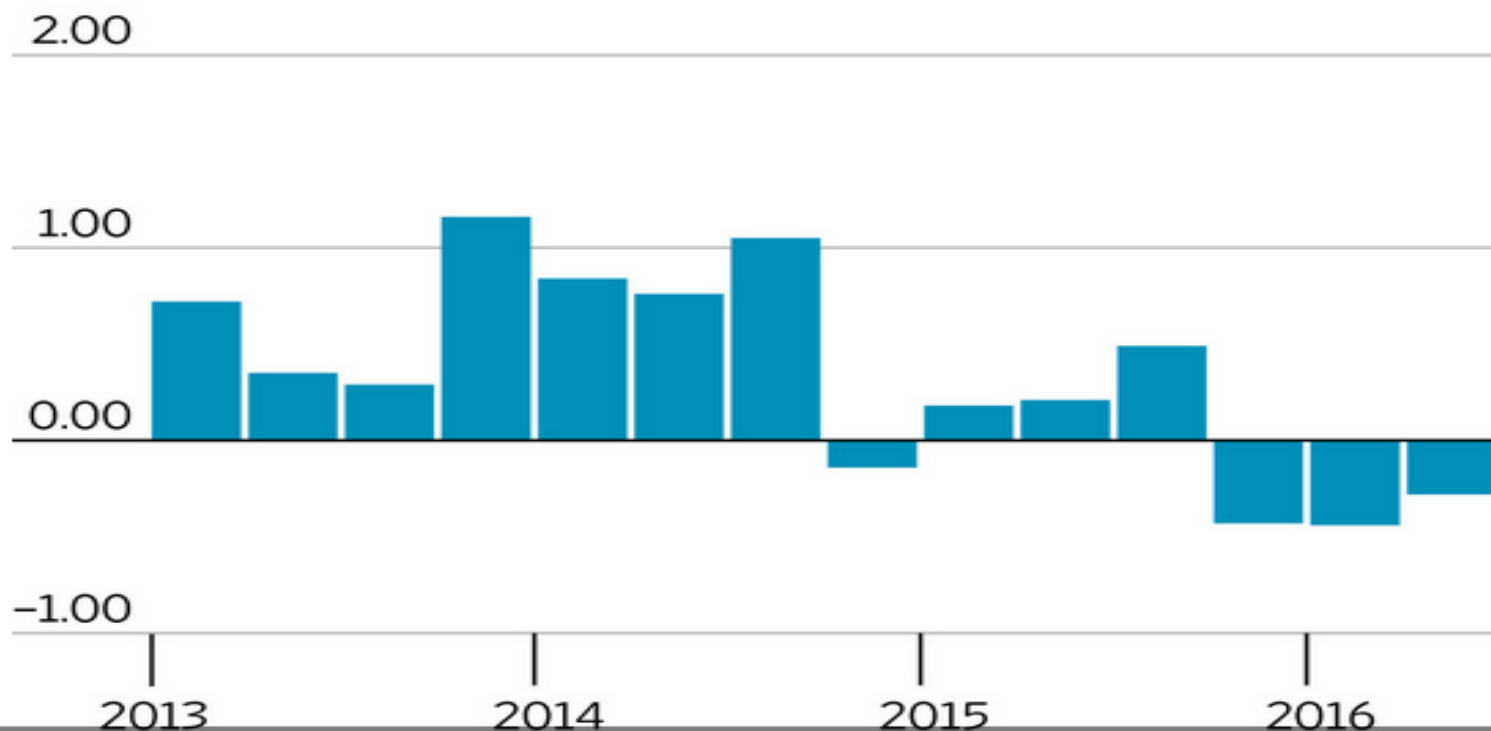
Comments on the economy – it continues to sputter – propped up by consumer spending and cheap money from the FED - but, business investment remains weak as Washington gridlock and uncertainty discourages investment needed to create jobs.

Innovation – Productivity

Business investment drives productivity – which drives GDP – key reason why GDP growth remains weak. That means income growth will remain weak and housing will continue to underperform.

Business Isn't Investing

Contribution to quarterly GDP, in percentage change, from fixed nonresidential investment, 2013-July 2016



Source: Bureau of Economic Analysis

What's the answer? We need new direction and we have a chance to begin that process in November.

Americans need to “do their research” – “due diligence”, and decide who and which party can lead this country forward. I use to be a Republican, but now I'm an independent. Problem(for me) - America is a two party system, And that's probably best. Look to Europe and Canada to see some of problems (gridlock) with multiple parties. Of course, two party system in USA has given us political gridlock For past 8 years. Difficult times but we will persevere because this is still the greatest country in the World . That said – we have lots of problems, many of which we created ourselves.

We need to do better job in investing in our future – consume less (for now) , and invest more on infrastructure, research, education, The tax system is broken – let's fix it!

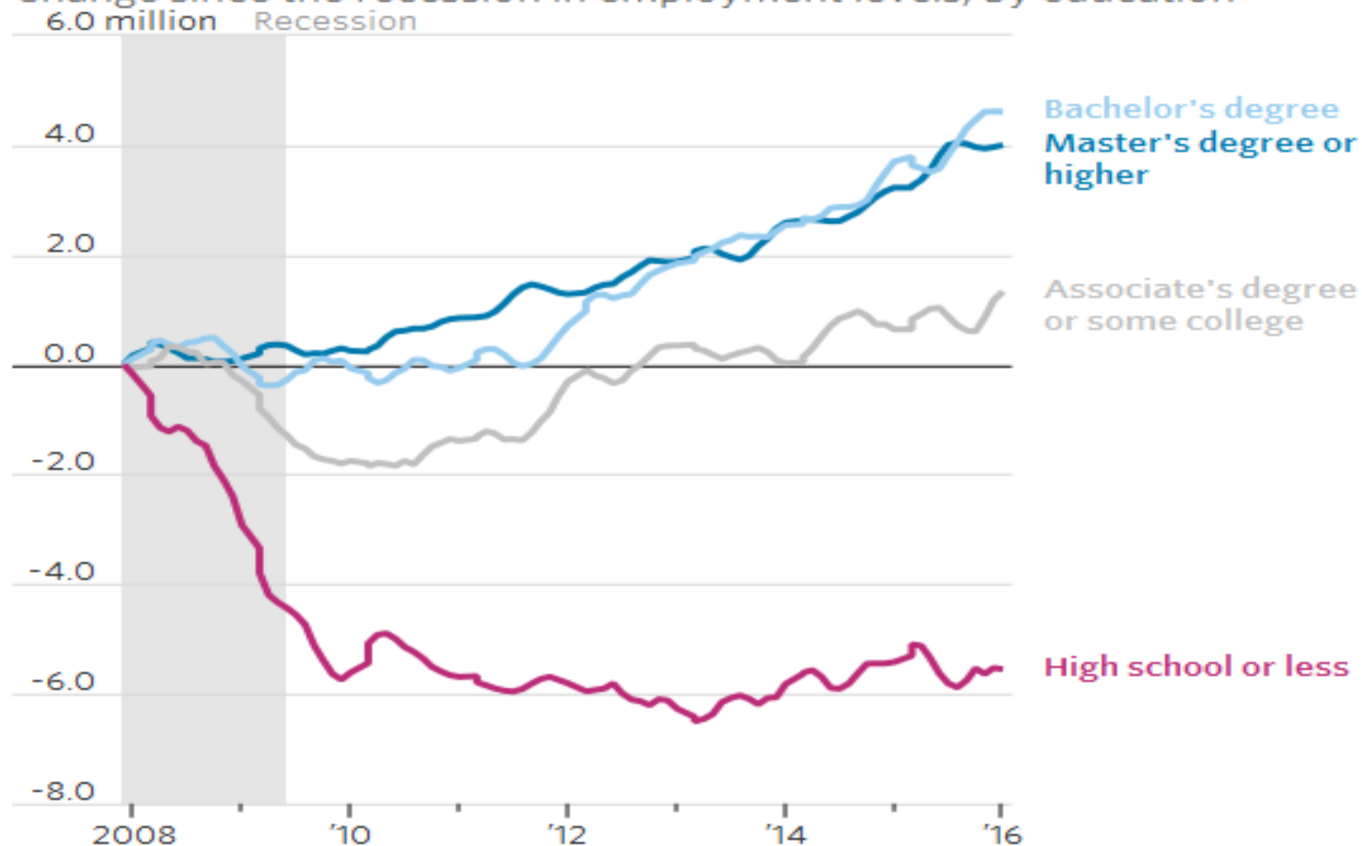
Education (K-12) is a mess – let's fix it!

Higher education is too expensive for most people!

Yet, we know more education is better

Jobs in the Recession and Recovery Differed by Education Level

Change since the recession in employment levels, by education

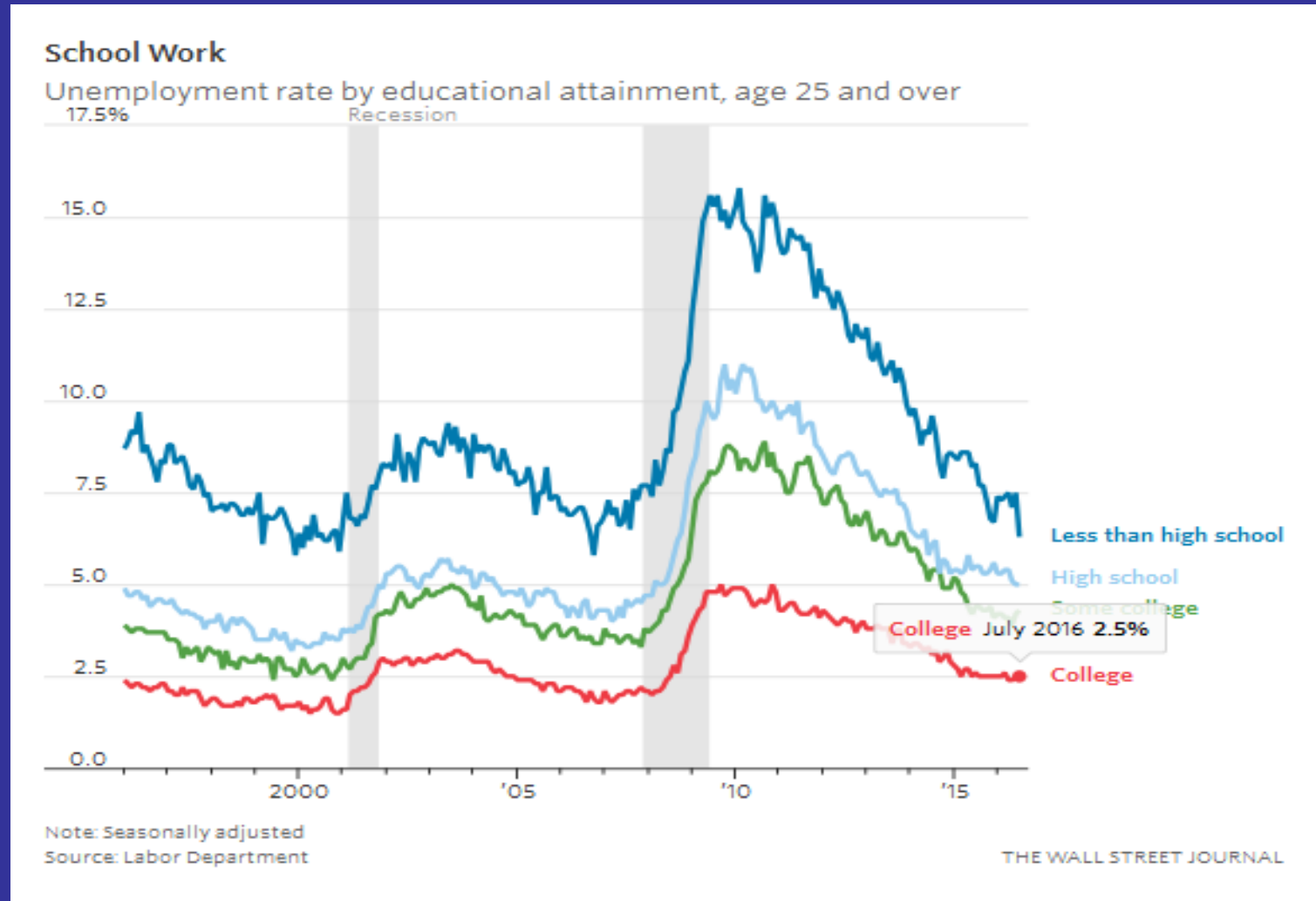


Note: Based on a four-month average of seasonally-adjusted data

Source: Georgetown analysis of Census Bureau data

THE WALL STREET JOURNAL

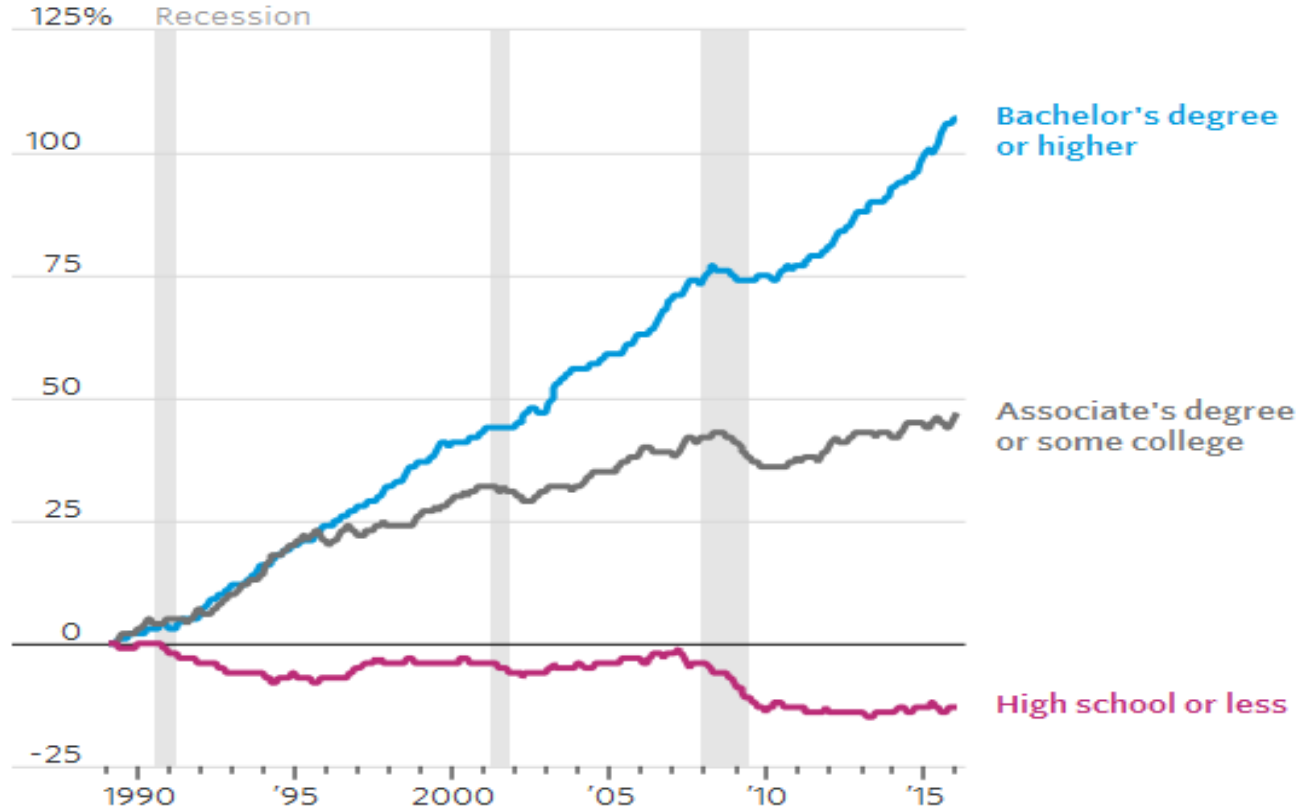
Education: Best way to improve productivity and incomes --- education improves your chances of staying out of the unemployment line (and buying a house)



Education is best route to employment and quality of life

College Workers Are the Biggest Share of the Job Market

Percentage change since 1989 in employment, by education level

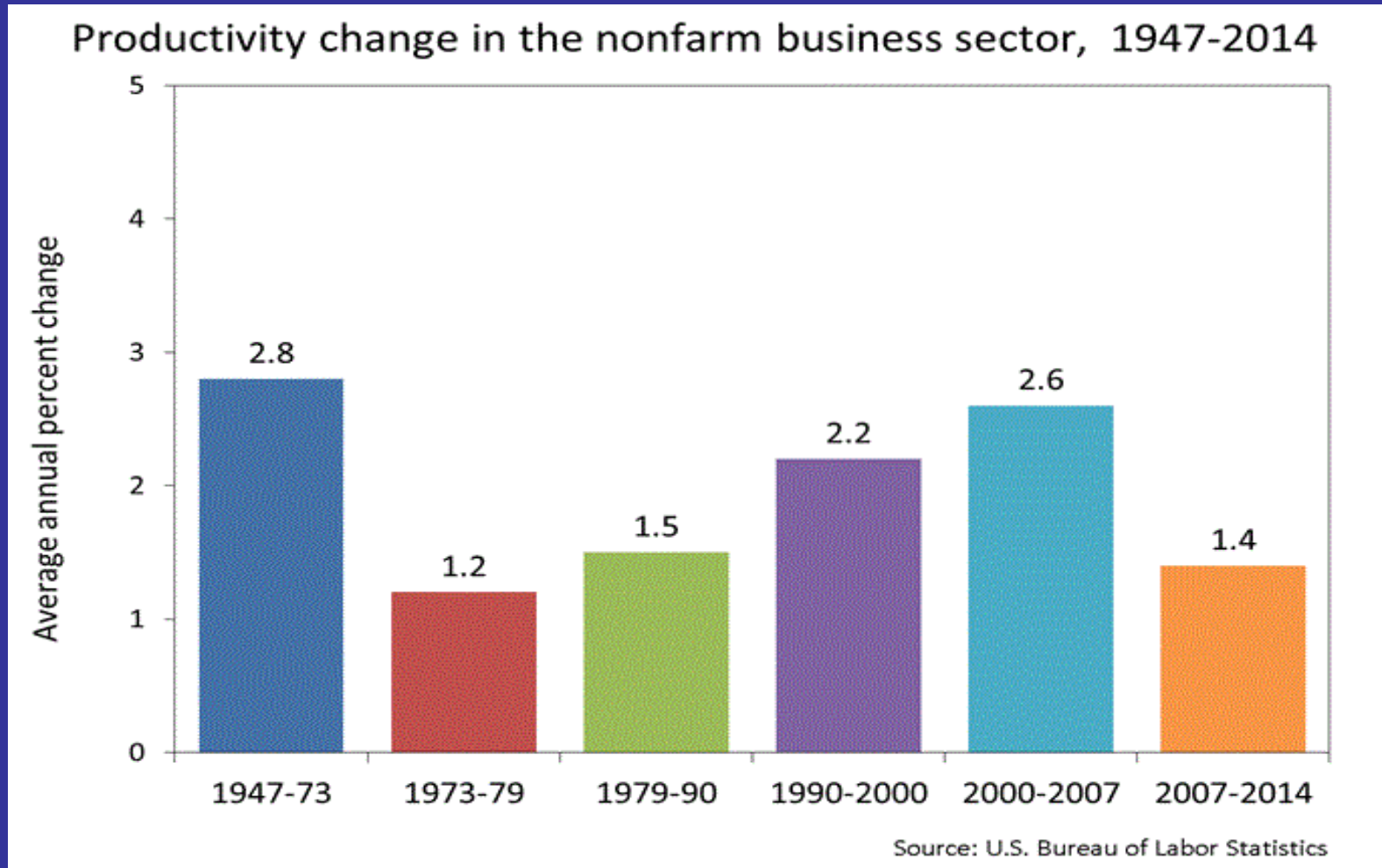


Note: Based on a four-month average of seasonally-adjusted data
Source: Georgetown University analysis of Census Bureau data
THE WALL STREET JOURNAL

Also, we need to invest more (and consume less) to become more competitive, create better paying jobs -

GDP = number of workers multiplied by productivity (real GDP/worker)

Innovation and entrepreneurship is key to increasing productivity



What happens when innovation is missing!

Dismal productivity growth - - worst Performance for US economy since the 1980's when we experienced back to back recessions.

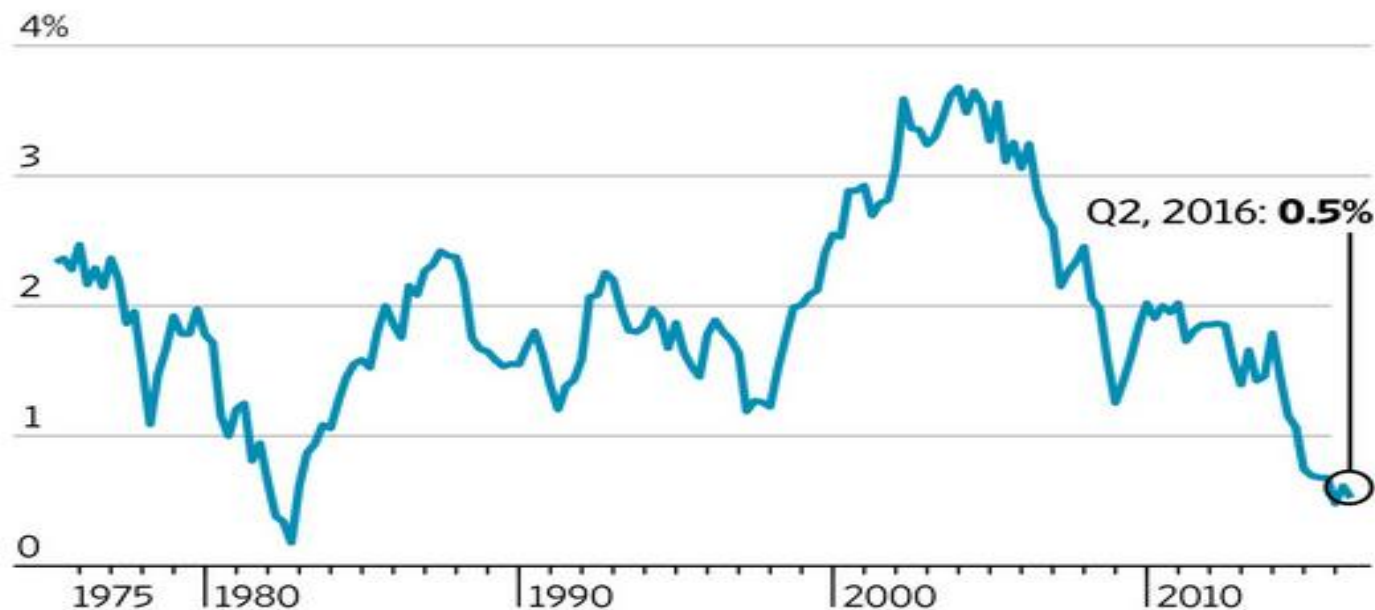
(PS - I understand that productivity measurement is a problem as new products/services quality is difficult to measure so maybe we are underestimating real productivity?)

Plunging Productivity

Gains in U.S. worker productivity have slowed dramatically since the early 2000s, a trend that could restrain the economy's future growth.

Labor productivity (output per hour)

Percentage change from previous quarter at annual rate,
5-year moving average



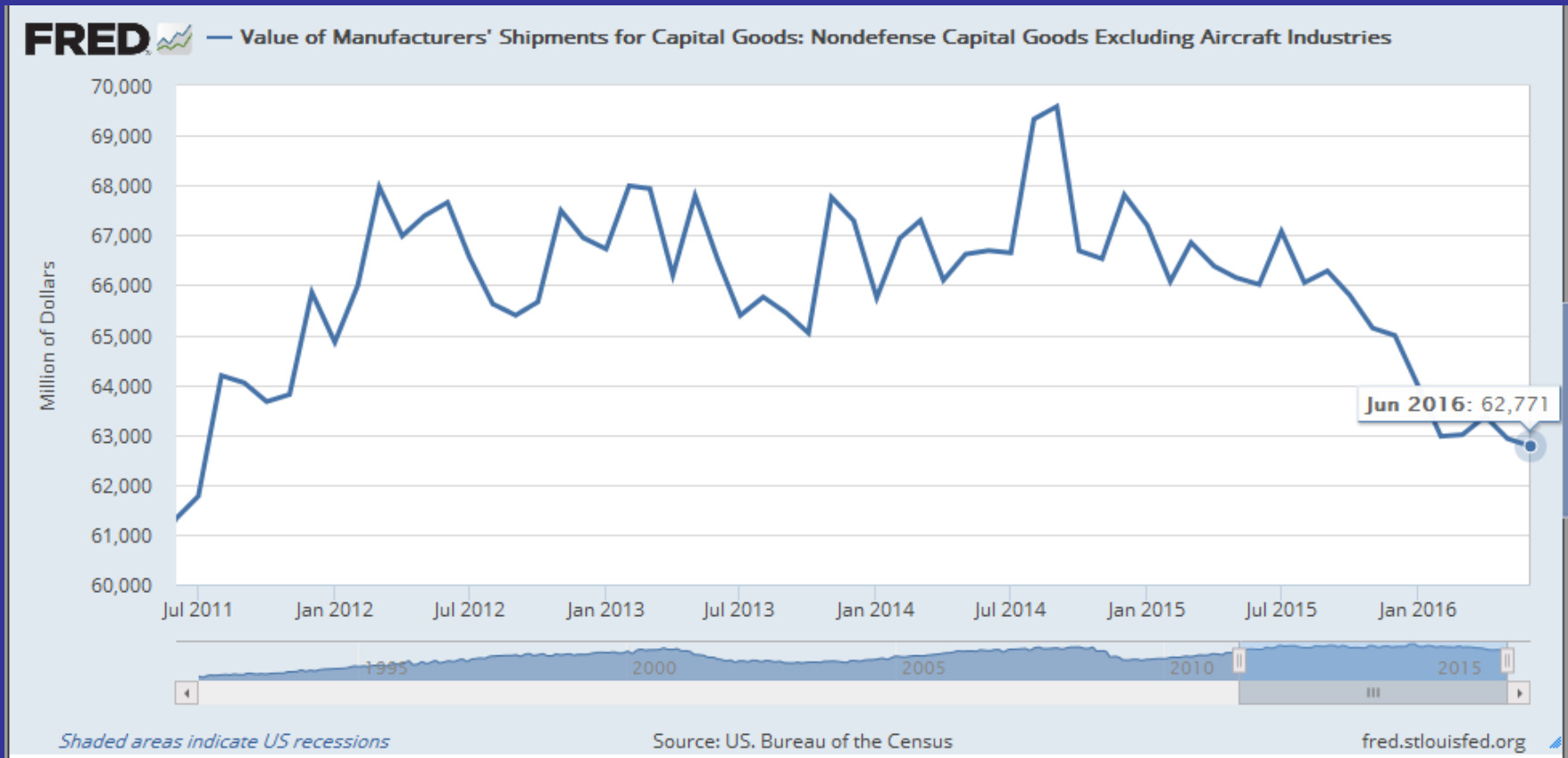
Note: Figures are seasonally adjusted

Source: Labor Department

THE WALL STREET JOURNAL.

Source: WSJ (<http://www.wsj.com/articles/u-s-productivity-dropped-at-0-5-pace-in-the-second-quarter-1470746092>)

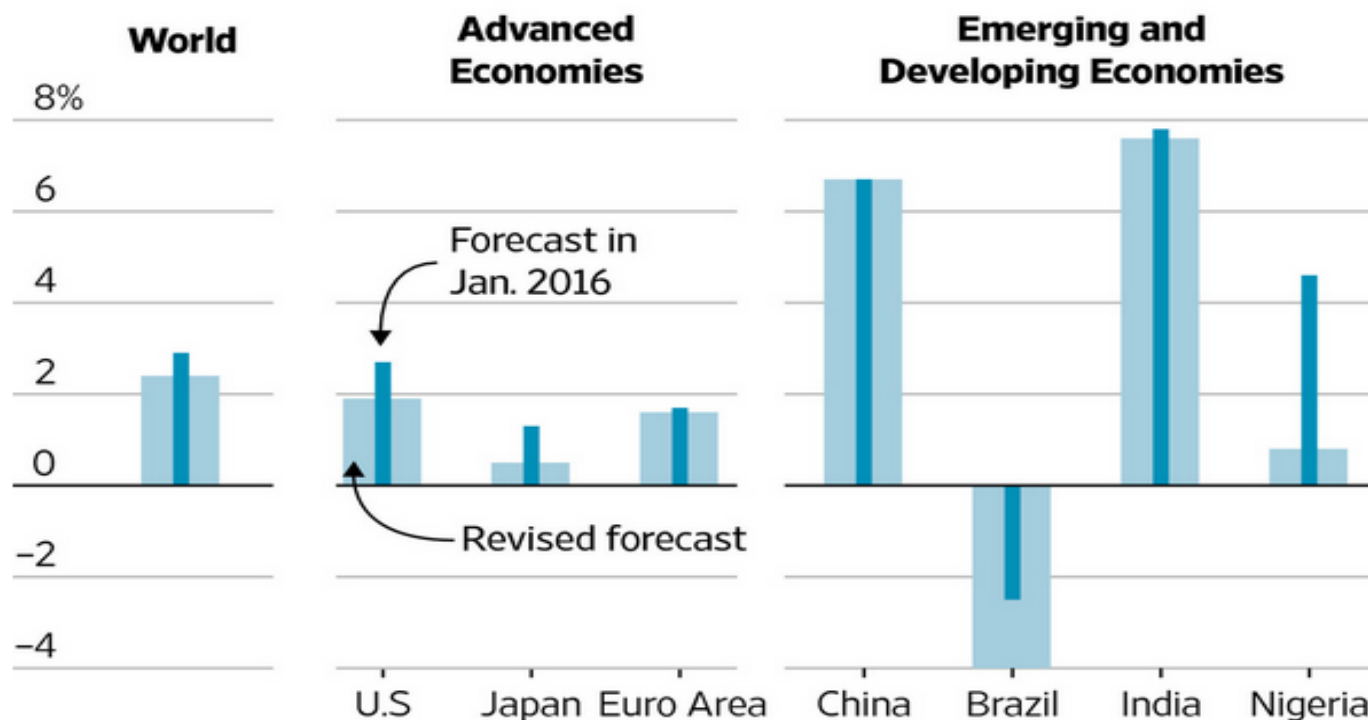
Capital spending has been trending lower for past 4 years. Why? Companies not confident of future – uncertainty re: tax code, regulations; Washington grid lock!



World Bank downgrades growth (again) in 2016 to 2.4% as problems in developed and developing world mount

Souring Outlook

The World Bank revised down its forecasts for the global economy, warning that the weaker outlook raised the risk of a sharp slowdown ahead.



Source: World Bank

THE WALL STREET JOURNAL.

U.S. 2nd Qtr 2016 Economic growth a dismal 1.2% - since last September, the economy has averaged meager 1% growth!!!!

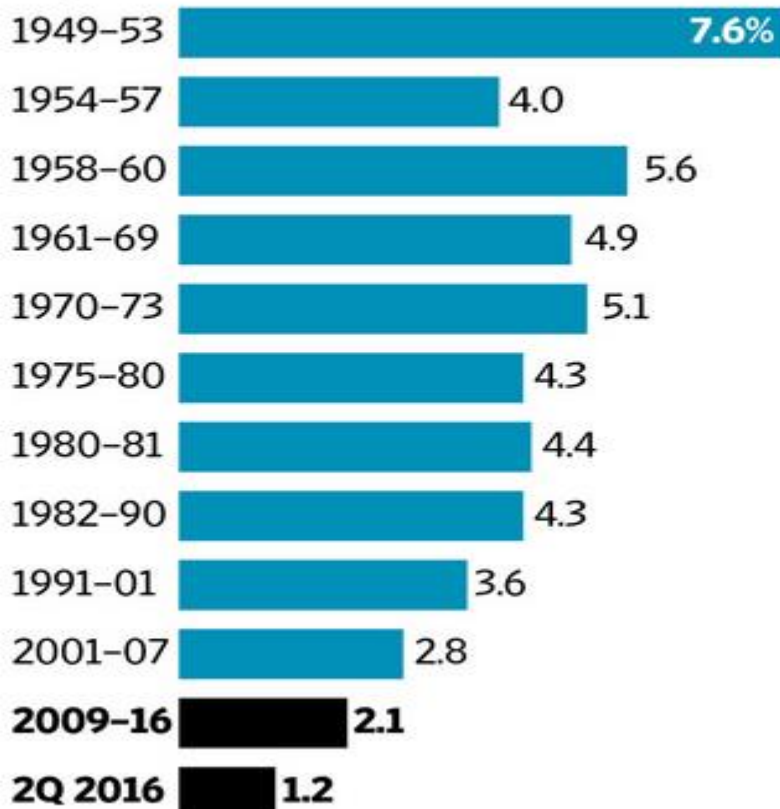
- (1) Slowing world economy (weaker China, European, and South American growth)
- (2) Stronger dollar will reduce exports and increase imports – negative impact on manufacturing jobs which is key to income growth in USA
- (3) Political stalemate/weak leadership, terrorism, currency wars, growing national debt, ...
- (4) Weak income growth and continuing high “real unemployment”



Weakest recovery since WWII

Underwhelming Growth

Average GDP growth during each expansion, at an annualized rate



Note: Figures are adjusted for inflation and seasonality
Source: Commerce Department

Notable contributions to Q2 growth

CONSUMER SPENDING
+2.83 pct. pts.

NET TRADE
+0.23 pct. pts.

GOVERNMENT SPENDING
-0.16 pct. pts.

RESIDENTIAL INVESTMENT
-0.24 pct. pts.

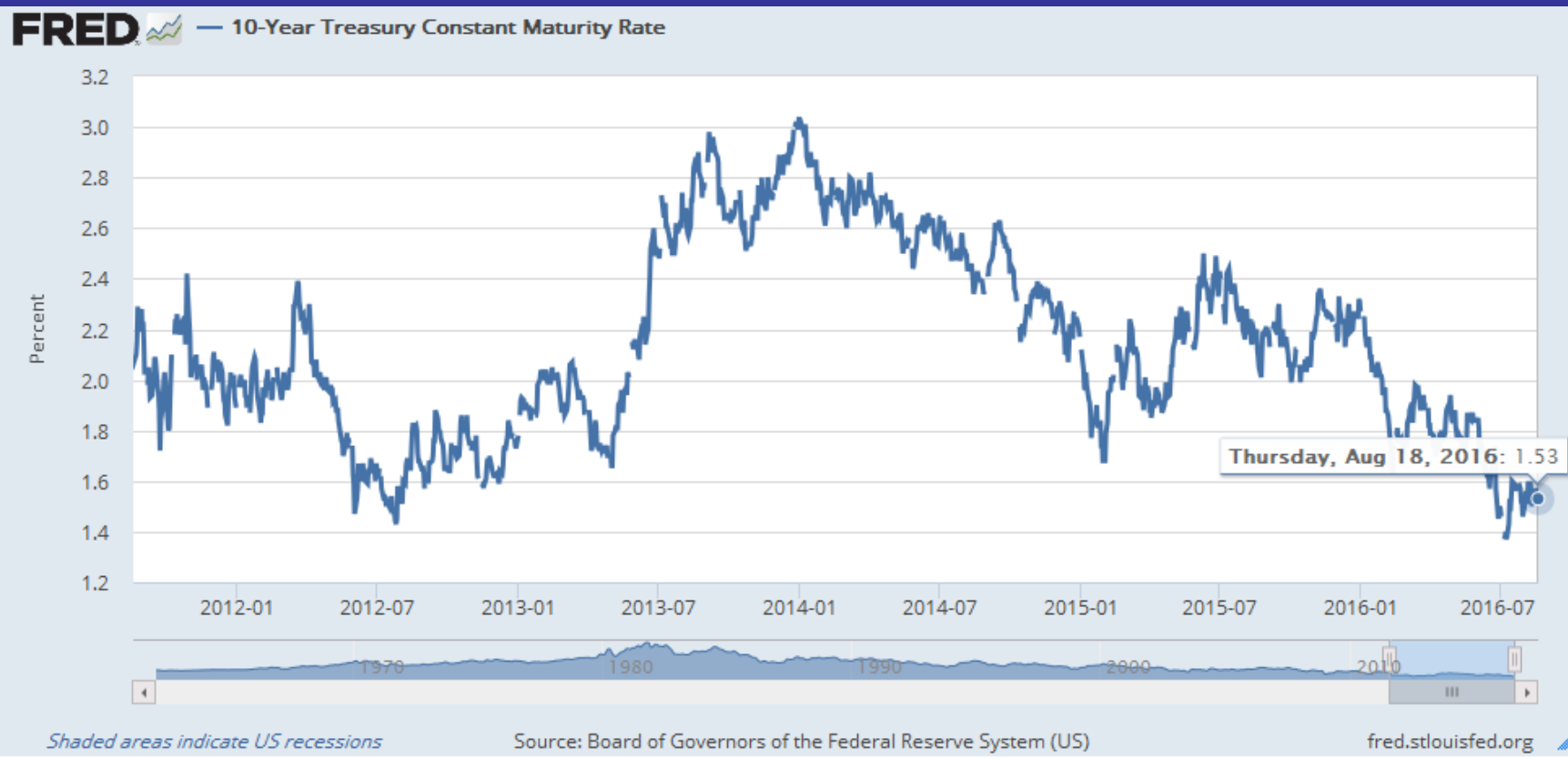
BUSINESS INVESTMENT
-0.28 pct. pts.

CHG. IN PRIVATE INVENTORIES
-1.16 pct. pts.

THE WALL STREET JOURNAL.

10 year U.S. Treasuries - - lower interest rates are not the answer!

Problems – lowest interest rates in decades. Some due to “flight to safety” (drives bond yields lower), but, weak demand is the main problem. Monetary policy can’t do it all – **we need responsible leadership from Washington, and that is non-existent.** Furthermore, the yield curve (difference between short and long term rates), is flattening. That suggests a recession could be coming soon. (http://fortune.com/2016/07/06/deutsche-bank-recession/?xid=yahoo_fortune&yptr=yahoo)

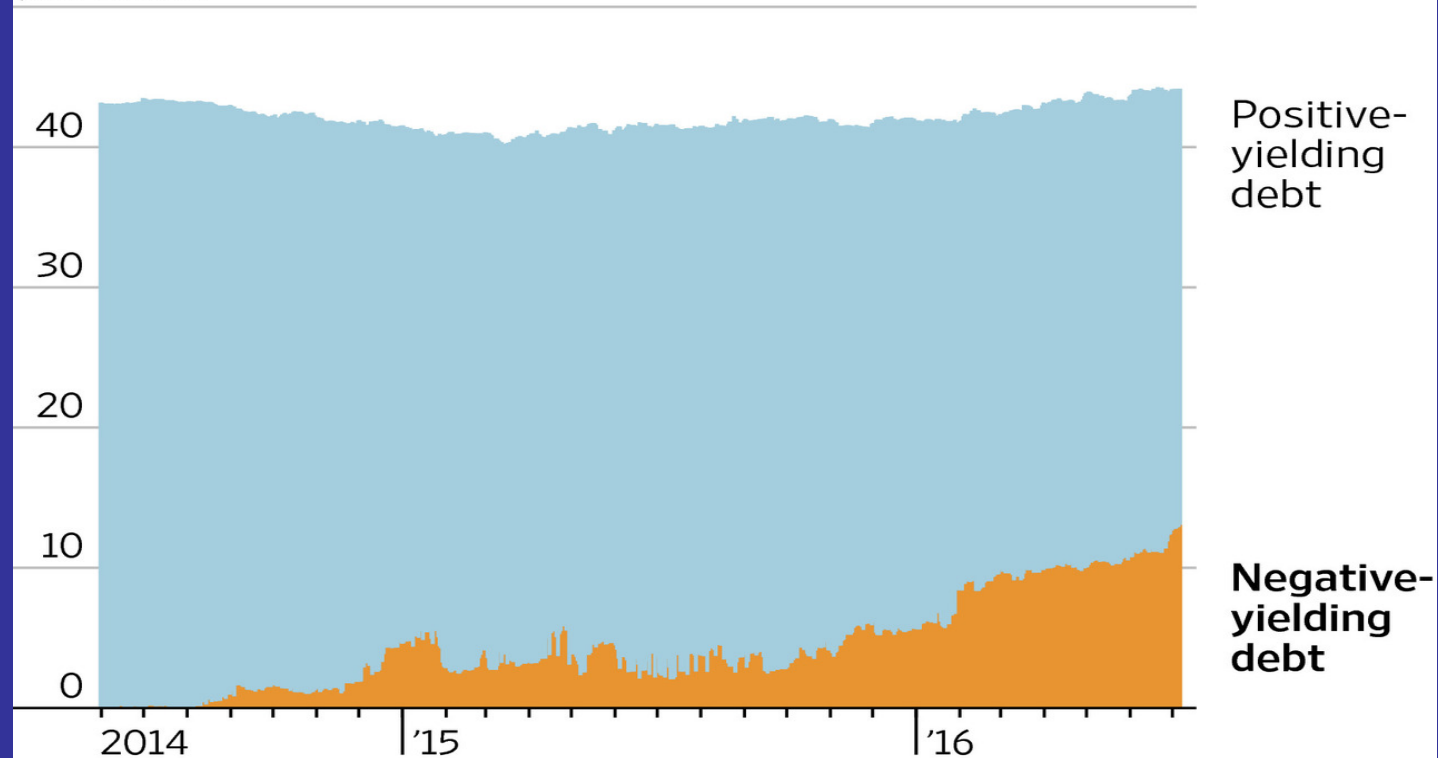


13% of global government debt is ‘negative yielding’ - Central banks are trying to jump start economies with “helicopter money” and low interest rates - it’s not working – central banks are trying to do the job abdicated by gutless legislative and executive branches

Rising Tide

The pool of global negative-yielding debt is climbing.

\$50 trillion



Source: Bank of America Merrill Lynch

THE WALL STREET JOURNAL.

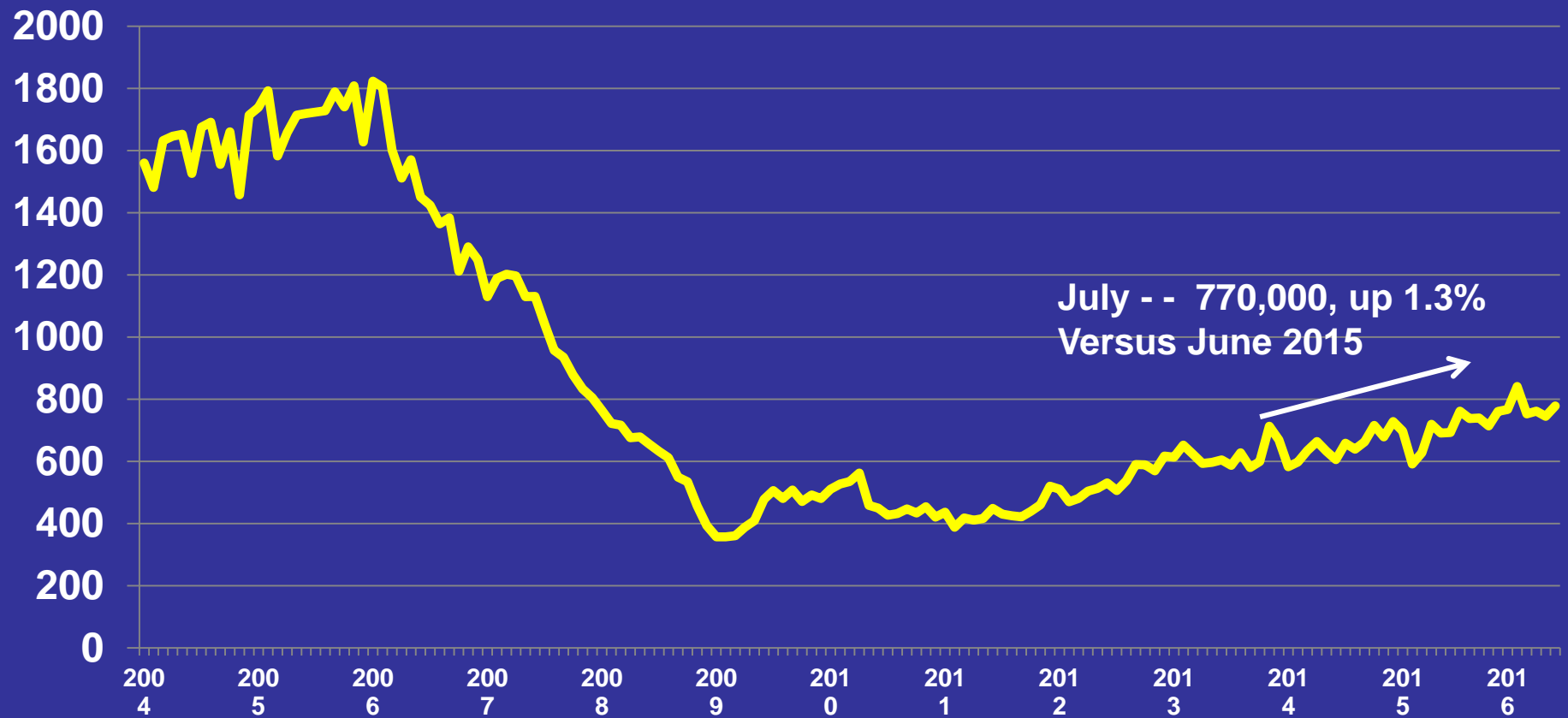
(<http://www.wsj.com/articles/black-hole-of-negative-rates-is-dragging-down-yields-everywhere-1468174982>)

Today, we're having a race to the bottom as central bankers around the world print money and devalue their currencies in an attempt to "juice up" their economies. We have negative interest rates in Germany and Japan (nominal rates) while real rates (inflation adjusted) are also negative here in the U.S. It is common sense that quantitative easing/printing money, etc. works only if you are only one doing it. If everybody does it, there is just a race to the bottom and we all lose as the world economy collapses from Massive debt. There are only two outcomes, both bad - - hyper inflation or collapse of demand and depression.

We need to smarten up and tackle the problems with better solutions. Globalization and a more interconnected world is going to make that extremely difficult. It won't happen without strong world leadership, cooperation, and shared Understanding that "we're all in this together". OK, world leadership won't happen so that leaves the USA to retake the leadership role – the next administration will need to restore our world leadership position.

Starts are inching forward – but, low Interest rates can't fix housing!
This is basically a two tiered market – healthy upper end
versus weak entry level housing - - not sustainable

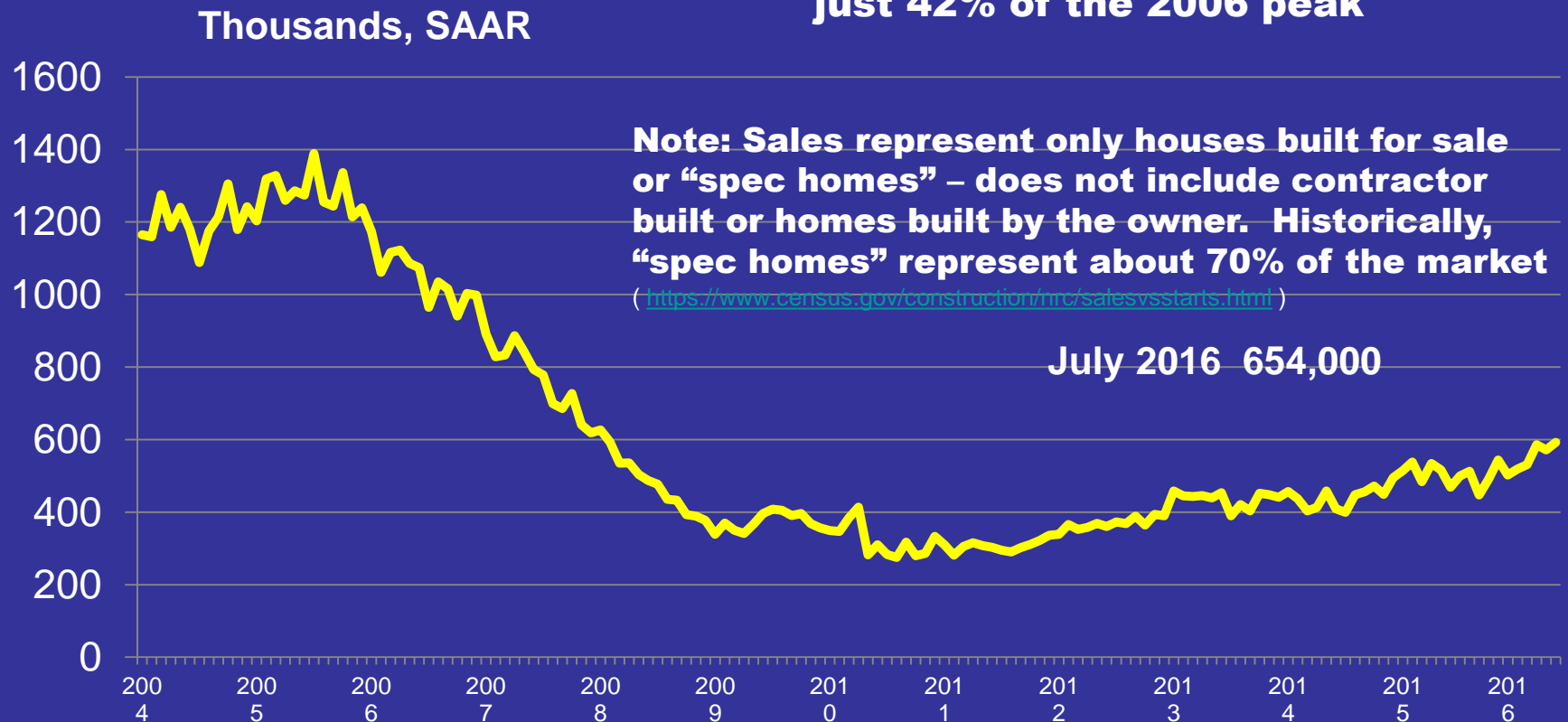
Single family starts, Thousand units, SAAR



Source: Census (<http://www.census.gov/const/www/newresconstindex.html>)

New Single Family Home sales are the key statistic to watch for wood products demand – sales drive housing starts – this drives demand for wood products!

up 31% versus July 2015
We're making progress, but still
just 42% of the 2006 peak



Source: Census (<http://www.census.gov/const/www/newressalesindex.html>)

Resale market continues to improve - however, tight supply (which drives prices), currently at 4.4 months, remains a problem. Healthy market is about 6 months supply. **Median prices are up 4.8%, annual basis**

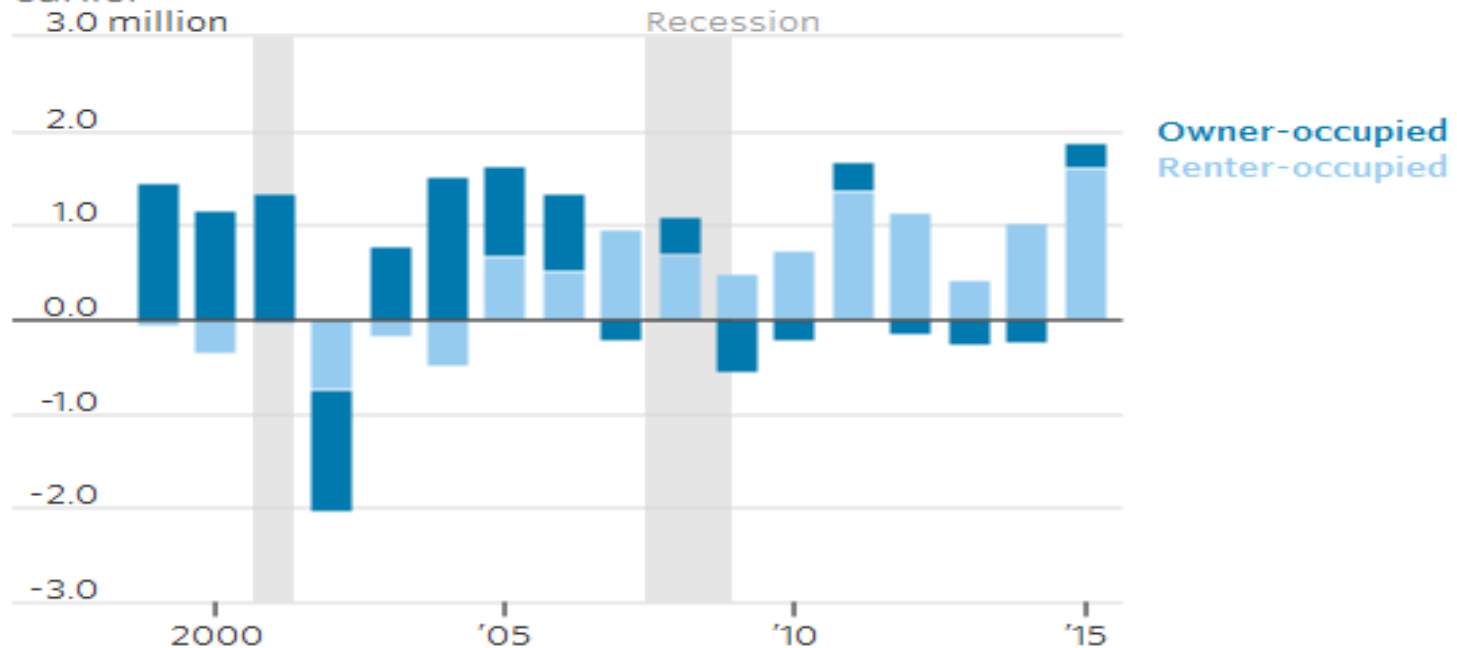
Single family (incl condos), Monthly, Thousand units, SAAR



Household formations (HH) are starting to pick up, but since 2007 the bulk of new HH are renting!

Household Formation

The number of occupied housing units, change from one year earlier

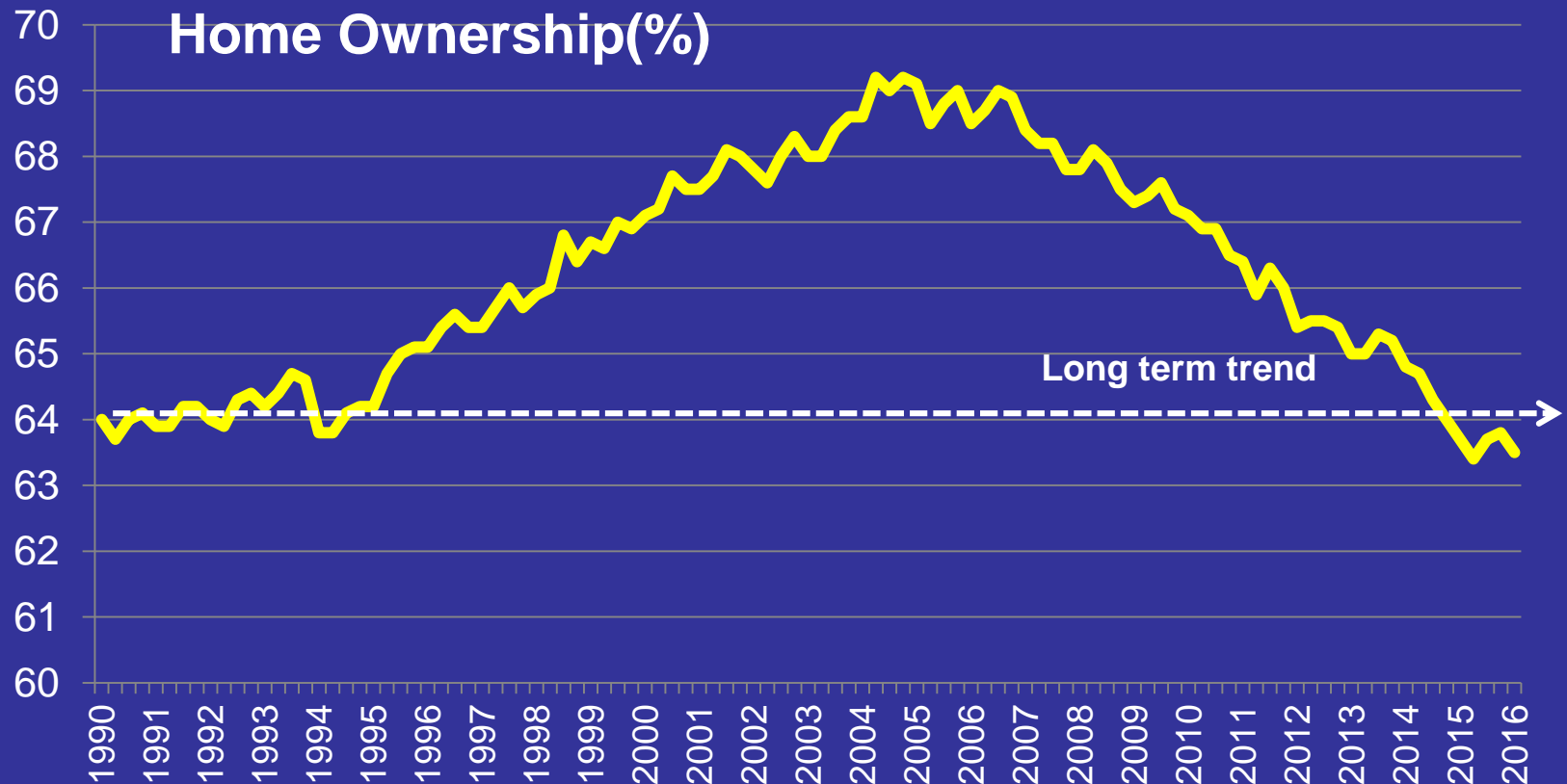


Source: Census Bureau
THE WALL STREET JOURNAL

Household formations and shift to renting - - falling homeownership rate for millennial's - used to be 43% - now it is 33% - young people are renting

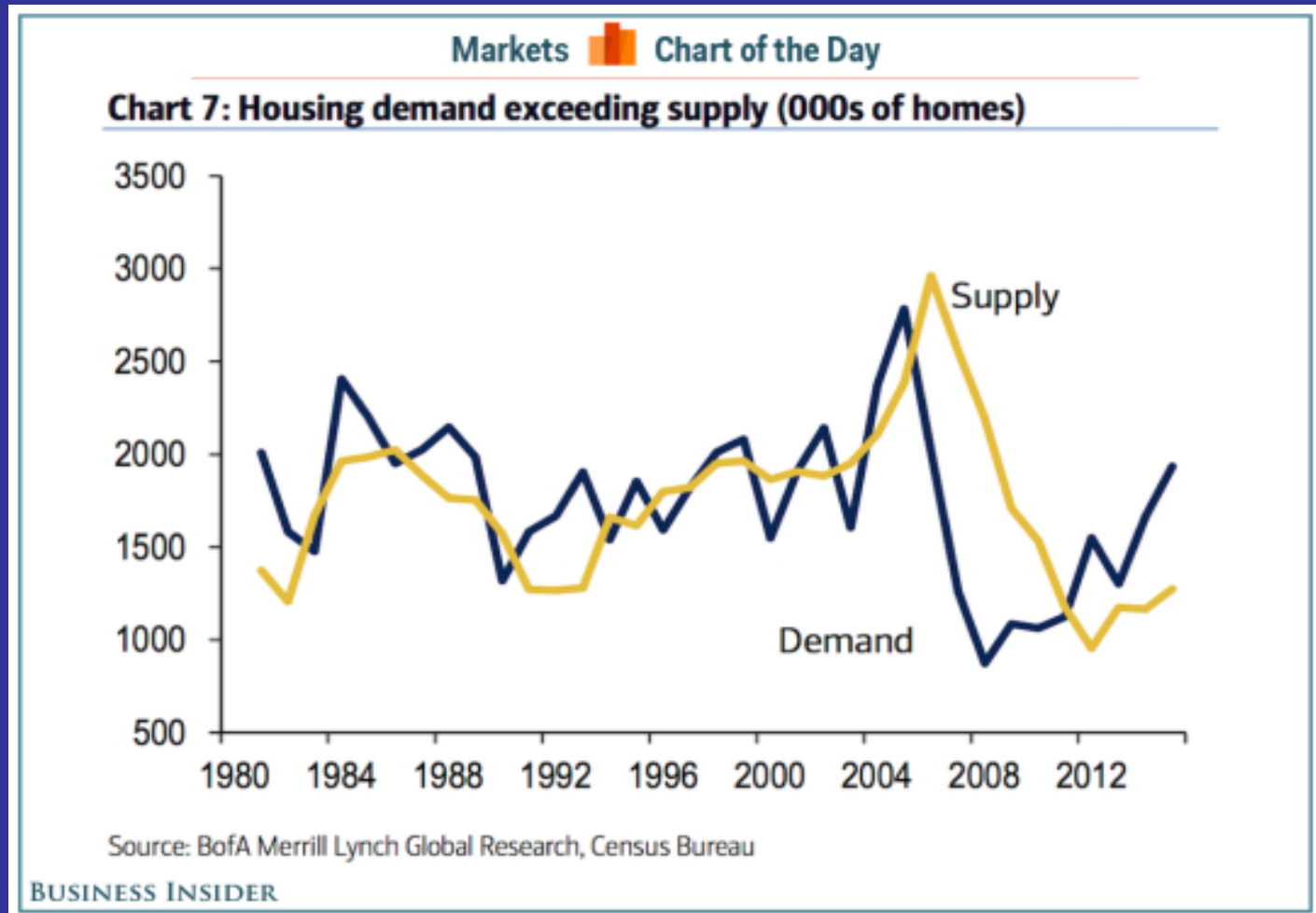
Recent study shows that people with college degree takes 5 years to save enough for down payment for starter home (with student debt – 10 years), no college – 16 years (<http://www.wsj.com/articles/homeownership-elusive-for-young-adults-without-college-degrees-1463909402>)

Homeownership lowest in 50 years



Source: Census (<https://www.census.gov/housing/hvs/data/q413ind.html>)

Tight supply drives up prices – existing homes at 4.7 months supply – normal supply is 6 months



Rental demand versus single family housing ---

Rental demand will continue to increase for years – a recent study by the Urban Institute suggests it may continue for another decade or two

(<http://www.wsj.com/articles/new-housing-crisis-looms-as-fewer-renters-can-afford-to-own-1433698639>)

Why - - demographics; growing minority population; student debt; weak income growth; E.g., Minorities (nonwhite) will make up 75% of net household growth over the next 10 years, and 85% during 2020- 2030. They are less likely to own homes (lower incomes is main reason) so home ownership continues to fall toward 60% by 2030. During this time, rental demand will increase dramatically. Although this is just one study, it provides food for thought. One potential question with the study, however, is other studies show that although immigrants, for example, rent initially, but, over time they purchase homes at a rate equal to or higher than native born Americans. Why – people come to the U.S. to improve quality of life, and for most, this means homeownership. This suggests that the U.S. has to find solutions to immigration issues like “Illegal immigrants” while encouraging legal immigration. This country was founded by immigrants seeking a better life, and they are key to our future. **And, incomes for all Minorities has to improve if home ownership is to return to “good old days”**

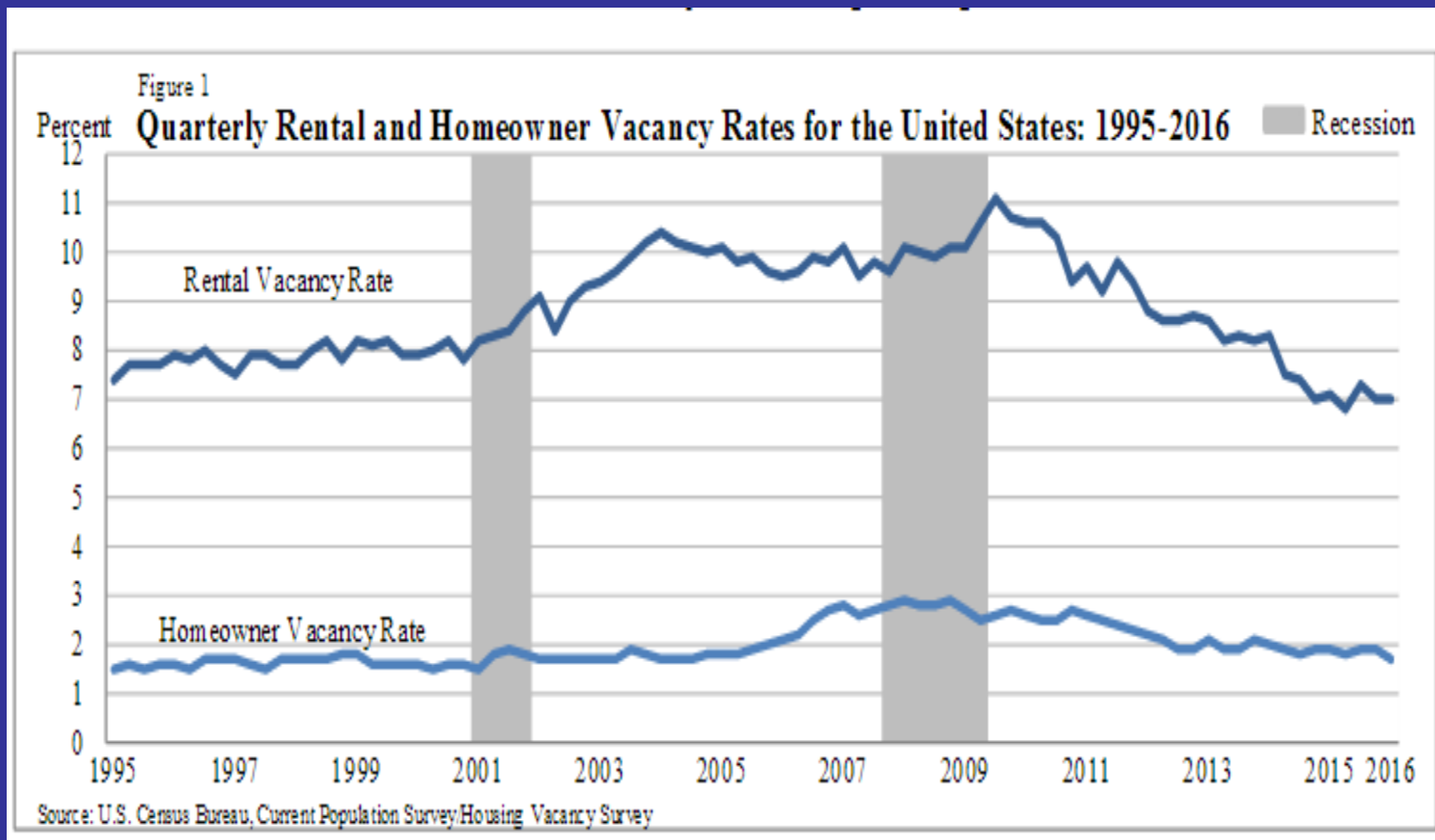
(http://www.engineeredwood.org/Data/sites/3/documents/EngWoodJournal/EWJ_Spring2010.pdf)

Anyway, this has potential implications for home ownership; single family construction; and demand for wood products – lots of variables and scenarios.

Rental vacancy rates lowest in 20 years

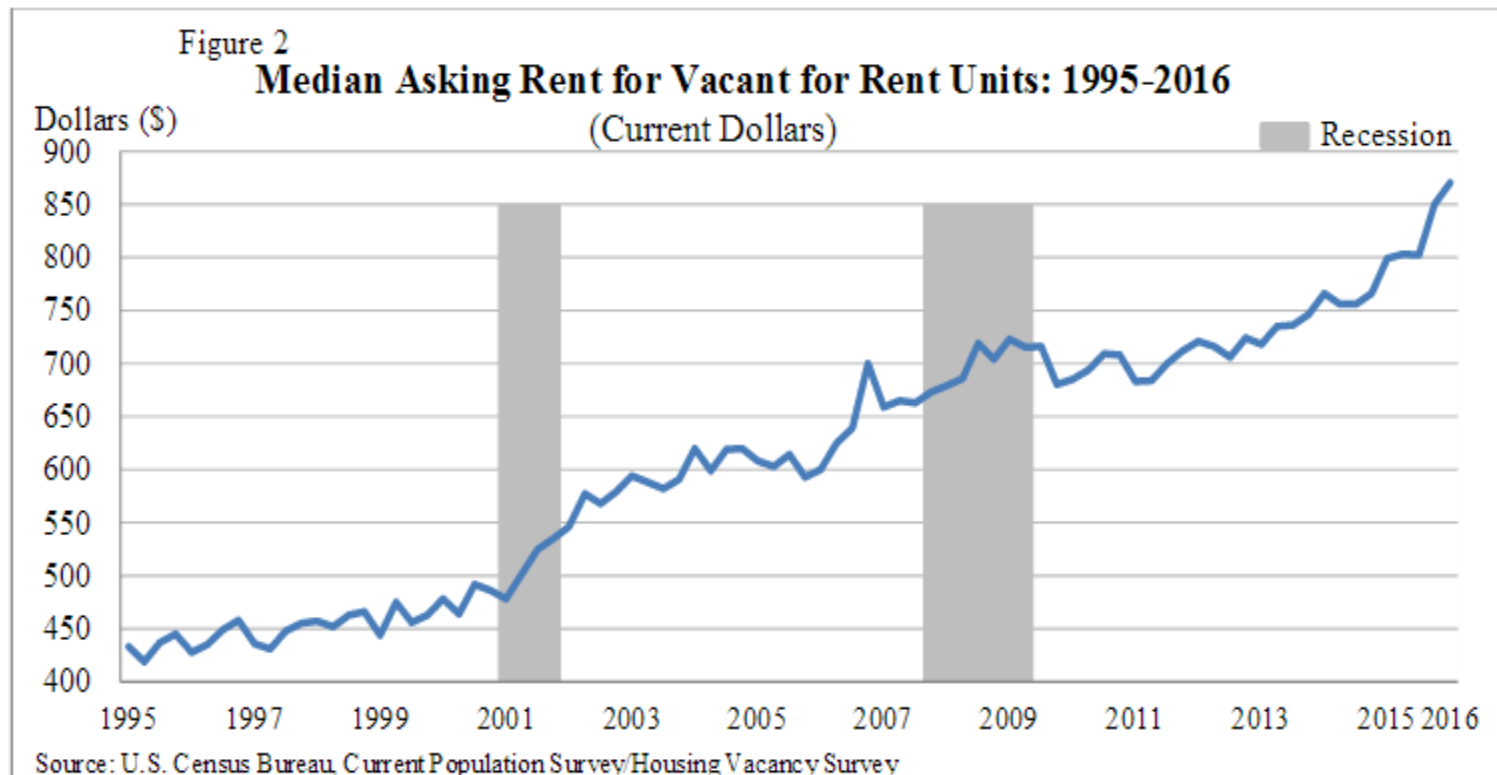
Falling rental vacancy rates will drive rental prices higher

and this will drive multi family construction – Economics 101 – if I were a builder, I would focus on rental construction

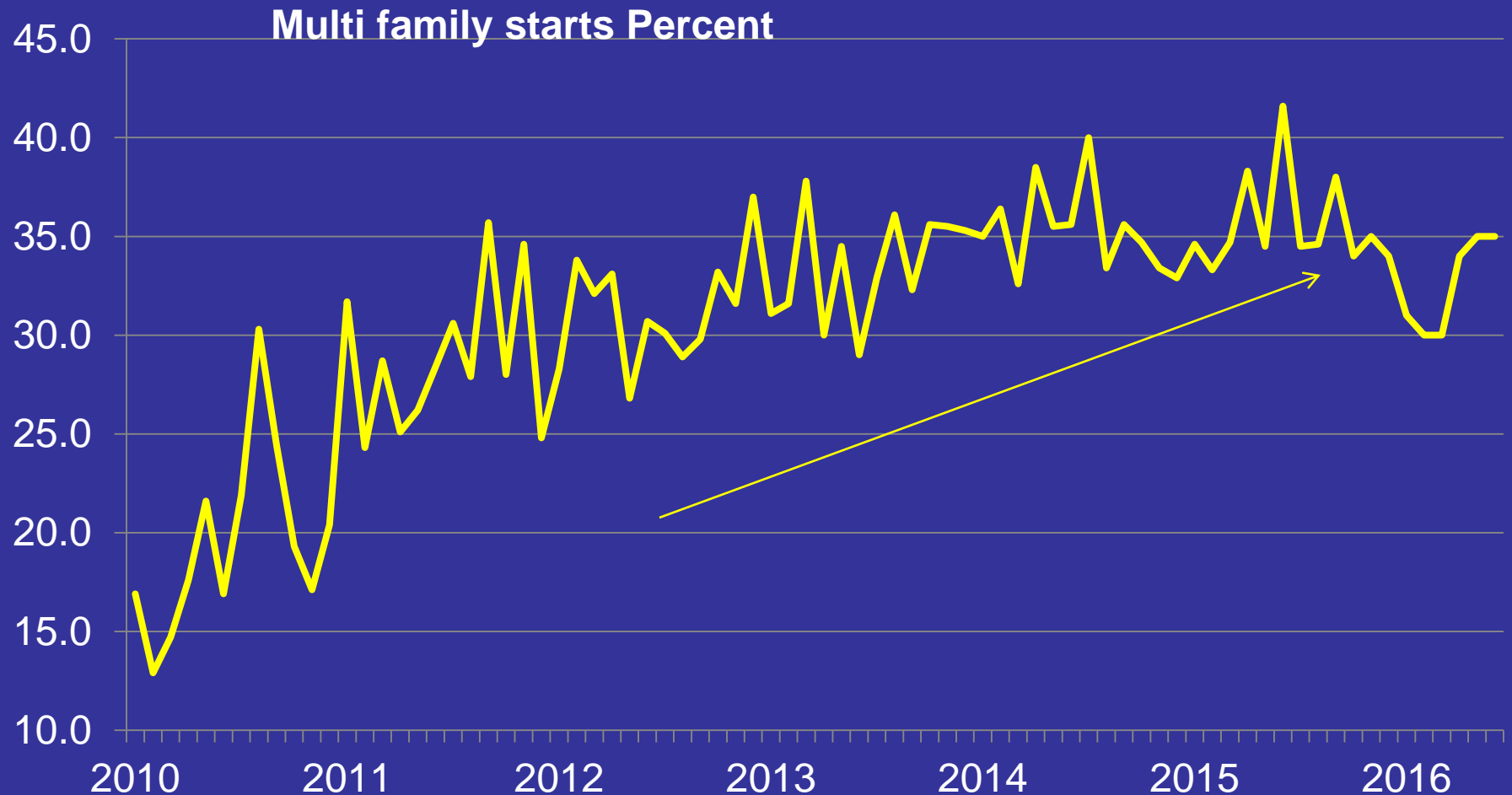


Increasing rents are slowing housing starts - - more difficult for renters to save for down payment for house purchase

In the first quarter 2016, the median asking rent for vacant for rent units was \$870.



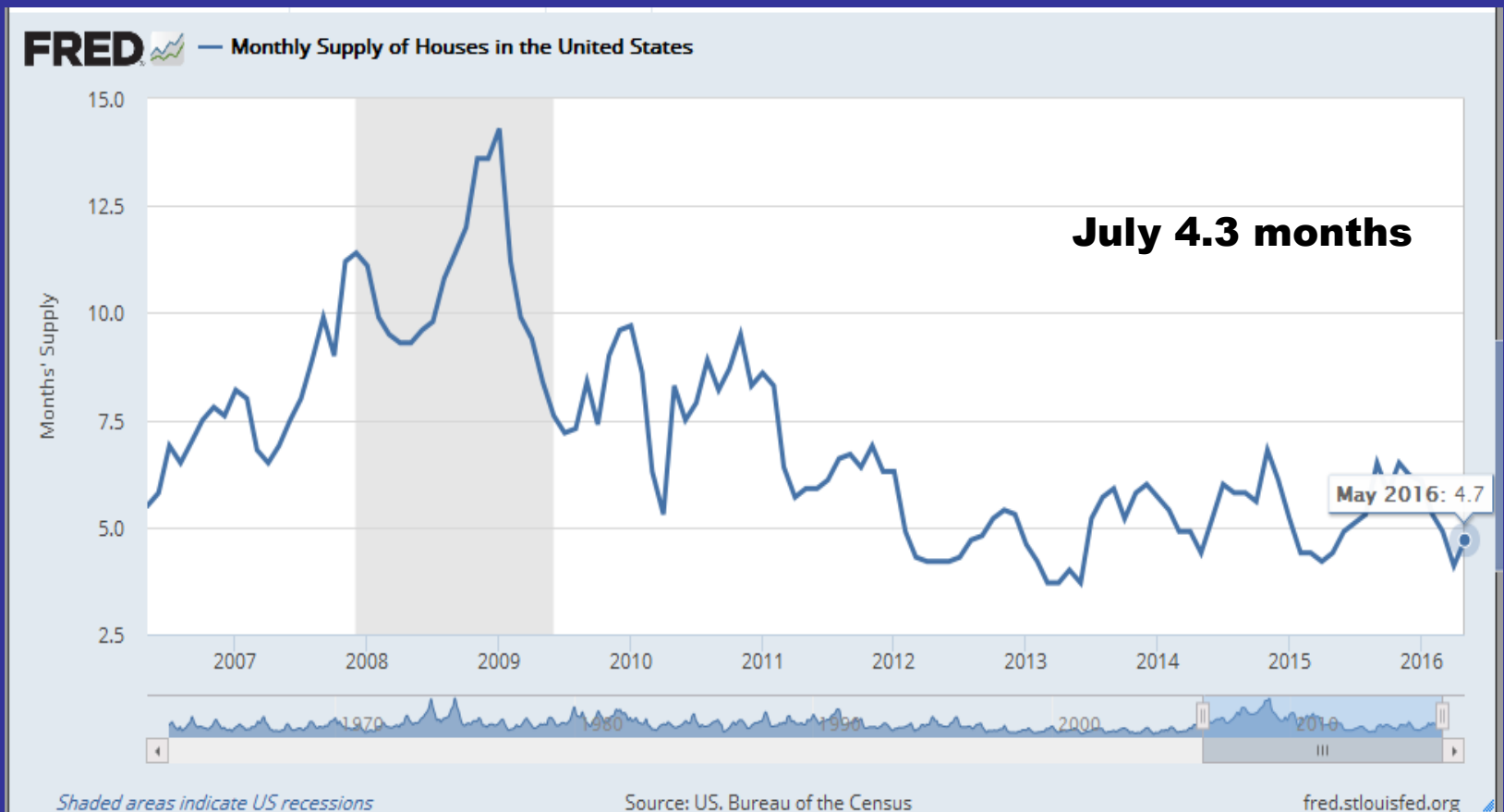
Multi family share of housing starts – upward trend expected to continue for some time. Also, since the housing crash in 2008, **single family rentals have now reached 13% of overall housing stock, up from 9% in 2005** (<http://blogs.wsj.com/economics/2015/07/20/signs-of-overheating-in-the-single-family-rental-market/>)



Source: Census

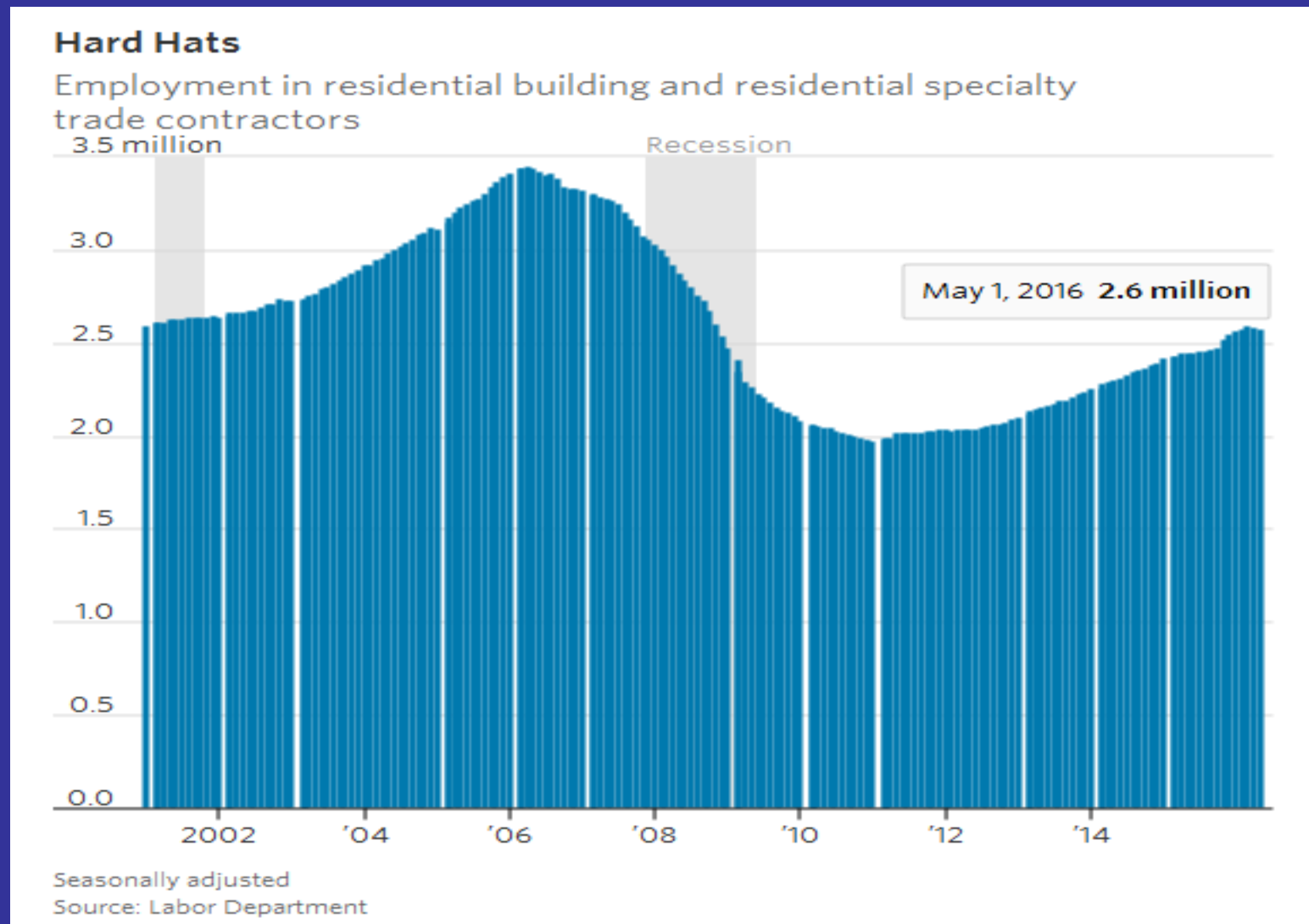
Low new home inventory drives prices higher and out of reach to most 1st time buyers

But, builders can't find enough carpenters, masons, electricians, etc. So construction costs keep escalating = this exacerbates the inventory problem – also, land shortages in parts of the country drive costs higher!



News on the labor front

Construction employment down about 1 million from 2006 peak



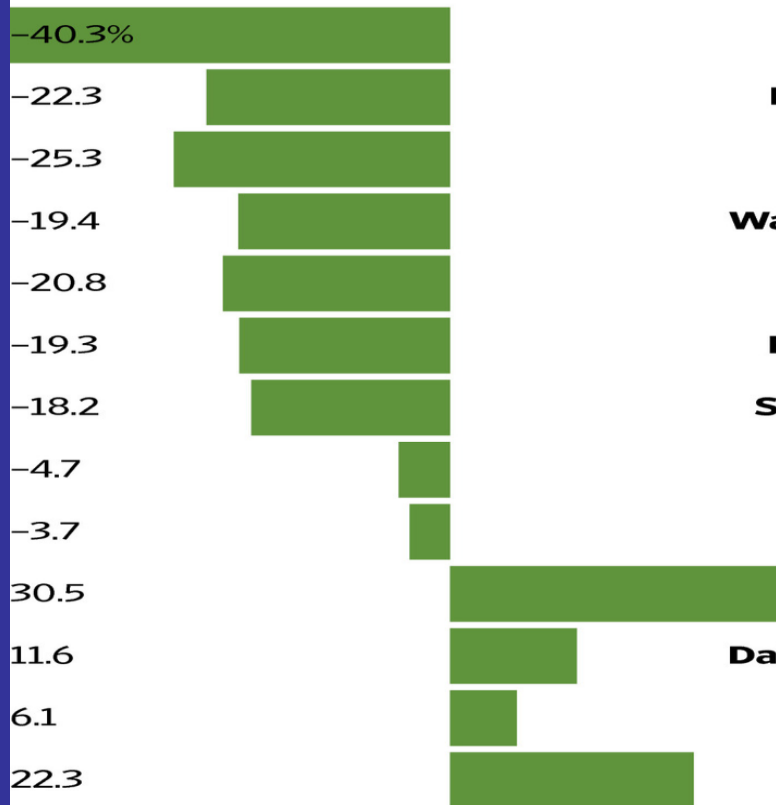
Construction cost increases due to labor crunch

Labor Crunch

While some markets, such as Texas, have seen construction employment grow over the past decade, the loss of workers has accompanied cost increases in many other markets.

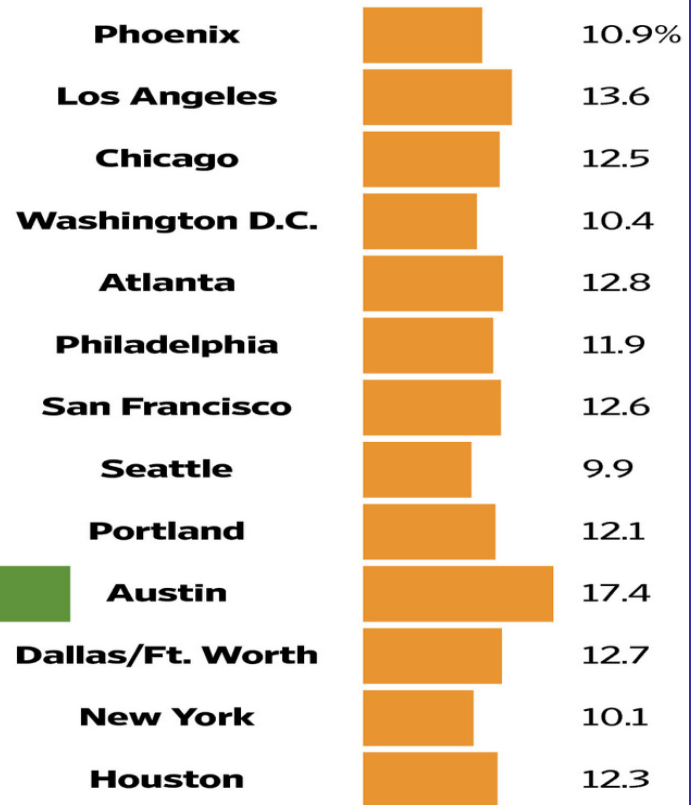
Change in construction employment

May 2005 vs. May 2015



Change in construction costs

Jan. 2011 vs. Jan. 2016



Source: CBRE analysis of Bureau of Labor Statistics, RS Means Construction Cost Index data.

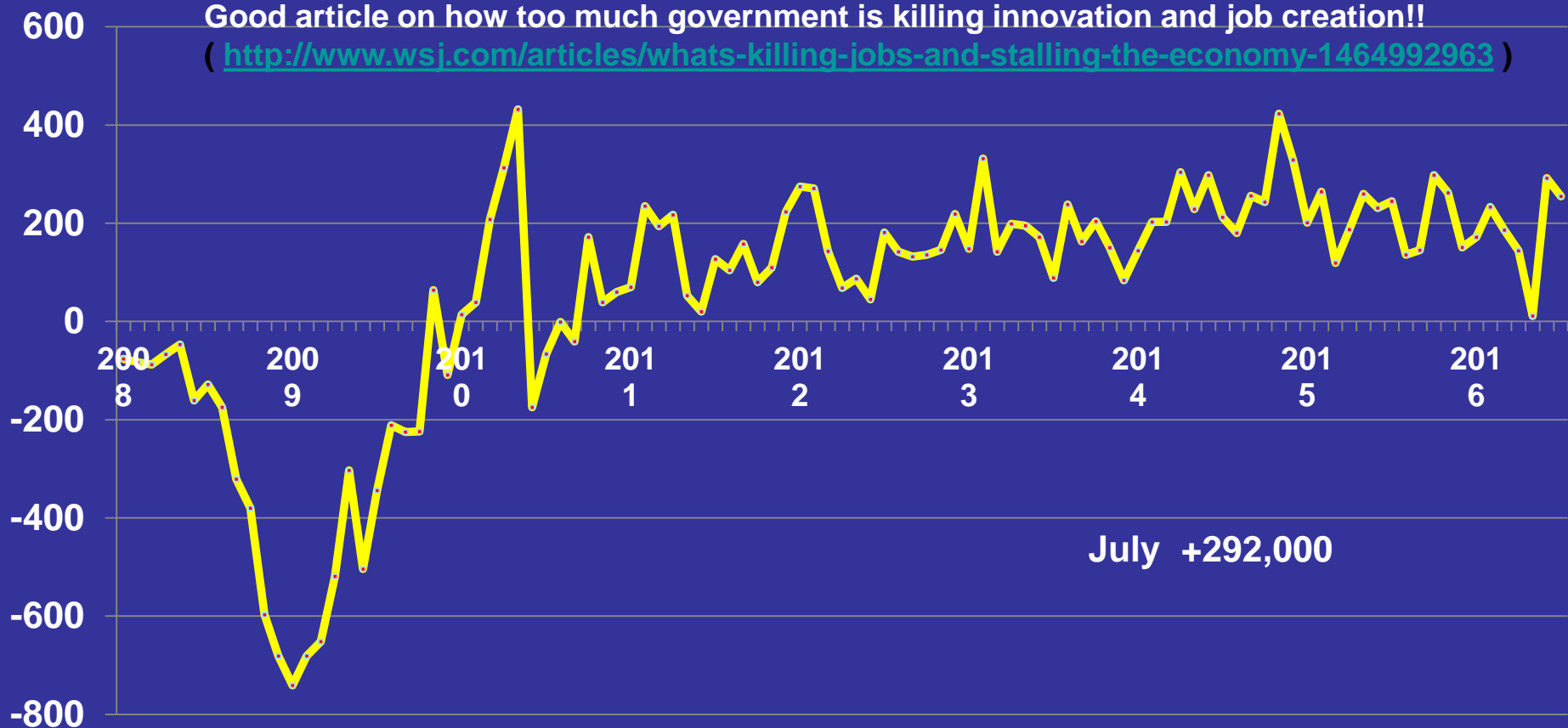
THE WALL STREET JOURNAL.

Employment situation - our biggest problem – stuck near 200,000, and many of these jobs are part time with little or no benefits – not conducive to driving housing demand higher - need to encourage innovation and investment in future - that means less government

Net change in non farm payrolls – monthly, thousands

Good article on how too much government is killing innovation and job creation!!

(<http://www.wsj.com/articles/whats-killing-jobs-and-stalling-the-economy-1464992963>)



July +292,000

Source: U.S. BLS (www.bls.gov)

Unemployment rate keeps coming down – but, nearly 7 million remain “underemployed” – working part time, but want full time jobs

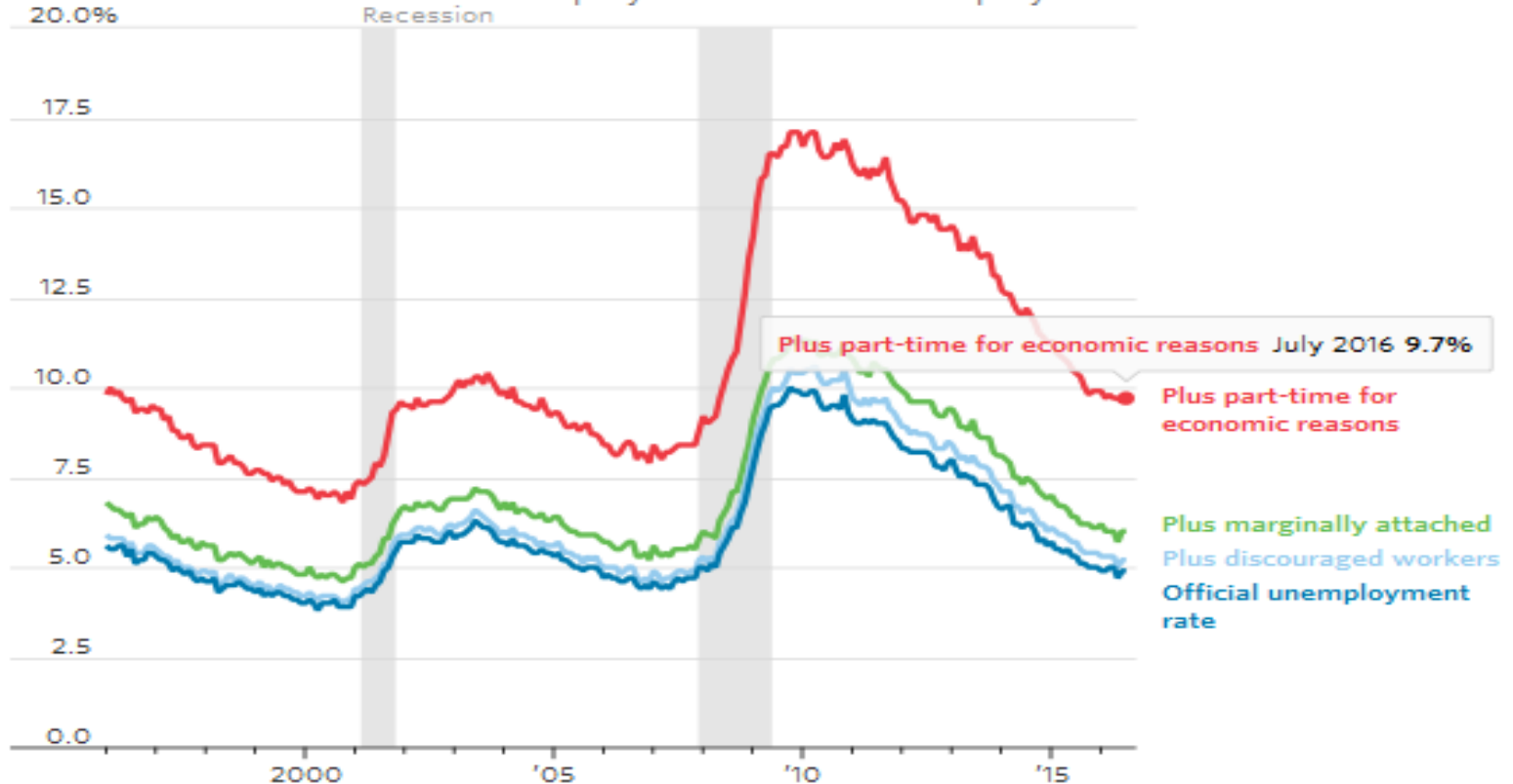
There are about 16 million people either unemployed, underemployed, or stopped looking – **Key reason why wage increases are stagnant!



But, things are improving – that's a good thing!

Broader Measures

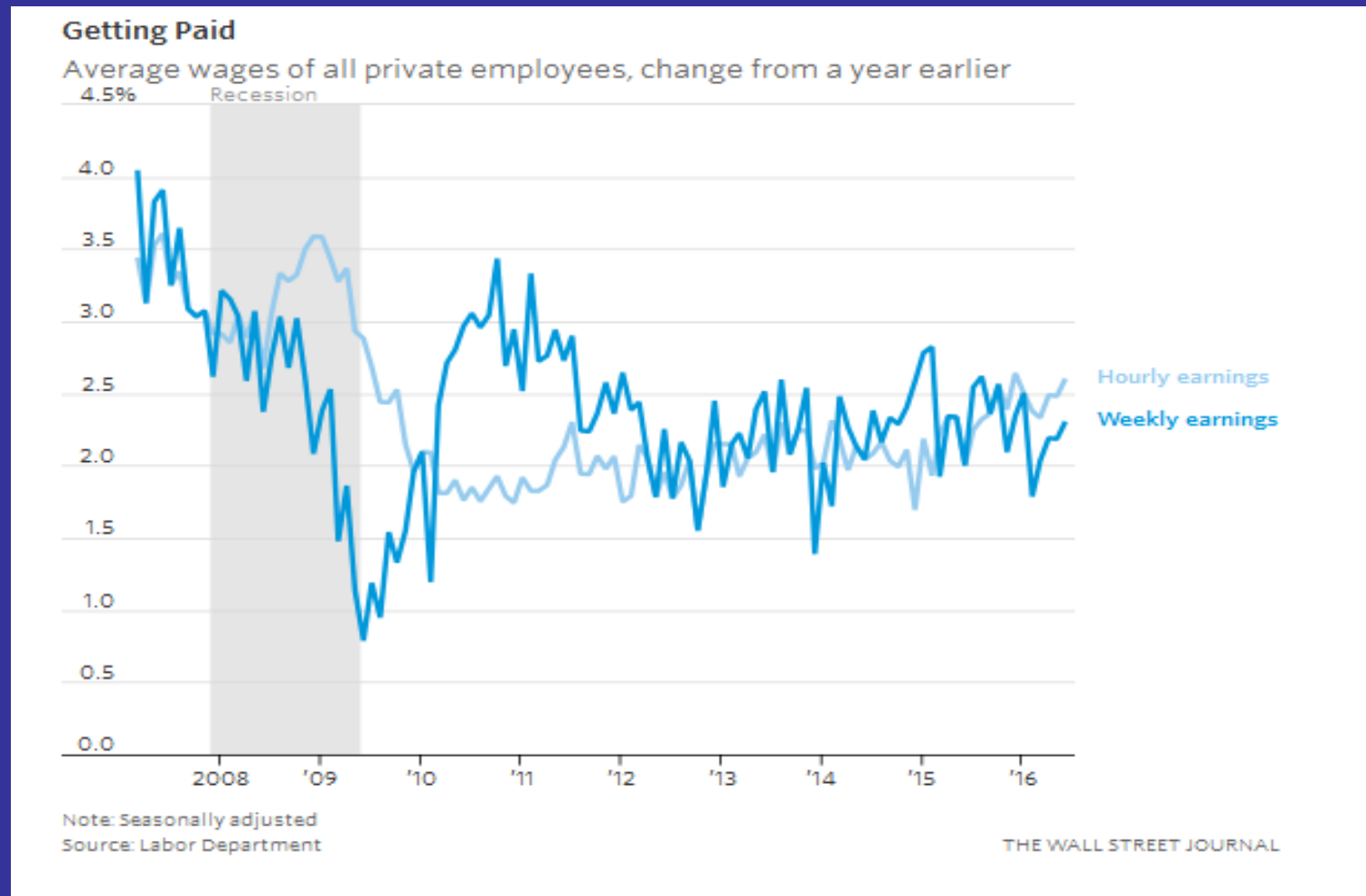
Alternate measures of the unemployment and underemployment rate



Note: Seasonally adjusted
Source: Labor Department

THE WALL STREET JOURNAL

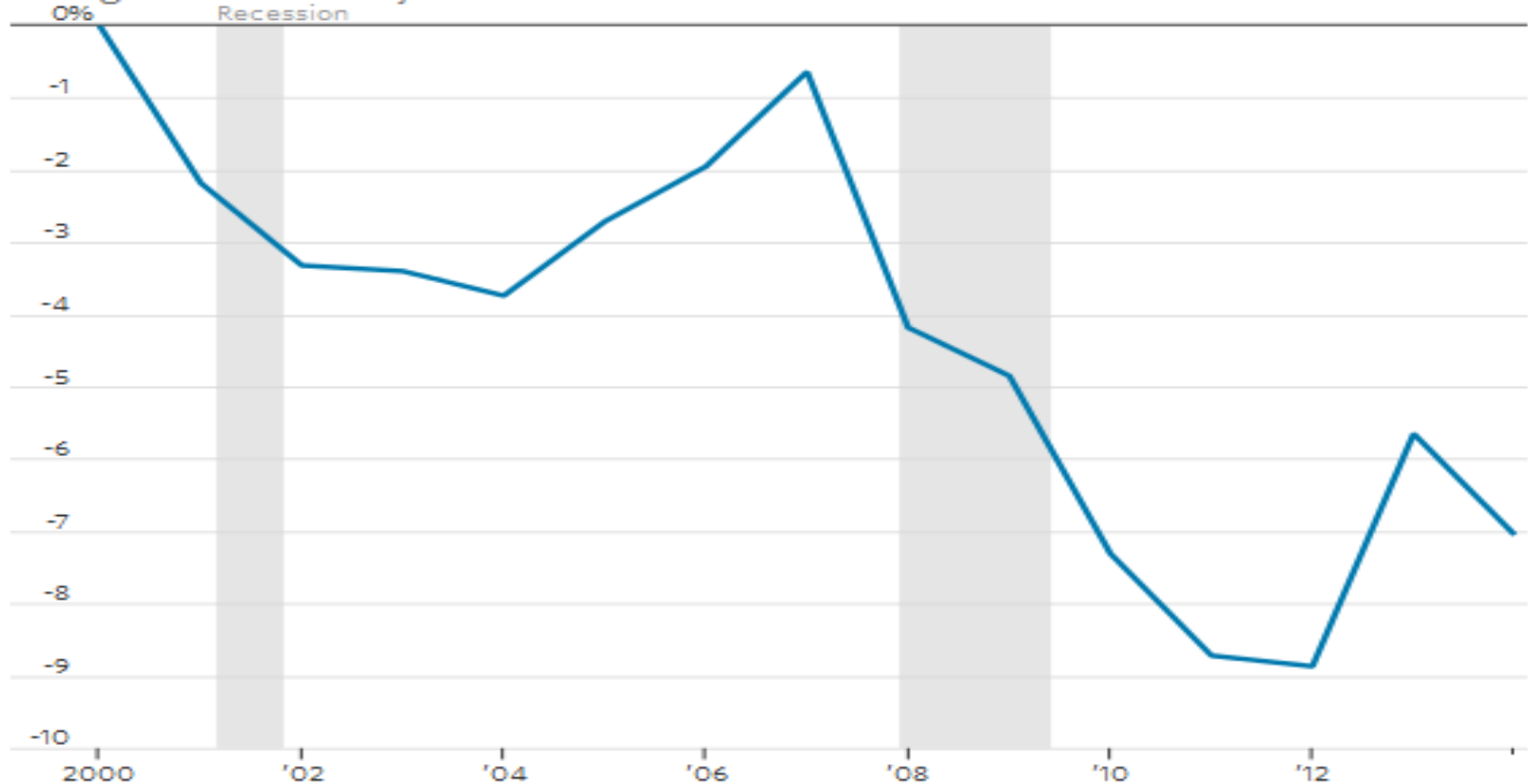
And, recent earnings growth shows signs of improving slowly, but nonetheless, improving



But, we still have problems – household incomes keep Falling – why? Because many of new jobs are low paying With few benefits. Again, education is key, plus we need more business investment to drive productivity growth which drives incomes and job creation.

Downward Slope

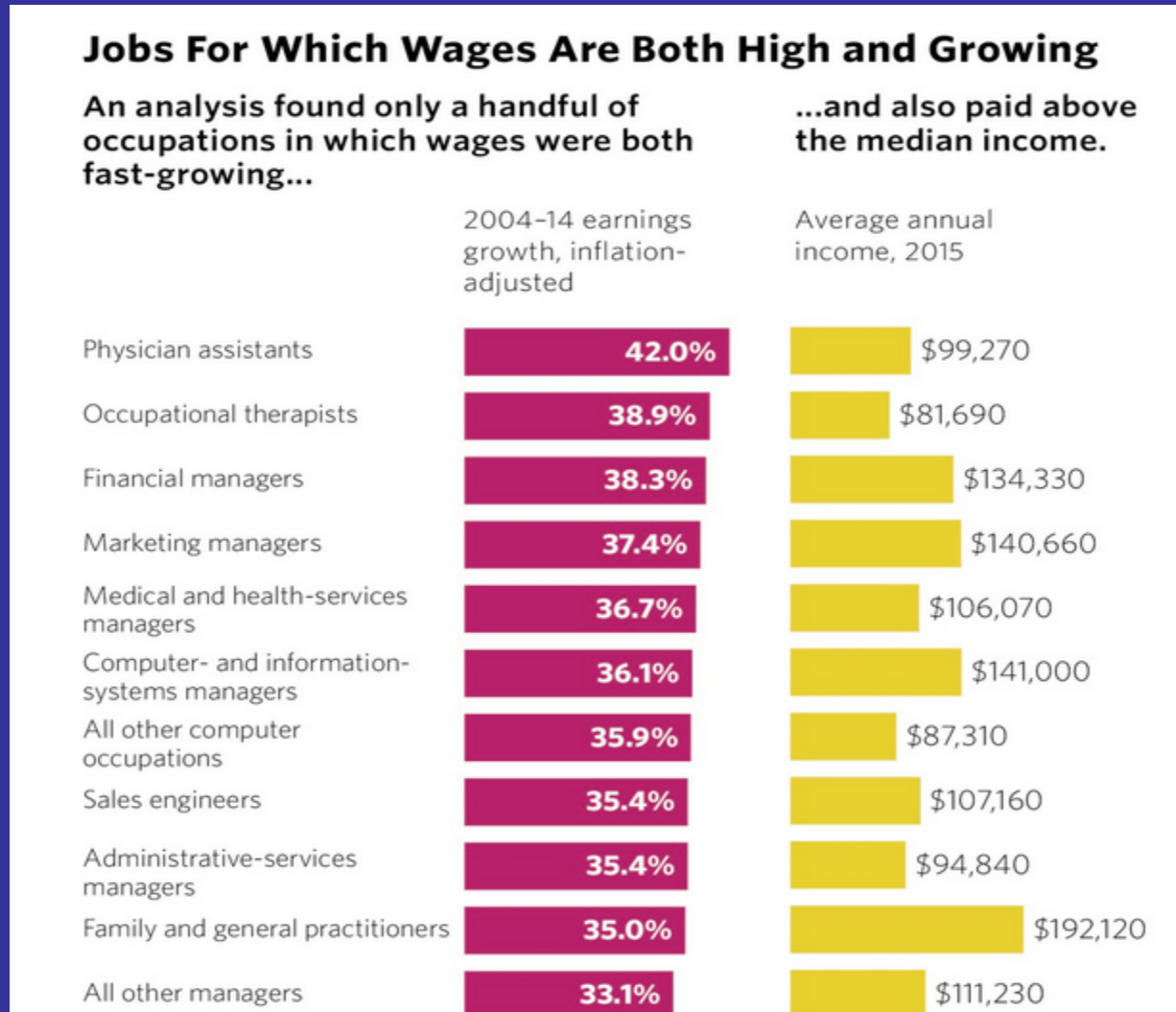
Change in inflation-adjusted median household income since 2000



Source: Census Bureau via the St. Louis Fed

THE WALL STREET JOURNAL

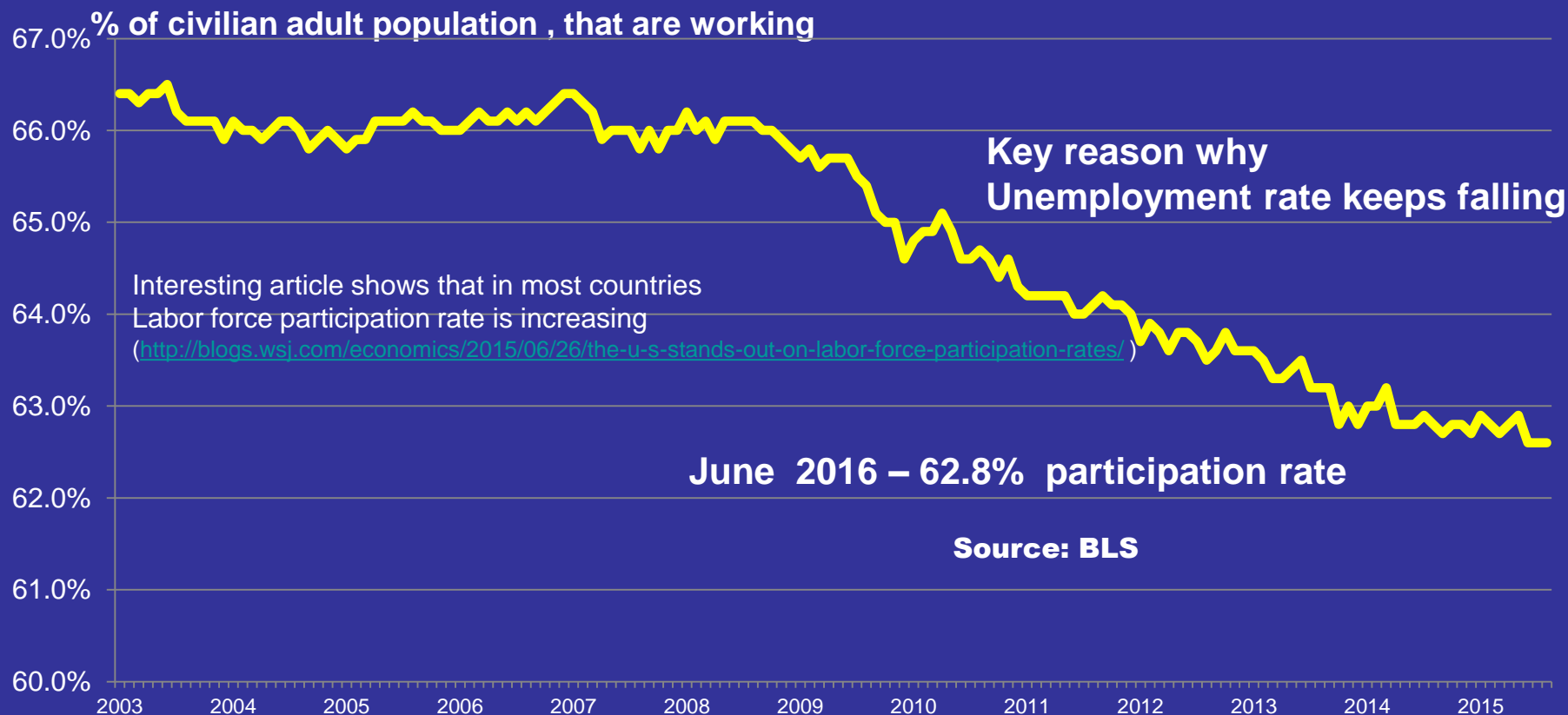
Researchers found that only about 15% of the working-age population held a job with salary growth that at least matched the high-water mark for household income and had held up to inflation over the past decade. Below are some of those jobs. **Again, education is key!**



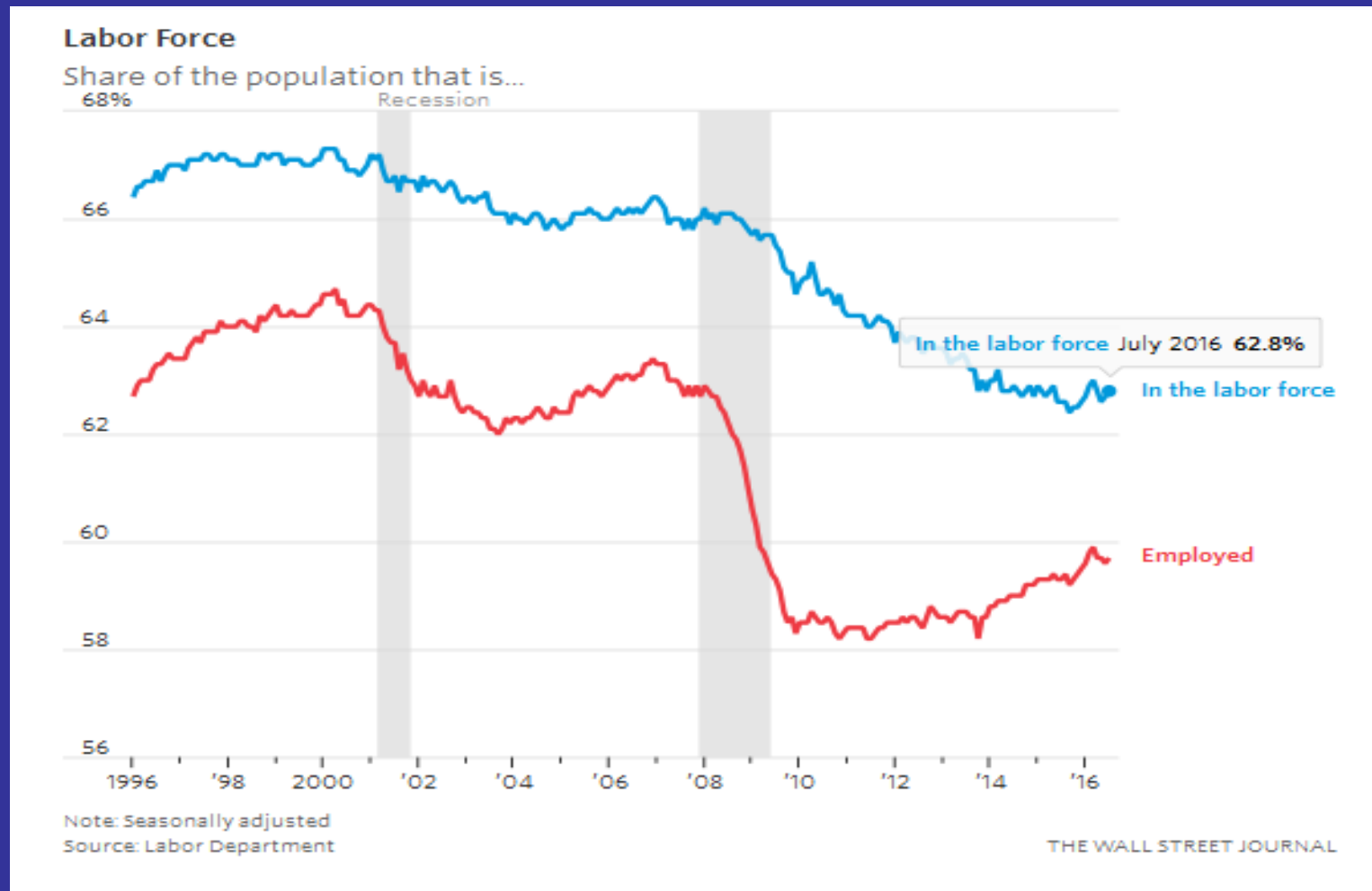
(<http://blogs.wsj.com/economics/2016/07/26/the-short-list-of-jobs-with-high-and-rising-pay/>)

Labor force participation rate is shrinking – demographics is one reason – another reason – bloated welfare system – 130 million people on some form of welfare (food stamps, long term disability, housing allowances, Medicaid, ...) - - we'll see skilled labor shortages **increase over the next decade - we're already seeing construction related shortages with brick layers, masons, electricians, plumbers, etc.**

Excellent article (<http://finance.yahoo.com/news/should-i-go-to-a-trade-school-162413337.html#>)



Aging population is part of the problem, but weak economy and mismatch between skills of job seekers and available jobs isn't helping - and, bloated welfare system encourages too many people to give less than their best...



Some conclusions – housing continues to improve albeit slowly and this will not change soon for the reasons listed below:

- (1) Economy will continue to sputter -- **2016 growth expected to be about 2.0%**
- (2) Housing market not healthy - 1st time buyers (31% today) are below trend (45%) - household formations are improving, but more people will continue to rent
- (3) Productivity a major problem for U.S. economy – real GDP driven by population (number of workers) and real GDP/worker or productivity. During past 7 years, productivity has grown 1.7% annually whereas the average over previous 17 years was 2.4%.
- (4) “QE” not working – bulk of “printed money” hoarded by the banks to shore up capital positions – not being loaned out to the economy - GDP languishes - we need a new and more effective approach to our demand problems!
- (5) ***Weak/no leadership from current administration and Congress, - our biggest problem – neither Hillary nor “the Donald” will fix our problems***
- (6) The fed can’t make decisions – doesn’t know what to do – confused – soon, the U.S. will Join Europe and Japan with negative real interest rates. Negative rates are a clear sign of weak demand. Innovation, investment, tax reform, is the solution, but that will be challenging with \$19 trillion (and counting) federal debt and 41% of the population on some form of welfare. Many business leaders have lost confidence in where the country is headed so they are not investing.

Virginia Tech Disclaimer

Disclaimer of Non-endorsement

Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by Virginia Tech. The views and opinions of authors expressed herein do not necessarily state or reflect those of Virginia Tech, and shall not be used for advertising or product endorsement purposes.

Disclaimer of Liability

With respect to documents sent out or made available from this server, neither Virginia Tech nor any of its employees, makes any warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Disclaimer for External Links

The appearance of external hyperlinks does not constitute endorsement by Virginia Tech of the linked web sites, or the information, products or services contained therein. Unless otherwise specified, Virginia Tech does not exercise any editorial control over the information you may find at these locations. All links are provided with the intent of meeting the mission of Virginia Tech's web site. Please let us know about existing external links you believe are inappropriate and about specific additional external links you believe ought to be included.

Nondiscrimination Notice

Virginia Tech prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the author. Virginia Tech is an equal opportunity provider and employer.