

2018 Construction Spending Forecast - Nonresidential Bldgs

3-28-18 Detail of Nonresidential Buildings construction starts, backlog and spending 2017-2018

2017 Wrap Up - Spending, Starts and Backlog

Total construction spending in 2017 reached \$1.236 trillion, an increase of 4.3% over 2016.

Total spending is up 57% from the 2011 low point and is now 6% above the previous 2006 high.

\$ in billions % growth vs prior yr	U.S. Total Construction Spending Summary totals in billions current U.S. dollars					Forecast	Forecast	Forecast
	2013	2014	2015	2016	2017	2018	2019	2020
Nonresidential Bldgs	303.2	332.7	379.5	408.1	419.0	459.0	480.5	486.1
	0.8%	9.7%	14.1%	7.5%	2.7%	9.5%	4.7%	1.1%
Nonbuilding Hvy Engr	273.9	298.0	305.4	304.4	293.9	319.3	342.5	358.7
	0.1%	8.8%	2.5%	-0.3%	-3.5%	8.6%	7.3%	4.7%
Residential	329.2	374.9	428.8	473.2	523.4	552.2	557.7	599.2
	19.3%	13.9%	14.4%	10.4%	10.6%	5.5%	1.0%	7.4%
Total	906.4	1005.6	1113.6	1185.7	1236.3	1330.4	1380.7	1444.0
% growth vs prior yr	6.6%	11.0%	10.7%	6.5%	4.3%	7.6%	3.8%	4.6%
Source \$ Data: U.S. Census Bureau, Department of Commerce.								
Actual Spending data includes revisions 2015-2016 issued 7-3-17								
Forecast includes U.S. Census January 2018 year-to-date spending							edzarenski.com	

Nonresidential Buildings 2017 spending finished at \$419 billion, up only 2.7% from 2016.

Nonresidential spending is up 47% from the 2011 low point but is still 4.5% below the 2008 high. By December 2017, the seasonally adjusted annual rate (SAAR) had reached \$433 billion, near the all-time high, only 2% below the peak in 2008.

2017 spending finished below my forecast due to lower than expected performance in Educational and Office. Educational starts increased 6%+/year for the last three years, but spending increased only 4%/year the last two years. Office starts increased nearly 30% in 2016, but dropped 2% in 2017. Spending increased only 3% in 2017.

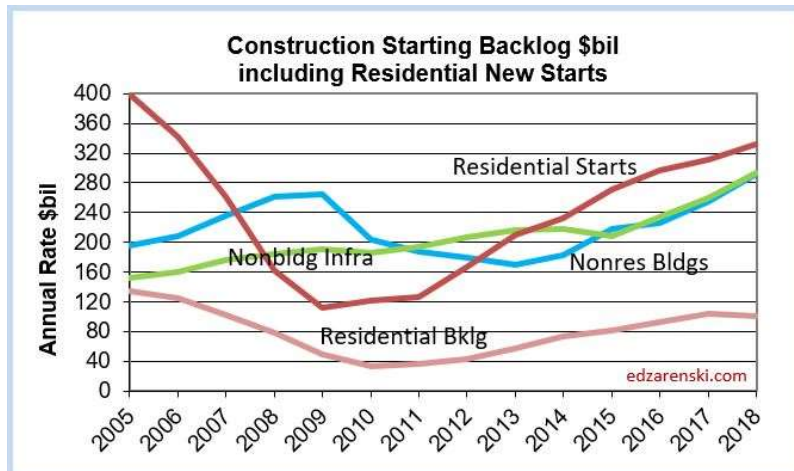
History shows total spending has been revised up 53 times in the last 60 months. I expect future revisions will smooth out spending in unusually low periods and increase total 2017 spending above this forecast. I suspect either big upward revisions to 2017 spending or large increases in backlog will boost 2018 spending in these two markets.

2017 New Starts

Dodge Data 2017 TOTAL construction starts increased only 2.6% from 2016. However, starts are always revised upward in the following year. I expect revisions will show 2017 starts increased by 6% to 7% over 2016. Revisions to date (to Jan & Feb 2017) have already increased the 2017 Total to 4.2% over 2016. Even if the Total reaches 6% growth over 2016, 2017 starts will still have posted the lowest growth since 2011.

Nonresidential Buildings starts, currently are up 9% for 2017, could finish up 14% after all revisions. Nonresidential Buildings new starts are up 55% in four years.

Although there was a 1% decline in 2015, starts averaged 12%/year growth for the last four years. The six months from Aug 2016 to Jan 2017 totaled the highest average starts since Jan-Jun 2008, also the year nonresidential buildings spending peaked. The six months Jul-Dec 2017 just surpassed both those previous peak highs. All of those new high starts will generate spending in 2018, so 2018 spending benefits from the two strongest six-month periods of starts on record.



- Previous year starts always later get revised upwards. Therefore, current year starts ytd growth is always understated. This analysis compensates for that.
- Nonres Buildings Starts increased at an average of 12%/year for the last 5 years.
- Nonres Buildings Starts are at all-time highs.
- New starts will generate record high 2018 starting backlog for every sector.

The pattern of nonresidential buildings construction starts for the last 30 months indicated spending increases in the 2nd half of 2017 and set up 2018 for the highest ever starting backlog and record spending. Spending started to show increases in November and is up 4% the last 3 months vs the previous 3 months.

2018 Starting Backlog

TOTAL All Construction starting backlog for 2018, currently at an all-time high, increased 30% in the last three years.

Starting Backlog is the Estimate-to-Complete (ETC) value of all projects under contract at the beginning of a period. Projects in starting backlog could have started last month or last year or several years ago.

- Nonresidential buildings 2018 starting backlog is up 12%.
- Starting Backlog is at an all-time high for nonresidential buildings.
- 80% of all Nonresidential spending within the year will be generated from projects in starting backlog.

Nonresidential Buildings 2018 starting backlog is the highest ever, up 12% from 2017, 8% over the previous high in 2009. This will increase as more revisions to 2017 are posted.

Nonresidential buildings 2018 starting backlog is 55% higher than at the start of 2014, the beginning of the current growth cycle. Spending is UP 38% through 2017. Starting backlog has increased for 5 years at an average 10%/year. Spending from starting backlog, up 10% in 2018, increased for 5 years at an average 9%/year. Nonres Buildings will reach a new high for spending in 2018.

Cash flow models of construction projects in backlog are indicating substantial acceleration in nonresidential spending over the next year. The share of spending within the current year from backlog is at an all-time high for nonresidential buildings.

2018 New Starts

Starts for 2018 are conservatively estimated at 3% growth. After revisions I expect that to increase to 6%. But 2018 starts generate only 20% of 2018 spending, so a difference of 3% in new starts would change 2018 spending by less than 1%.

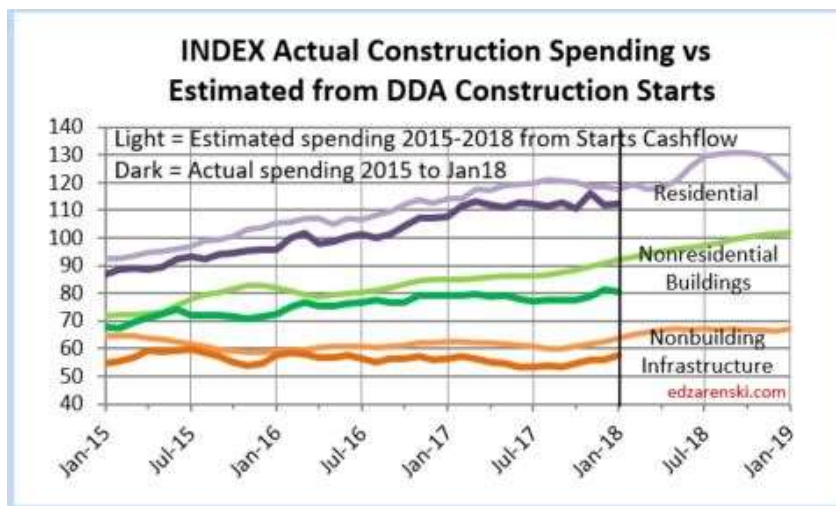
Cash Flow

Duration for projects in backlog helps to better predict spending activity over time. Apply the expected duration to Starts data to produce a Forecast Cash Flow and that shows the expected pattern of spending. Since Starts data is a sampling of about 60% of all construction projects, and since starts get spent over an extended period of time, starts dollar values can't be used to directly predict spending.

The rate of change in Starts Cash Flow gives an indication of the rate of change in future construction spending.

Cash flow indicates how much and when spending will occur. That allows a forecast of how spending from each month of previous starts will occur from all projects in backlog. Backlog could include projects that started two to three years ago, sometimes longer. Cash flow totals of all jobs can vary considerably from month to month, are not only driven by new jobs starting but also by old jobs ending, and are heavily dependent on the type, size and duration of jobs.

This plot shows actual spending history compared to that predicted by starts cash flow. Sometimes they diverge but over-all it's a pretty good indicator of the slope of growth.



2018 CONSTRUCTION SPENDING FORECAST – NONRESIDENTIAL BUILDINGS

The following table shows predicted cash flow from backlog on record as of March 20, 2018 and predicted starts that will generate future backlog in 2018.

CASH FLOW FROM STARTING BACKLOG AND NEW BACKLOG									
Cash Flow from Predicted Backlog		NonRes	Change	Rsidential	Change	Non-Bldg	Change	TOTAL	Change
\$ in billions	2017	Bldgs	Yr/Yr	Bldgs	Yr/Yr	Infrastr	Yr/Yr		Yr/Yr
Backlog at Start of Year	2017	254,225	12.4%	103,395	11.4%	260,306	11.1%	617,925	11.7%
Backlog CF Within Year	2017	179,789	7.2%	97,490	12.0%	135,785	4.4%	413,064	
Backlog ETC at End Yr	2017	74,436		5,905		124,521		204,861	
New Starts in Year	2017	258,509	6.2%	304,808	2.6%	194,623	4.3%	757,940	4.2%
New Bklg CF Within Yr	2017	48,353	0.8%	212,408	6.5%	26,435	-13.9%	287,196	
New Bklg ETC at End Yr	2017	210,156		92,400		168,188		470,744	
Total CashFlow in Year	2017	228,142	5.8%	309,898	8.1%	162,220	0.9%	700,261	5.6%
Backlog ETC End Year	2017	284,592	12.1%	98,304	-4.9%	292,709	12.5%	675,605	9.4%
CASH FLOW FROM STARTING BACKLOG AND NEW BACKLOG									
Cash Flow from Predicted Backlog		NonRes	Change	Rsidential	Change	Non-Bldg	Change	TOTAL	Change
\$ in billions	2018	Bldgs	Yr/Yr	Bldgs	Yr/Yr	Infrastr	Yr/Yr		Yr/Yr
Backlog at Start of Year	2018	284,999	12.1%	98,304	-4.9%	289,812	11.3%	673,116	8.9%
Backlog CF Within Year	2018	199,418	10.9%	95,323	-2.2%	146,976	8.2%	441,717	
Backlog ETC at End Yr	2018	85,581		2,981		142,836		231,398	
New Starts in Year	2018	272,717	5.5%	336,619	10.4%	196,564	1.0%	805,900	6.3%
New Bklg CF Within Yr	2018	51,750	7.0%	234,882	10.6%	27,468	3.9%	314,100	
New Bklg ETC at End Yr	2018	220,967		101,737		169,096		491,800	
Total CashFlow in Year	2018	251,168	10.1%	330,206	6.6%	174,444	7.5%	755,817	7.9%
Backlog ETC End Year	2018	306,548	7.7%	104,718	6.5%	311,932	6.6%	723,198	7.0%
includes Feb 2018 starts								edzarenski.com	

2018 Spending

Total construction spending in 2018 will reach \$1.330 trillion, an increase of 7.6% over 2017. Nonresidential Buildings make up most of the growth.

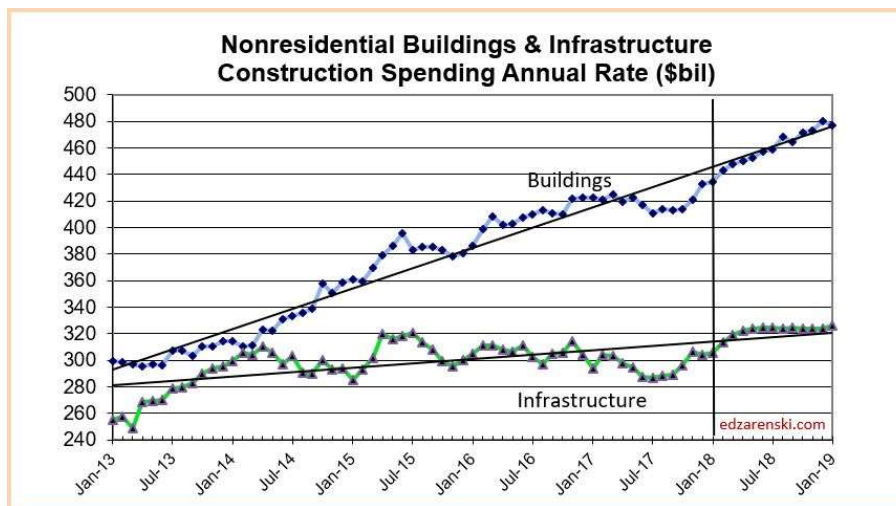
Nonresidential Buildings spending in 2018 is forecast to reach a new high, \$459 billion, an increase of 9.6% over 2017, surpassing the previous 2008 high. Educational and Manufacturing make up 55% of the growth.

For 2018, Educational spending is projected to increase 14%, the best increase since 2007. Educational starting backlog increased 10%/year for the last three years.

Manufacturing spending is projected to increase 12% in 2018. Manufacturing posted several very large project starts in 2017. Two thirds of all 2018 spending comes from projects started in 2016 and 2017.

Nonresidential construction is comprised of two very different sectors, nonresidential buildings and non-building infrastructure. Infrastructure spending is quite erratic, while nonresidential buildings spending, with only slight variation, has been climbing at a strong steady pace for more than 4 years. Some analysts track nonresidential total spending, but these two sectors perform so differently it helps to break them apart to track trends.

Nonresidential Buildings spending for 2018 is forecast to increase 9%. Institutional accounts for 52% of 2018 Nonres Bldgs spending growth, Commercial 27% and Industrial 21%.



You can find infrastructure Spending here [2018 Construction Spending Forecast – Mar 2018](#) and here [Down the Infrastructure Rabbit Hole](#)

Inflation

Outside of recession years, nonresidential buildings construction spending year over year growth dropped below 4% only SIX times in 50 years. The long term average inflation is close to 4%. Every time spending dropped below 4%, nonresidential buildings real volume declined that year.

Nonresidential buildings inflation forecast for 2018 is 4.5% to 5%. Spending needs to grow at a minimum of 4.5% just to stay ahead of construction inflation. Inflation in this sector has been at 4% or higher the last four years. A forecast of 2018 spending growth below 4.5% would suggest that nonresidential buildings construction volume is contracting. Economic activity does not indicate a non-recession low spending for nonresidential building construction. I expect volume growth in 2018.

Constant \$

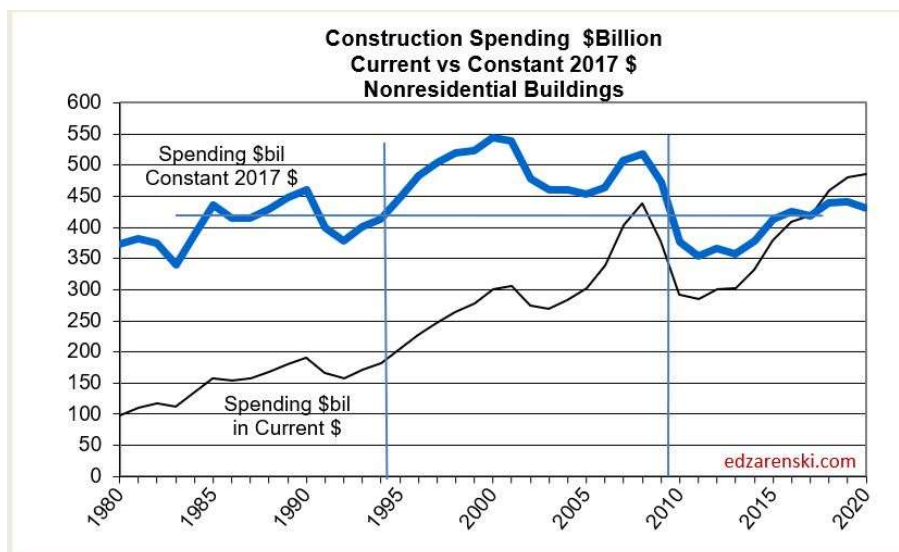
Nonresidential buildings construction spending in constant \$ (inflation adjusted \$) reached \$419 billion in 2017. For 2018 (adjusted to the baseline 2017\$) it will be \$439 billion.

Constant \$ spending shows all years from 1995 through 2010 had higher volume than the 2018 forecast. Volume reached a peak \$536 billion in 2000 and went over \$500 billion again in 2008.

In constant \$, 2018 is still 18% below the 2000 peak.

Spending in current \$ is almost back to the peak of \$438 billion in 2008, but volume is lower than almost all years from 1985 to 2010 and is still 22% lower than the 2000 high.

Volume in 2011 dropped to the lowest since 1983.



Nonresidential spending increased 43% since 2010, but there was 30% inflation. Real nonresidential volume since 2010 has increased by only 12%. Nonresidential jobs increased by 27% during that period, 15% in excess of volume growth.

Nonresidential Buildings

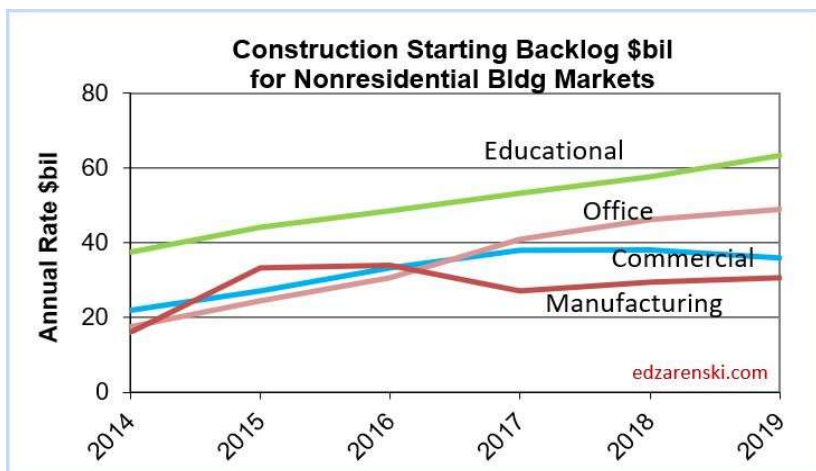
Nonresidential Buildings spending in 2018 is forecast to reach a new high, \$459 billion, an increase of 9.6% over 2017, surpassing the previous 2008 high. Educational and Manufacturing make up 55% of the growth.

\$ in billions % growth vs prior yr	U.S. Total Construction Spending Summary totals in billions current U.S. dollars					Forecast	Forecast	Forecast
	2013	2014	2015	2016	2017	2018	2019	2020
Educational	79.1	79.7	84.8	89.4	92.1	105.6	109.3	117.3
	-6.6%	0.8%	6.4%	5.4%	3.0%	14.7%	3.5%	7.3%
Healthcare	40.7	38.6	39.1	38.7	40.2	42.0	42.5	46.1
	-4.4%	-5.0%	1.3%	-1.1%	3.9%	4.3%	1.3%	8.5%
Amusement / Recreation	15.2	16.8	20.3	22.5	23.5	29.0	33.6	31.1
	-1.8%	10.3%	20.8%	10.8%	4.7%	23.1%	16.0%	-7.3%
Commercial Retail	53.2	62.8	65.9	76.6	87.7	91.4	91.9	89.6
	12.3%	18.2%	4.9%	16.2%	14.5%	4.2%	0.6%	-2.5%
Lodging	13.5	16.7	21.9	26.9	28.5	30.0	26.8	25.9
	24.5%	24.1%	30.9%	22.9%	5.8%	5.2%	-10.5%	-3.4%
Office	38.0	46.6	55.5	67.3	69.1	74.6	83.6	80.8
	0.5%	22.7%	19.2%	21.1%	2.7%	7.9%	12.2%	-3.3%
Manufacturing	50.5	58.6	79.9	75.3	66.6	75.1	81.4	83.7
	5.9%	16.0%	36.3%	-5.8%	-11.6%	12.9%	8.3%	2.8%
Other Nonres Buildings	13.1	12.8	12.1	11.5	11.4	11.4	11.4	11.4
	-8.2%	-2.1%	-6.0%	-4.8%	-0.7%	0.0%	0.0%	0.0%
Subtotal Nonres Buildings	303.2	332.7	379.5	408.1	419.0	459.0	480.5	486.1
% growth vs prior yr	0.8%	9.7%	14.1%	7.5%	2.7%	9.5%	4.7%	1.1%
Source \$ Data: U.S. Census Bureau, Department of Commerce. Actual Spending data includes revisions 2015-2016 issued 7-3-17 Forecast includes U.S. Census January 2018 year-to-date spending							edzarenski.com	

Nonresidential Buildings new starts are up 55% in four years. 2018 starting backlog is the highest ever, up 12% from 2017, up 24% in the last two years. Nonresidential Buildings 2018 starting backlog is 55% higher than at the start of 2014, the beginning of the current growth cycle. Spending is up 38% with 9% growth forecast for 2018.

80% of all nonresidential buildings construction spending in 2018 is already in backlog at the start of the year. Two thirds of all 2018 spending is from projects that started in 2016 and 2017.

2018 Educational spending is projected to increase 14%, the best increase since 2007. Starting backlog increased 10%/year for the last three years. Manufacturing spending is projected to increase 12% in 2018. Manufacturing posted several very large project starts in 2017.



Educational new starts total from the last five months of 2017 posted the highest 5mo total in at least seven years, 13% higher than the next best 5mo. The highest and 2nd highest quarters were within the last 15 months, so both still contribute fully to 2018 spending. 2018 signifies a turn-round in Public spending which has not posted significant growth since the recession.

Educational starts are up 6% in 2017. Starts averaged YOY growth of 6%/year for the last three years and have had steady growth since 2012. The growth in starts will support growth in spending over the next three years. Starts for 2018 are predicted to go up 10% and this will push 2019 starting backlog even higher.

Educational backlog has been increasing for 5 years or longer. In 2016 and 2017 starting backlog increased 10%/year. 2018 starting backlog is up 8% from 2017. Backlog growth has been exceeding spending growth for the last four years. This should produce higher spending growth for the next few years.

Educational spending in the second half 2017, up 10% from the 2017 low point, is now at a post recession high. We can expect to see another six to eight months of growth before spending levels off in mid-2018 at a sizable gain over 2017.

Educational spending previous highs of \$103-\$104 billion in 2007 and 2008 may be passed in 2018. Both new starts and backlog have increased every year since 2012. A build-up of backlog is indicating that 2018 spending could increase dramatically. At peak, educational represented 30% of all nonresidential buildings spending. Now it's only 22%. That's expected to increase slightly for the next three years.

Educational construction spending in 2018 is forecast to reach a new high, \$105 billion, an increase of 14% over 2017.

Healthcare starts have quietly increased to a record high over the last two years, up 30% for the 12 months through August 2017 vs the previous 12 months. So while 2017 starts gained only 1%, most of 2017 is part of the fastest period of post-recession growth in years. All those starts contribute to 2018 spending. Starts have been increasing since 2012.

Healthcare starting backlog increased 10% for 2017 and 5% for 2018. Backlog has been increasing unevenly and grew 30% in 4 years. Spending followed a fairly similar pattern. Backlog is increasing in 2019. Backlog is indicating spending growth for 2018 and 2019.

Healthcare spending has been very slow to recover, experiencing declines as recently as 2013, 2014 and 2016, hitting an 8 year low in 2014, when all other nonresidential building markets had already returned to growth. From 2012 through 2016, Healthcare spending dropped 9%. 2017 posted a gain of 3.9%. Backlog will support spending gains for the next few years but gains could be uneven.

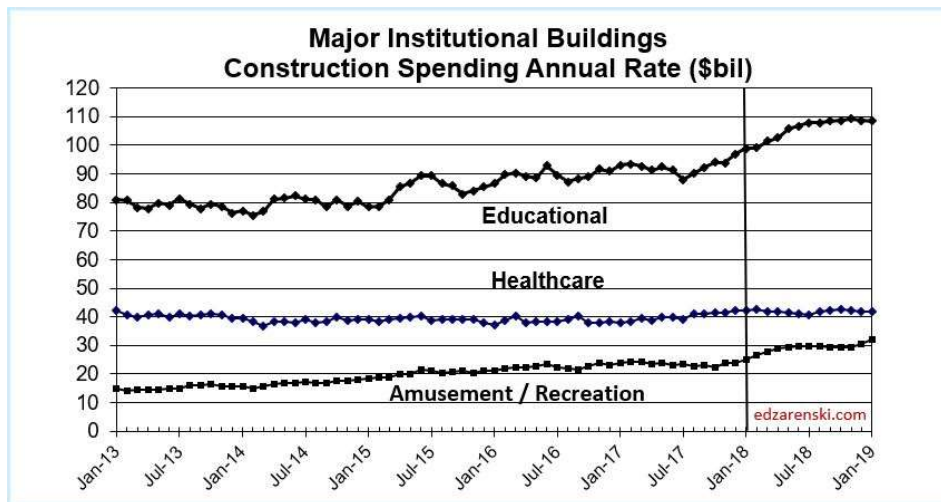
Healthcare construction spending for 2018 is forecast to reach \$42 billion, an increase of 4.3% over 2017.

Amusement/Recreation starts have been increasing at an average rate of 15%/yr for five years, up 30% in 2016 and 5% in 2017. Within the last six months, Aug 2017 to Jan 2018, there have been four very large billion dollar project starts. There has been a year's worth of new starts in six months.

Amusement/Recreation starting backlog increased 20%/yr for the last four years at the same time that spending was increasing at a rate of 10%/year. This means backlog will continue to support increased spending at least for the next few years.

Amusement/Recreation spending hit an 8 year low in 2013 but we've had 3 years of excellent growth of 10%/yr or more since then. 2017 spending increased only 5%. But backlog is indicating 15%-20% increases for 2018 and 2019. This market is only 5% of nonresidential buildings spending.

Amusement/Recreation construction spending for 2018 is forecast to reach \$29 billion, an increase of 23% over 2017.



Commercial/Retail starts finished 2017 essentially flat, but that is compared to peak starts in 2016. Starts for the 12 months Aug 2016 – June 2017 posted 10% growth over the previous 12 months. Starts had been remarkably strong from the 4th quarter 2015 though the 1st quarter 2017. Commercial/Retail starts have been increasing every year since 2010.

In 2010, **Warehouse** starts were only 1/3 of Store new starts. In 2018, Warehouse starts will be 50% greater than Store starts. Warehouse starts have increased between 20%-40%/year for seven years and are now five times greater than in 2010. [See this Bloomberg article Warehouses Are Now Worth More Than Offices, Thanks to Amazon](#)

Commercial/Retail starting backlog for 2018 will drop slightly from 2017. In addition, some of the big projects from the period of strong new starts growth are ending. This will slow spending after 7 years of strong growth. 2018 backlog still produces a spending increase but current projections show spending slows even more in 2019.

Commercial/Retail spending dropped from the high of \$90 billion in 2007 to \$40 billion in 2010. It has been growing steadily since reaching bottom in early 2011, and has recovered to an

annual total rate of \$88 billion in 2017. Spending increased an average of 13%/year for six years from 2012 through 2017. Growth will be positive in both 2018 and 2019 but will slow dramatically since we are currently near the all-time high.

Commercial/Retail construction spending for 2018 is forecast to reach a new high, \$91 billion, an increase of 4% over 2017.

Office construction starts finished 2017 down 2%, but only because 2016 had reached a recent high, similar too the highs in 1998 and 2006-2007. Starts have been increasing since 2010 with the strongest growth period of new starts in the 12 months July 2016 – June 2017, the highest 12 months on record, 60% higher than the previous 12 months. That high-volume period of starts will elevate spending in both 2018 and 2019. Data centers are included in Office.

Office starting backlog for 2017 was the highest in at least 8 years, more than double at the start of 2014 when the current growth cycle of office construction spending began. For 2018, backlog reached a new high, up 13% over 2017. Office starting backlog increased an average of 30%/year for the last 3 years. Backlog growth should support very strong spending increases into 2019.

Office spending dropped more than 40% from \$68 billion/year in 2007-2008 to \$37 billion from 2010 through 2013. From 2014 to 2016, spending increased by more than 20%/year, but in 2017 it slowed to only 3%. That was unusual and unexpected since starts and backlog had both reached 10 year highs. Possible explanations might be that a very large number of projects were canceled, 2016 starts were overstated or potential revisions to 2017 Office spending could be released in July.

Office construction spending in 2018 is forecast to reach a new high, \$75 billion, an increase of 8% over 2017.

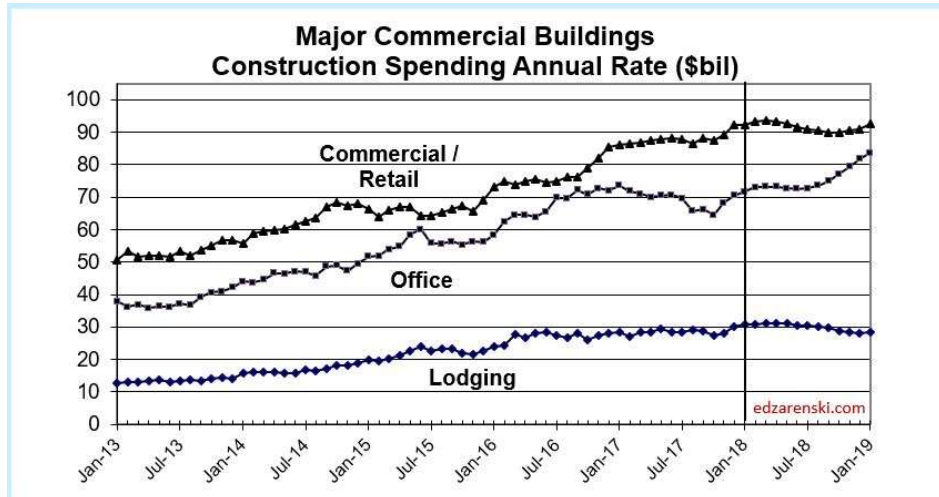
Lodging starts in 2017 finished down 5%. From 2010 to 2016 starts averaged over 30%/year growth for six years. In 2018, Lodging starts could decline. But, even though new starts are down in 2017 and expected down in 2018, those will still be two of the three highest years. Peak starts were in 2016.

Lodging starting backlog is up 13% for 2018, having already averaged increases of 30%/yr since 2015. Lodging starting backlog jumped from \$7 billion/yr in 2014 to \$17 billion/yr in 2018. It has supported similar spending growth. Although 2016 was peak starts, it looks like 2018 will be peak backlog.

Lodging spending recorded the largest drop of any market, falling 75% from \$36 billion in 2008 to \$9 billion in 2011. However it also recorded the strongest rebound of any market, climbing 20% to 30% per year for the 5-years 2012-2016. In 2011, Lodging dropped to only 3% of total sector spending. It has rebounded to 7% in 2017.

Lodging spending will increase by 5% in 2018. It's still not back to the previous high of \$36 billion in 2008. Beyond 2018, spending will decline, but this is after 6 years of growth totaling 300%.

Lodging construction spending for 2018 is forecast to reach \$30 billion, an increase of 5% over 2017.



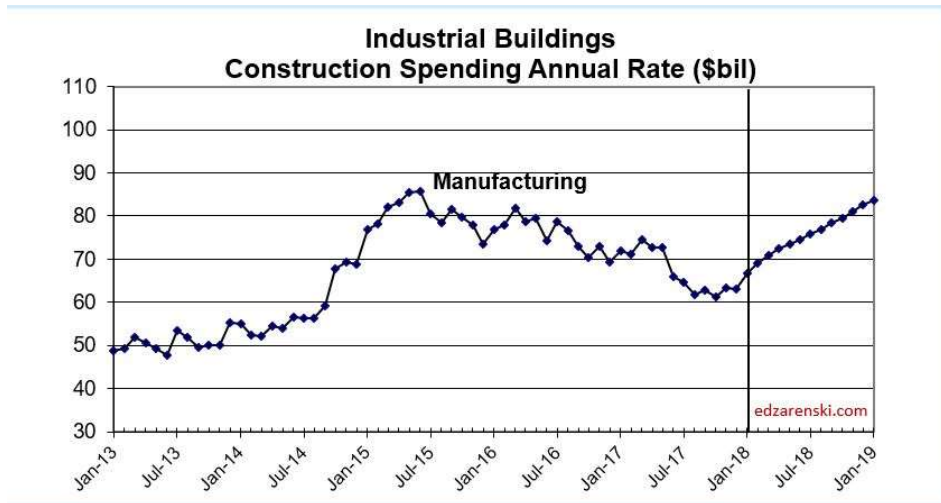
Manufacturing is the only nonresidential building market that did not finish 2017 with new starts totals at or near post-recession highs. Manufacturing reached record high starts in 2014 and record spending in 2015. Manufacturing posted a 100% increase in new starts in 2014 that drove starting backlog and spending to new highs in 2015 and 2016. New starts declined 25%-30%/year for the next two years after the high in 2014. 2017 starts increased 20%, but that is still 35% lower than 2014.

Manufacturing backlog remained equally high in 2015 and 2016, but then dropped 20% in 2017. 2018 backlog will see an increase of 8%. Starting backlog dropped 20% in 2017 and spending dropped 12%. That was expected. What was unexpected is that 2017 posted another very strong year of new starts and that pushed 2018 starting backlog back up, but not quite as high as 2015-2016. This will support a spending rebound in 2018-2019 after a drop of 18% in the last two years.

Manufacturing spending was forecast to fall 11% in 2017 after peaking in 2015 from massive growth in new starts in 2014. Based on cash flows from starts, from April 2016 through the end of 2017 spending was expected to decline in 17 of 21 months. It did decline in 14 of those months. The forecast is now for very little declines in the next two years.

Manufacturing spending for 2017 is \$66 billion versus \$75 billion in 2016 and \$80 billion in 2015. Although 2017 dropped to \$66 billion, that was still higher than any but those two highest years. The 2017 spending drop of 11% is the largest drop since pre-recession, but it is measured compared to the peak years. Manufacturing in some reports is referred to as Industrial. 2019 spending could surpass the 2015 peak.

Manufacturing construction spending for 2018 is forecast to reach \$75 billion, an increase of 13% over 2017.



Religious and Public Safety spending of \$11-\$12 billion/year represents only 2.5% of total nonresidential building spending. In 2008-2009 it was 5% of the total. The religious building market has been declining since 2002 and is down 55% since then. Public Safety peaked in 2009 and has declined every year since, now down 40% from the peak. I don't track starts or backlog for these markets. I do track monthly spending and carry a forecast in the Table of Construction Spending.

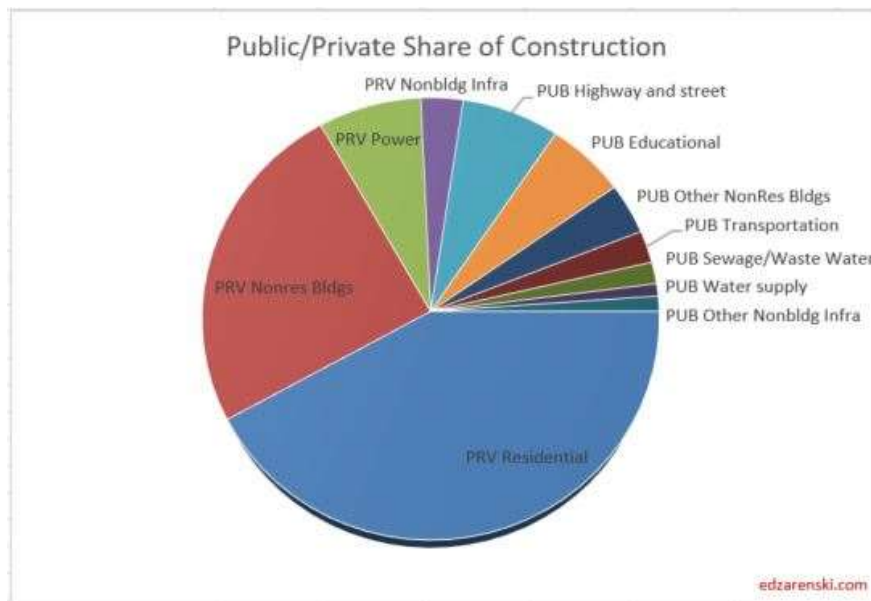
Religious and Public Safety currently amounts to \$11 billion/year. A 10% change in spending of \$1 billion in a year would amount to only 0.2% change in all nonresidential buildings spending. This category doesn't often change by 10% yr/yr, so its affect is small.

Public Spending

Public construction is a subset of Nonresidential Buildings and Non-building Infrastructure and includes about 1% of Residential.

Only about 25% of all Nonresidential Buildings spending, about \$100-\$110 billion, is publicly funded, mostly Educational. In total, this makes up about one third of Public spending.

- Nonresidential Buildings is 25% public (mostly institutional), 75% private.
- Educational, Healthcare and Public Safety are Public Nonres Institutional Bldgs
- **Public Institutional = \$100 billion**, mostly Educational (\$70b).

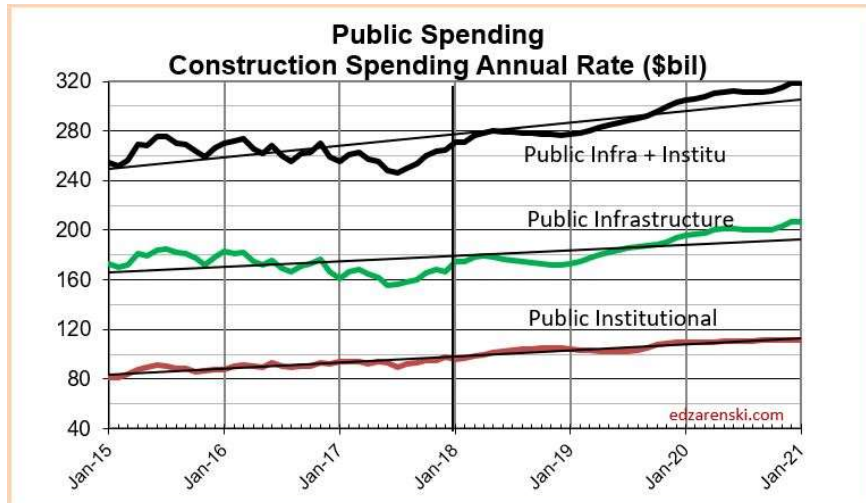


The largest market contributing to public spending is Highway/Bridge, 32% of total public spending. Major Nonresidential Buildings markets that contribute to public spending are Educational, 26% of total public spending, and Office, Healthcare, Public Safety and Amusement/Recreation which each account for about 3%.

Educational is 80% public, Transportation 70%, Amusement/Rec 50%, Healthcare 20%, and Power is 10% public, along with few other smaller shares.

Public spending hit a low in June 2017. It has been increasing since then. Public Educational, in the second half 2017, up 10% from the 2017 low point, is now at a post recession high. We can expect to see another six months of growth before spending levels off in mid-2018 at a sizable gain over 2017.

Educational alone accounts for about 30% of the Public spending growth in 2018. Educational new starts total for the last three months posted the highest quarter in at least seven years. The 2nd highest quarter was also within the last 12 months, so both will contribute fully to 2018 spending. 2018 signifies a turn-round in Public spending which has not posted significant growth since the recession.



For the 2018 Forecast Summary see [2018 Construction Spending Forecast – Mar 2018](#)

The 2018 Outlook link [Economic Outlook](#)

Here's how to use the Starts data and how it affects spending [Construction Starts and Spending Patterns 9-26-17](#)

Construction starts data in this report references [Dodge Data & Analytics starts data](#)

See these posts for additional info

[Starts Trends Construction 2018 Forecast - Fall 2017 11-8-17](#)

[Backlog Construction 2018 Forecast - Fall 2017 11-10-17](#)

See also [Publicly Funded Construction 2-28-18](#)

For more on Public work see [Down the Infrastructure Rabbit Hole 2-16-18](#)

For effects of inflation see [Constant Dollar Construction Growth 11-2-17](#)