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UW Cancer Center at ProHealth Care

BUILDING FOR THE FUTURE

Construction Economics
Market Conditions in Construction
Executive Summary



Winter
2015-2016

UW Cancer Center at ProHealth Care
Pewaukee, Wisconsin

Gilbane

Summary

CONSTRUCTION OUTLOOK

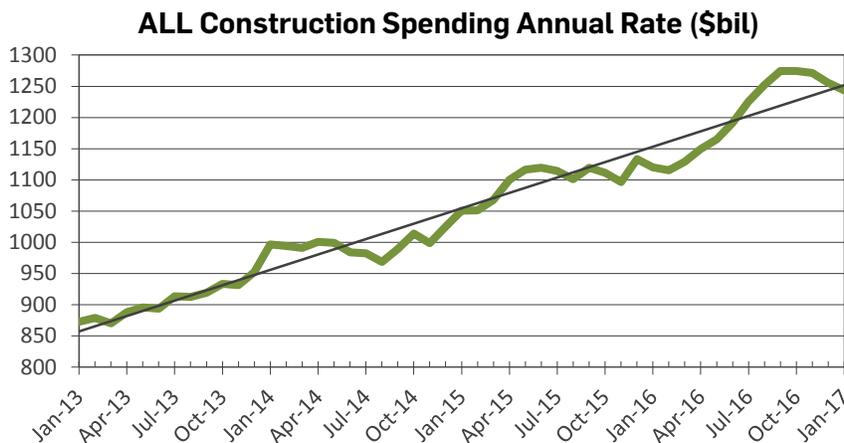
The Construction Spending BOOM in 2015 is being led by nonresidential building construction. Nonresidential buildings spending year-to-date (YTD) through November increased 17.6%, up \$53 billion over the same period for 2014. Residential buildings spending YTD increased 13%, up \$45 billion, and nonbuilding infrastructure projects YTD decreased 0.2%, down less than \$1 billion. Nonresidential buildings will repeat this elevated activity with 13.7% growth in 2016.

- Construction spending will grow 10.7% for 2015 and 9.7% in 2016. Total spending in 2015 will be \$1.1 trillion.
- Three-year growth from 2014 to 2016 for total construction spending may reach 30%, setting an all-time high. Growth from 2013 to 2015 will reach 27%, already the second highest growth period ever recorded.
- In the first quarter of 2015, the seasonally adjusted annual rate for all spending averaged near \$1.05 trillion. In the last quarter of 2015, spending will average greater than \$1.1 trillion.
- 2015 and 2016 spending advances will be supported by the strongest gains in nonresidential buildings in eight years.
- Construction starts for new nonresidential buildings for five of the last six quarters were the highest since Q3 2008.
- Residential spending has averaged 15% annual growth since 2012.
- Construction added 1 million jobs in five years. 800,000 jobs were added in the last three years.
- Spending for residential and nonresidential buildings will increase at an average annual rate of growth near 1.0% per month for the next 12 months.
- Nonbuilding infrastructure spending will remain near flat in 2016. There will be gains in spending midyear before we experience another mild slowdown later in 2016.

**\$1.115
Trillion**

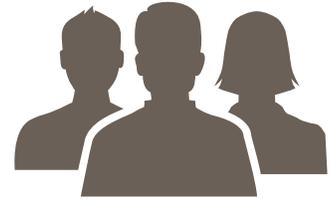
**Average seasonally
adjusted annual rate
for all spending
in Q3 and Q4 2015.**

FIGURE A:
All Construction Spending Rate of Growth 2013-2016



RESTRAINTS TO GROWTH

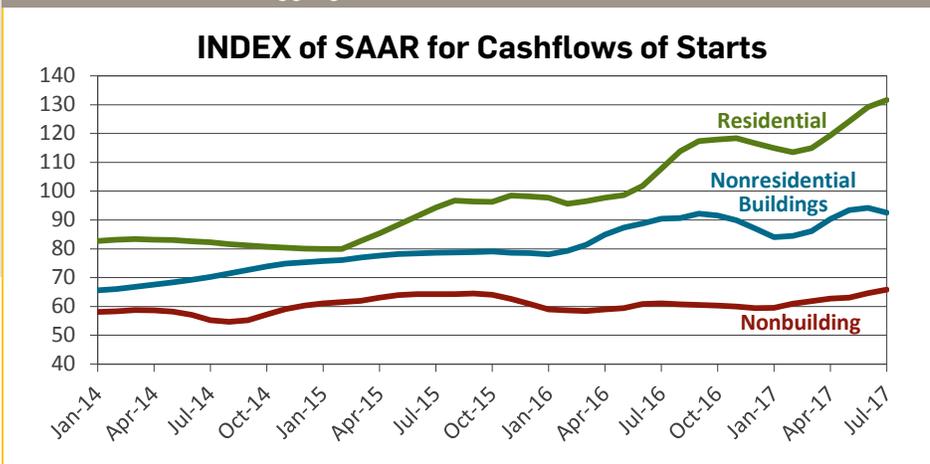
- › The BLS Job Openings and Labor Turnover Survey (JOLTS) for the construction industry for October is at 139,000 unfilled positions. Although down slightly this month and down from the summer peak, the openings rate has been trending upward since 2012. A relatively high rate of openings generally indicates high demand for labor and could lead to higher wage rates.
- › In a 2015 Associated General Contractors (AGC) survey, 80% of contractors indicated some difficulty in acquiring trained workers.
- › According to a June 2015 survey by the National Association of Home Builders (NAHB), 61% of homebuilders during the previous 12 months had raised home prices due to labor shortages across construction trades.
- › New nonbuilding infrastructure project starts have been mixed over the last two years, with both new highs and new lows. Even with five months of new highs in 2015, the up and down spending pattern we've been seeing will continue at least until the end of 2016.
- › Housing starts were off to a slow start. In February and March, new starts dropped well below expectations, holding down total starts for 2015. The consensus forecast was 1,134,000 and the final total will be closer to 1,110,000, an increase of only 110,000 new starts in 2015.



Hiring workers with the right skills will continue to be a key constraint to economic growth through 2016.

FIGURE B:

Construction Starts – Aggregate Cash Flow of Starts 2014-2017



THE EFFECTS OF RAPID GROWTH

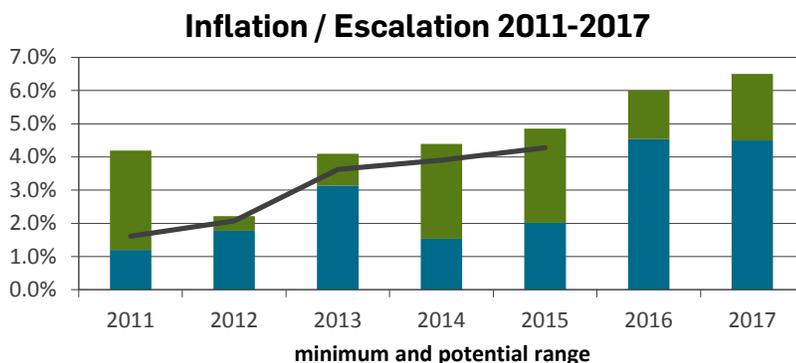
- › From 2012 through 2014, the most current completed period, construction spending grew 24%. Inflation was 13%, so volume increased only 11%. However, work output increased by 13%. In this current growth cycle, productivity loss is at 2%.
- › 2015 predicted spending growth is near 11%. The 2012-2015 four-year period of spending growth (35%) will be greater than the 2003-2006 rate (33%) and 1996-1999 rate (32%), which were the two fastest growth periods on record with two of the highest rates inflation and productivity loss.
- › As work volume continues to increase over the next few years, expect productivity to decline. There are many reasons why this will occur, among them: working longer hours until new workers are brought on; working more days; hiring less qualified workers; and acclimating new workers to the crew.
- › Growth in nonresidential buildings and residential construction in 2014 and 2015 has led to more significant labor demand. This may lead to labor shortages in some trades. This will drive up labor cost.
- › Construction inflation is very likely to advance more rapidly than some owners have planned for, potentially requiring that some project budgets be revisited before projects can begin.
- › Construction inflation in rapid growth years is much higher than average long-term inflation.
- › Long-term inflation is 3.3% for nonresidential buildings and 3.5% for residential buildings.
- › During rapid growth periods, inflation is 8% for nonresidential buildings and 9% for residential buildings.



2015 is a breakout year for nonresidential buildings construction spending, expected to finish at 17% growth. With expected growth of more than 13% in 2016, the three-year period of 2014-2016 could reach historic growth. Escalation will climb to levels typical of rapidly growing markets.



FIGURE C:
Inflation/Escalation 2011-2017



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The information in this report is not specific to any one region. The information is limited to the United States and does not address international economic conditions.

Author Ed Zarenski, a 42-year construction veteran and a member of the Gilbane team for 35 years, managed multi-million dollar project budgeting, owner capital plan cost control, value engineering and life cycle cost analysis. As a construction economics analyst, he compiles economic information and provides data analysis and opinion for this report.

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Data Sources

Along with countless news articles, these sources are used for data in this report:

- › American Institute of Architects – www.aia.org/practicing/economics/index.htm
- › American Iron and Steel Institute - steel.org
- › Associated Builders and Contractors - abc.org
- › Associated General Contractors of America - agc.org
- › Bloomberg L.P. Financial News - Bloomberg.com
- › Bureau of Labor Statistics - Stats.BLS.gov
- › Construction Industry Round Table – cirt.org
- › CMD - CMDGroup.com (formerly Reed Construction Data)
- › Data Digest – DataDigest
- › Dodge Data & Analytics - construction.com/about-us/press
- › Economic Cycle Research Institute - businesscycle.com
- › Engineering News-Record - ENR.com
- › Financial Trend Forecaster - Fintrend.com
- › FMI Management Consulting - FMINET.com
- › IHS Global Insight - ihs.com
- › Institute for Supply Management - ism.ws
- › Metal Prices – metalprices.com
- › National Association of Home Builders – NAHB.org
- › Producer Price Indexes - bls.gov/ppi
- › Random Lengths - randomlengths.com
- › U.S. Census Bureau - census.gov

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