FMI

Industry Focus. Powerful Results.™

U.S. Markets Construction Overview 2017

Featuring FMI's Construction Outlook

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"Looking back to the health care industry leading up to the Affordable Care Act, owners sat still or delayed projects in the year leading up to the legislation, because they didn't know what the rules of the road would be and what the legislation meant for their capital programs. We're in a similar state of uncertainty now, because no one knows what's going to happen, what the infrastructure proposals will look like, and at what pace the changes will occur."

Chris Daum, CEO
FMI Corporation

PLAN FOR CONTINGENCIES, EXECUTE BASED ON THE FACTS

FMI executives share their retrospectives on how 2016 shaped up for the engineering and construction (E&C) industry and give valuable insights into what's ahead for the next 12 months.

By Chris Daum, CEO, FMI Corporation

The election was a big point of uncertainty and contention. With that behind us, many of our clients are cautiously optimistic—if not even bullish—on the U.S. engineering and construction industry going into 2017. Favorable general economic conditions, a high level of consumer confidence and the potential for tax reform and increased federal spending all promise to keep the industry on track for yet another positive year.

Of course, with this optimism comes a dose of pragmatism, including uncertainty about what these new policies and regulations will look like and whether Congress will have the ability (or the will) to enact legislation that's favorable to the E&C industry. Given that we are in an era of sustained deficit spending and escalating national debt, significant levels of conflict could lead to a political stalemate. This scenario could impact tax and health care reform, infrastructure spending bills and other key initiatives in which all stakeholders are at odds, and, consequently, everything comes to a standstill.

For companies in engineering and construction, infrastructure and the built environment, the question becomes: Are you going to push forward with capital projects that are on the drawing board right now, or are you going to wait and see what happens? To the extent that this indecision drags on for a substantial amount of time, the result could be fewer construction starts and more project delays. That's the hidden risk behind all of this optimism that we're observing in the marketplace right now.

Finally, ongoing political and economic events in the global arena may also shape and influence U.S. economic conditions in 2017, and therefore we should all be monitoring these dynamics very closely as the year progresses.

> “*We're in a perfect storm right now where there are abundant opportunities in the marketplace but not enough labor to do the work. This is further compounded for those firms that are simultaneously transitioning ownership and management to the next generation. It sounds simple in retrospect, but the firms that remained committed to investing in people and perpetual succession management through the downturn are much better-positioned than those that didn't.*”
>
> **Scott Winstead, President**
> **Management Consulting**

“ *The companies that are just chasing opportunities tend to struggle the most. Right now, it’s a feast out there, and companies can’t control their own addictions to pursue new markets. They haven’t learned how to say ‘no,’ and they get into trouble and wind up burning a lot of energy trying to get out of those predicaments—versus enjoying the ability to create a stronger equity base that establishes success for the future.* ”

Ron Magnus, Managing Director
FMI's Center for Strategic Leadership

DON'T SPEND AHEAD OF THE MARKETPLACE REALITIES

In today's VUCA world, an environment characterized by volatility, uncertainty, complexity and ambiguity, our advice to clients is: **Plan for contingencies, expand your scenarios to the upside and always execute based on facts**. Put simply, don't let your optimism and bullish outlook go unbridled in an environment where unknowns and challenges are lurking around the next corner. To avoid any unpleasant surprises as 2017 progresses, focus on what's real rather than spending ahead of marketplace realities and your firm's ability to perform.

If you're the CEO of a company that's operating successfully in the private markets right now, for instance, think twice before shifting to public markets simply to claim a stake in the proposed infrastructure plans. If you're not already in those markets, we advise waiting for and vetting the validation of sustained, long-term events before making any major moves in this direction.

If there's one thing we all learned from the last recession, it's that abandoning core and incumbent markets to chase the next best thing is not a sustainable growth strategy. Instead, preserve your core business and take advantage of any market opportunities that open up when your competitors get distracted by chasing the next big thing. Keep your core markets, core services and core capabilities very strong, and stay loyal to your key clients. It's what you execute best on. Sustaining and expanding work with existing customers in known markets often leads to more stable business and better profits over time—regardless of external market dynamics.

Questions that company leaders should be asking themselves right now include:

- What do you want your company to look like five years from now? Or 10 years from now?
  - How do you want to invest in growing your equity base?
  - Do you build and invest through mergers and acquisitions?
  - How do you invest in building your company with top-tier talent and a pipeline of such talent?
  - Are you investing in building a top-performing executive team for today and the future?
  - Can you use this period to invest in operational excellence that creates a culture with long-term payback/ROI?
- What boundaries have you put in place that prevent you from chasing the next shiny object/opportunity?
- If you identify an opportunity, does it take your company closer to your Big Hairy Audacious Goals (BHAG), or is it merely a detour?

These are just a few of the important questions that companies need to be asking as we move into 2017 and as new opportunities start to surface.

> *From a risk management standpoint, companies should clearly define their risk posture and build their market strategies (where to play and how to play) accordingly. Given that more construction firms fail in good times than bad, focus is the keyword.*

Scott Winstead, President
Management Consulting

FAILING WHEN TIMES ARE GOOD

As we like to say, "Contractors don't starve to death; they die from gluttony." In other words, contractors don't fail for want of work or because times are tough. They fail because they get too much work, too fast, with inadequate resources, and then they get into financial trouble and run out of cash.

In light of today's severe labor shortages, this problem becomes particularly acute in an environment where demand is expected to accelerate in one or more sectors of the economy (i.e., a focus on infrastructure). Furthermore, consider the fact that between 2009 and 2015, the average number of months of contractor backlogs (for all types of contractors) increased by 33 percent. At the same time, contractor margins are now tighter, contractual conditions and projects more complex, and 1.5 million fewer construction workers remain in the industry (compared to pre-recession levels). All this to say: **Think twice before you introduce more risk variables by abandoning your core markets.**

As we move further into 2017, we caution E&C firms to be wary when chasing down new work opportunities. Even though it's a natural inclination, this strategy can ultimately lead to greater levels of insolvency, bankruptcy and other issues for the industry. It's almost inevitable that companies will get ahead of themselves and spend their balance sheets chasing dreams, news and promises. To avoid these traps, companies need to focus on the facts and business fundamentals and keep their eye on the ball. Know the markets that you're going into, the lines of business that you're taking on, or the vertical sectors that you're exploring—particularly if these are new to you.

> "*The dollars that are tied to the construction industry recently exceeded $1 trillion and are increasing. And the variance is narrowing between the percentage of GDP attributed to construction in relation to the general economy. In other words, the rate of increase for construction—which was lower up until a few years ago—is now aligned with that of the general economy. Thus, we're seeing the convergence of construction returning to normal for the first time since 2007, while at the same time, the unemployment rate is dropping. So right now, nearly all of our clients are reporting increased business backlogs—they have more business than they even know what to do with—and their greatest challenge is the inability to procure labor to handle those projects.*"
>
> **Sal DiFonzo, Managing Director**
> **FMI Compensation**

LOOKING AT NEW ALLIANCES AND PARTNERSHIPS

Following years of sustained incremental growth, the industry may experience an acceleration of larger public infrastructure programs and more opportunities for public-private partnerships (P3s) to fund new projects. One of the questions we hear a lot from clients right now is, "If we're operating at full capacity, how do we leverage opportunities that new customers or adjacent markets are presenting to us?" **In these scenarios, joint ventures, partnering or outright mergers and acquisitions can be an appropriate strategic move.**

Consider the fact that more than 30 sizable E&C firms from Asia, South America, Europe and the Middle East are currently showing a strong interest in the North American infrastructure market. These companies often bring significant resources, capabilities and project resumes, including project finance elements that are often lacking among midsized and large U.S. firms.

Some of these firms are looking to diversify beyond their dormant, declining economies, while others have grown too large for their current markets and must expand internationally in order to utilize their acquired resources. Seeking design-build partnerships and firms of scale, these international companies often have self-perform capabilities and can position themselves as part of the proposed infrastructure spend. This could present significant opportunity for U.S. and Canadian firms that can partner with, form joint ventures with or even be acquired by these larger players that want to gain a foothold in the North American market. If you choose this strategy, make sure you have done your research around how to build great partnerships, and assess how these partnerships align with your core purpose as an organization and your culture.

Because local delivery capability will be in high demand, such alliances or mergers could provide a strong underpinning for firms that want to get involved with large-scale national projects.

KEEPING AN EYE ON THE FUTURE

Today's political and economic environment leaves many unanswered questions, but there are some key trends that will continue to shape our industry well into the future.

For example, consider the evolution of smart buildings and smart infrastructure: a web of interconnected systems and devices with lights, smoke alarms, HVAC systems, security, water, appliances and other systems managed through a central interface. In the past, these systems—while perhaps sophisticated in their own right—existed independently and did not communicate with one another. Today, manufacturers are rushing to find ways to connect and integrate their products with all components of the building and related monitoring services, and then linking the information back to the building owner.

Exactly which companies will control the interface is still an open question, but the stakes are obviously high. Buildings represent the largest energy end use in the world, consuming roughly half of global electricity. This fact has been a driving force in the early development of the smart building, which saves money by optimizing the efficiency of electrical systems, matching occupancy patterns to energy consumption, and improving equipment maintenance with real-time data collection.

Innovative companies that adopt and implement new manufacturing and prefabrication techniques in order to work smarter, faster and safer are also transforming the industry. This "silent movement" is happening in pockets across the country, in different market sectors and across a range of project types and sizes. And while this may not be a sweeping transformational disruption across the entire E&C space just yet, there is no doubt that transformation is happening.

Firms that anticipate and adapt to changing circumstances will not only survive the changes impacting the E&C industry, but also thrive on future shifts. Going into 2017, **keep an eye on movements and events, both within the industry and beyond its boundaries**, as these long-term trends continue to shape our industry.

> *"Within the energy services and cleantech sector, FMI expects to see continued growth, although it will be uneven. The long-term trend toward distributed energy resources will continue. The cost of distributed generation (like solar) and energy storage (like batteries) will continue to fall. More efficient and better technologies (like LEDs, efficient HVAC and energy management systems) will drive retrofit opportunities for improvements to energy–using systems in buildings."*

Tim Huckaby, President
FMI Capital Advisors, Inc.

CAUTIOUS OPTIMISM

Looking ahead in 2017, there is cause for continued optimism for the North American E&C industry. However, beyond a sound economy and other traditional demand drivers, there is growing hype for a boom market in infrastructure spending, which to date is nothing more than speculation based on the new presidential administration. Our caution to clients is similar to the old Wall Street bromide, “buy the rumor and sell the news.” Only in this case, we should all **prepare for the possibility, but invest behind the facts.**

FOURTH QUARTER 2016 CONSTRUCTION OUTLOOK

CONSTRUCTION FORECAST

TOTAL NRCI INDEX SCORE **FELL** FROM

57.3 to 56.9

Third Quarter Fourth Quarter

As always, the construction outlook has a mixture of good signs and bad. For instance, the unemployment rate for construction workers is now in line with the unemployment rate for all workers at around 4.5%. There are still many people unemployed who aren't in the count as job seekers anymore, and that will be a difficult problem to fix as workers are displaced by technologies or employers relocating, growing, downsizing, etc. The construction industry is in the middle of this situation as employers find it difficult to hire skilled workers at the right time and in the right place. Employment, along with the fight for higher/lower wages that goes with it, will continue to be a challenge for the economy

- GDP is up.
- Employment remains high.
- Wages in the construction industry are up.
- The Federal Reserve managed to increase the interest rate and expects to have more increases in 2017.
- The CPI remains low.
- The price of oil and gas is working its way up again.
- Consumer confidence is high.

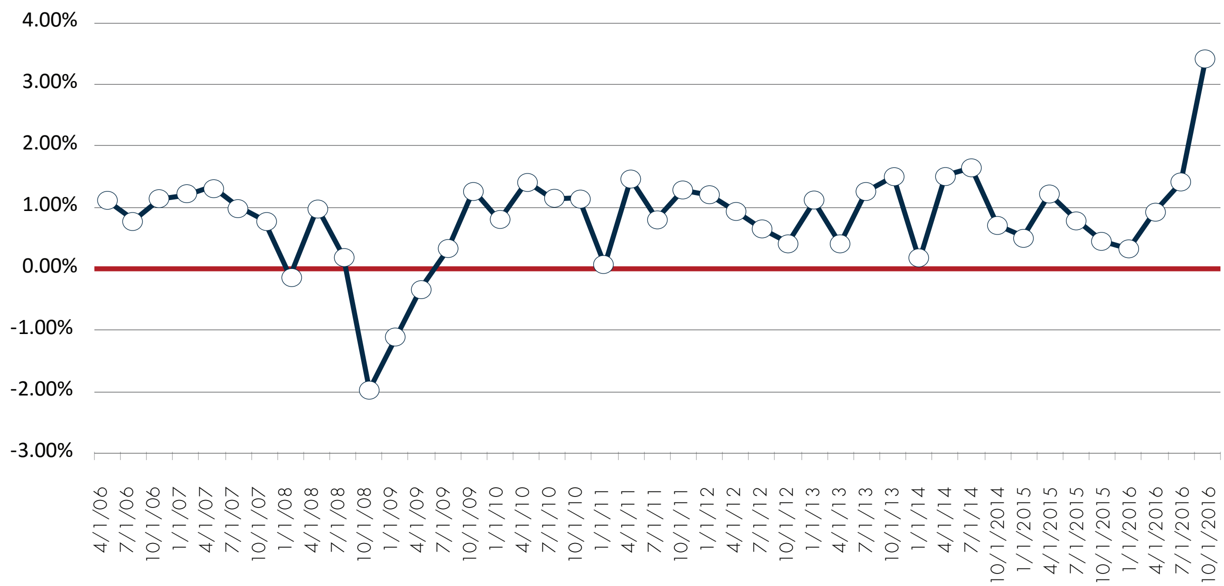
Even considering many good signs that the economy is tracking in the right direction, there are no signs of over-exuberance in the forecast. For construction, FMI expects a 1% increase in construction-put-in-place growth over the 5% in 2016. Our forecast is tempered by many forces, including a downtick in the fourth quarter FMI Nonresidential Construction Index, which dropped just 0.4 points to 56.9. In the fourth quarter of 2015, the Index stood at 59.5. While the trend indicates a slower outlook for nonresidential construction, the Index is still solidly in positive territory as it has been since the first quarter of 2012. While most of the economic components of the NRCI slipped lower, backlogs increased from 10 months to 12 months with expectations that backlog growth will continue in the near term. Looking at markets, the outlook continues to be positive for all markets through 2017, but the three-year outlook is less rosy.

Many NRCI panelists are concerned about how many global and political events might affect the economic picture in the next year. We asked construction executives which events normally made it into the planning cycle. For instance, from the survey comments, we heard: "We do a lot of senior care work, and the residential housing market affects this work directly. When the cost of homes plummets, seniors postpone entering these facilities, which hurts our business." Overall, the top-three ranked positive factors included private sector investment activity, specific construction market sector trends, and consumer sentiment and spending decisions. U.S. monetary policy and the results of the elections also ranked as high positives for 2016 expectations. On the other hand, the top-ranking issue on the negative side was the results of the U.S. elections. This was followed by concerns about unemployment rates and U.S. monetary policy.

Given the general economic caveats above, even though we expect slow growth for construction overall, there will be some significant changes in given market sectors and regions. (See detail below.) For instance, lodging construction has been on a major capital improvement plan in recent years. We expect growth to drop from 19% to just 9% in 2017. Manufacturing construction took a breather in 2016, but we expect it to get back in the game at 8% growth for 2017. (And this is without being certain what incentives or disincentives the incoming administration will enact.) Growth in office space has had a significant recovery in the past three years, and even at just 8% growth for 2017, it will continue to outpace the overall economy in 2017. Health care construction will likely get more attention than it would like in 2017, as the health care system is again overhauled. At this time, we expect a 4% growth rate for 2017 in health care construction.

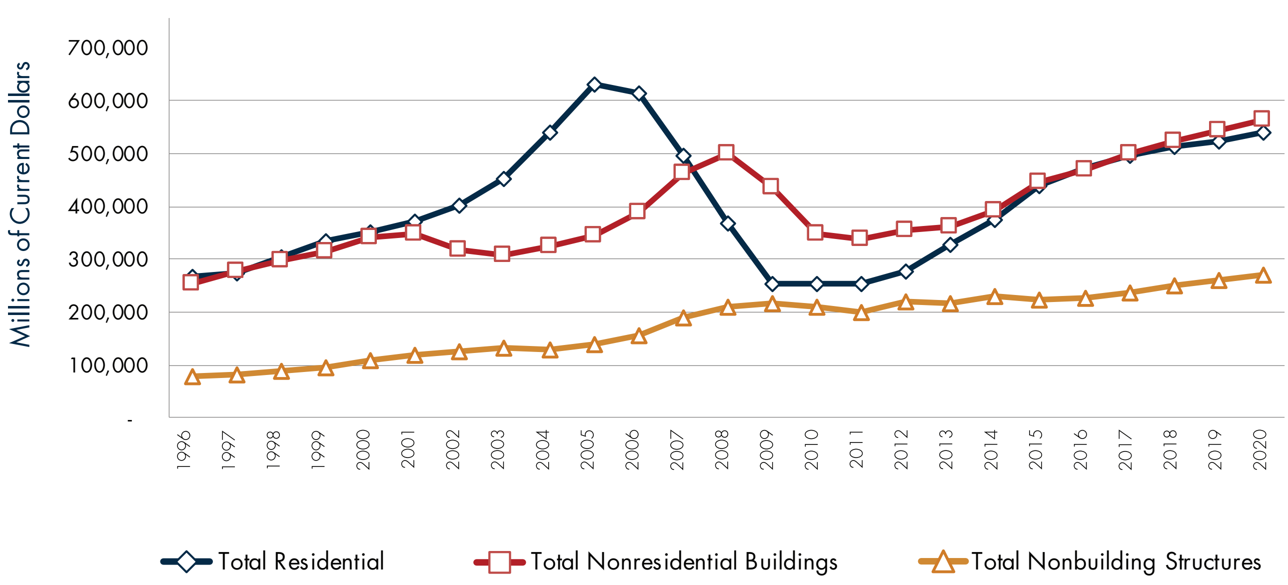
As is the case most every year, 2017 will offer many changes and challenges. And like most every year in modern history, those changes and challenges will seem to come at us faster and faster. For those who can find their way through the morass of information and changes to be in the right market at the right time, it could be a great 2017. For others, there are still many opportunities to chase in a changing economic landscape.

GROSS DOMESTIC PRODUCT
PERCENT CHANGE, QUARTERLY, SEASONALLY ADJUSTED ANNUAL RATE



Source: FMI Research Services

FMI CONSTRUCTION PUT IN PLACE
ESTIMATED FOR THE UNITED STATES



Source: FMI Research Services

RESIDENTIAL CONSTRUCTION

After four years of double-digit growth, we expect single-family housing to gain 7% for 2016 and grow by 6% in 2017. With the prospect that interest rates will continue to rise in 2017, housing affordability will be a greater concern. If job growth continues along with wage increases, it may offset rising interest concerns. It may be the good weather or the expectation of higher costs, but housing starts in October 2016 at 1,225,000 were 4.6% higher than during the same period in 2015. Looking out past 2017, affordability and choice of smaller homes will keep growth on the low side.

The market for multifamily homes slowed to just 9% growth in 2016. That is closer to a long-term average before the Great Recession. In the rush to recover since the recession, multifamily housing has become overbuilt in some regions. However, vacancy rates are likely to recover, especially if potential homeowners continue to sit on the sidelines. One must also consider continued tight housing supply, as the current inventory of houses for sale in the U.S. is just 5.1 months compared to 12.2 months at the height of the recession. That is a national average, so consider that many hot metro areas have very high shortages and lower affordability. (See Appendix for Monthly Supply of Houses in the U.S.) Millennials also face a considerable mountain of student loan debt as well as difficulty finding jobs that pay what they expected to earn to decrease their debts. These factors and others have kept many living with their parents longer than earlier generations.

SINGLE-FAMILY HOUSING

UP 6%

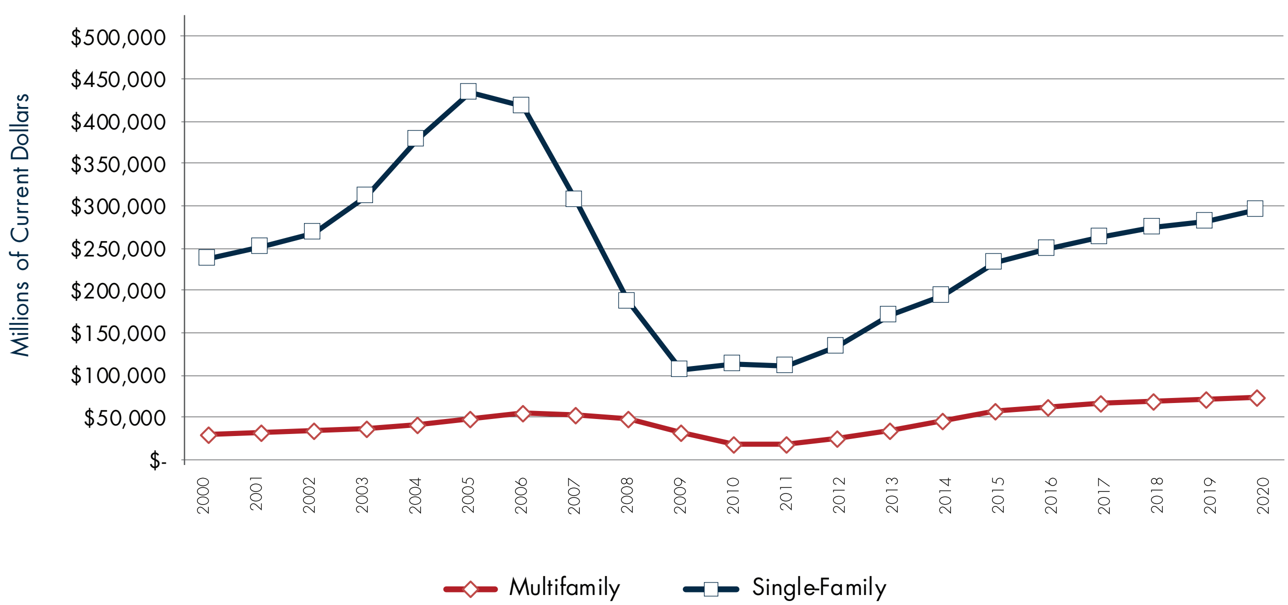
$263.9 Billion

MULTIFAMILY HOUSING

UP 7%

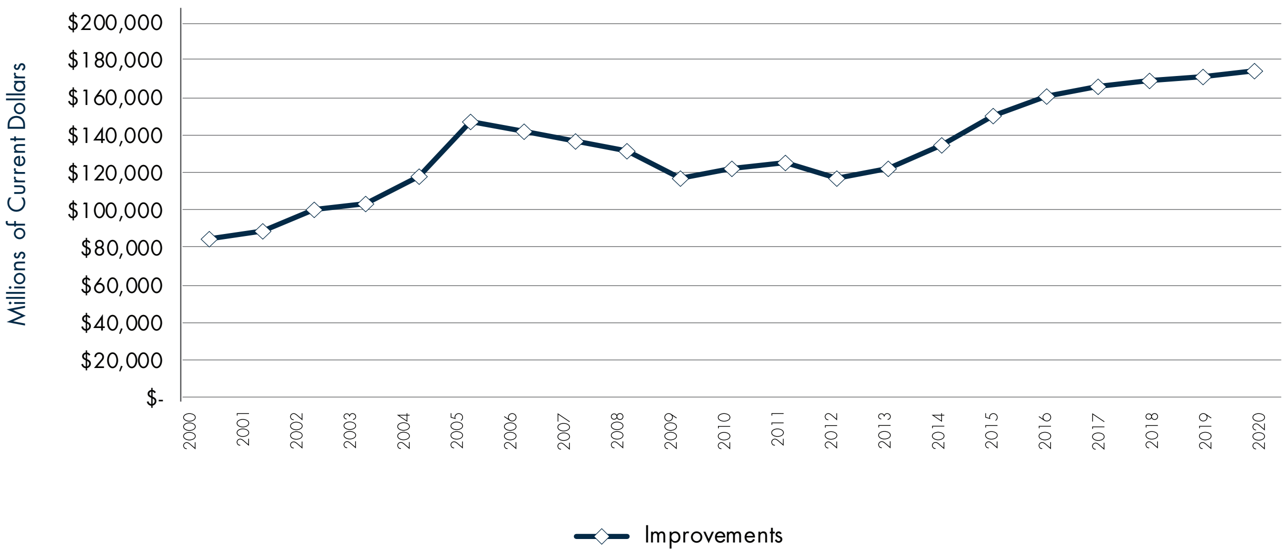
$67.0 Billion

RESIDENTIAL CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



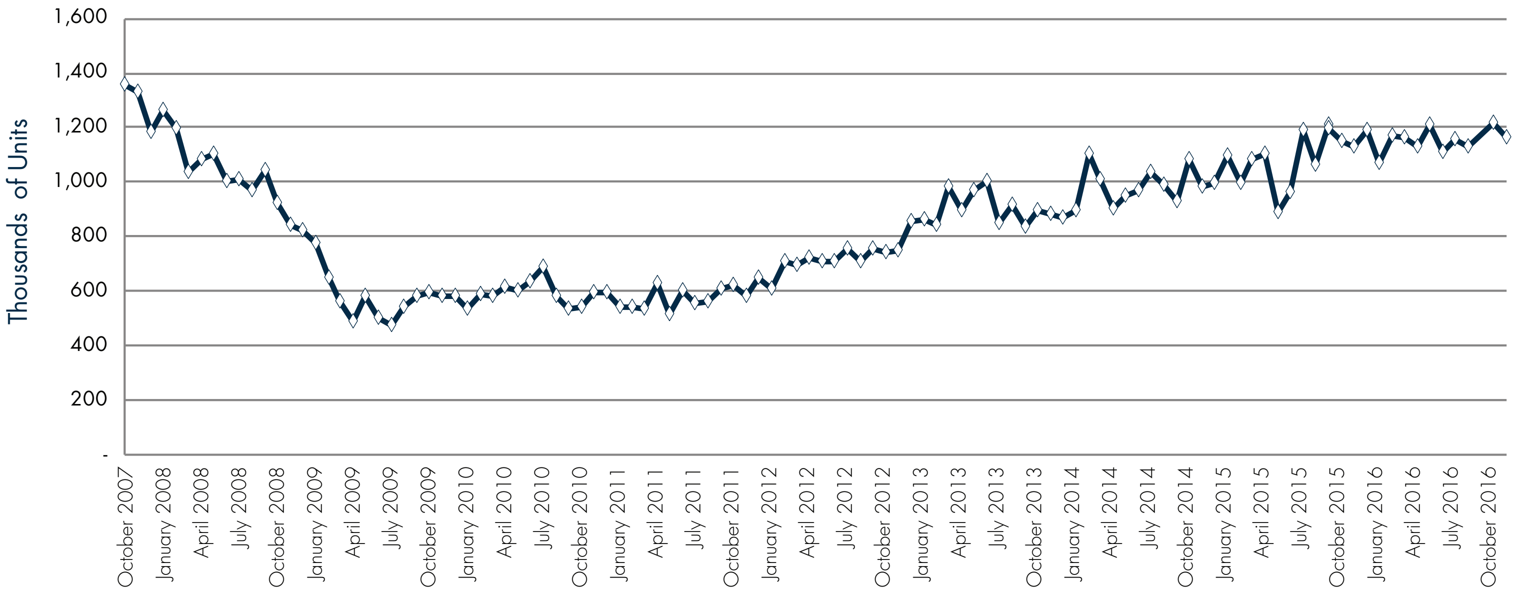
Source: FMI Research Services

RESIDENTIAL CONSTRUCTION IMPROVEMENTS PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

NEW PRIVATELY OWNED HOUSING UNITS STARTED
Seasonally Adjusted Annual Rate



Source: Federal Reserve Economic Data

TRENDS:

- According to the U.S. Census Bureau, "National vacancy rates in the third quarter 2016 were 6.8 percent for rental housing and 1.8 percent for homeowner housing. The rental vacancy rate of 6.8 percent was 0.5 percentage points (+/-0.4 percentage points) lower than the rate in the third quarter 2015 and not statistically different from the rate in the second quarter 2016. The homeowner vacancy rate of 1.8 percent was not statistically different from the third quarter 2015 or second quarter 2016 rates." (October 27, 2016)

- "The S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index, covering all nine U.S. census divisions, reported a 5.6% annual gain in October, up from 5.4% last month. The 10-City Composite posted a 4.3% annual increase, up from 4.2% the previous month. The 20-City Composite reported a year-over-year gain of 5.1%, up from 5.0% in September." (S&P Down Jones Indices, December 27, 2016)

- According to the U.S. Census Bureau, "Privately-owned housing starts in October were at a seasonally adjusted annual rate of 1,323,000. This is 25.5 percent (±12.6%) above the revised September estimate of 1,054,000 and is 23.3 percent (±14.4%) above the October 2015 rate of 1,073,000." (November 17, 2016)

DRIVERS:

- Unemployment rate
- Core CPI
- Income
- Mortgage rates
- Home prices
- Housing starts
- Housing permits

NONRESIDENTIAL CONSTRUCTION

Lodging

Although we expect 19% growth in 2016 compared with 30% in 2015, the pace of growth for lodging continues to be the highest among the construction categories we cover in this report. With an expected value of $25.9 billion for 2016, this market is well below its high of $35.8 billion in 2008. Gaining 9% in 2017, lodging construction will reach $28.2 billion. New supply of rooms is beginning to surpass absorption, thus putting downward pressure on revenue per room and occupancy rates. The industry is also facing some new competition in the market with the rise of startups like Airbnb.

UP 9%

$28.2 Billion

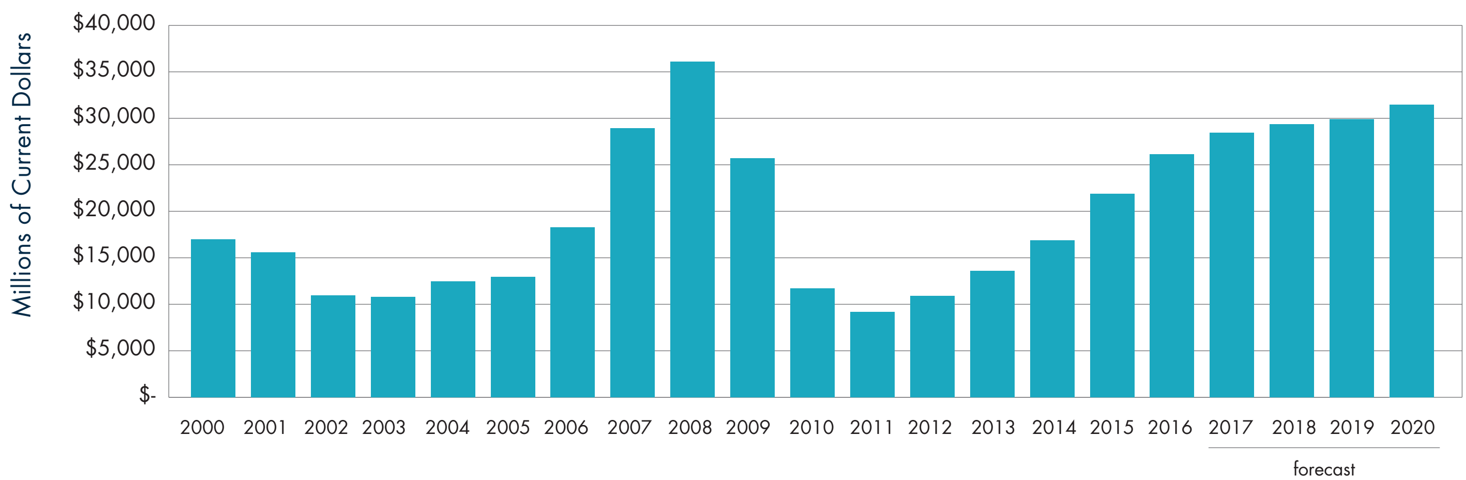
TRENDS:

- According to STR, "The U.S. hotel industry experienced a 4.5% occupancy increase to 65.8%, while ADR rose 4.6% to $122.02 and RevPAR increased 9.2% to $80.25 during the week of 13-19 November 2016." (Hotel News Now, November 23, 2016)
- STR's October 2016 Pipeline Report shows "549,142 rooms in 4,510 projects Under Contract in the United States. The total represents a 24.4% increase in the number of rooms Under Contract compared with September 2015." (Hospitality Net, October 12, 2016)
- Green building is more commonplace in remodels and retrofits.

DRIVERS:

- Occupancy rate
- RevPar
- Average daily rate
- Room starts

LODGING CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Office

Office construction will end 2016 with an expected 21% growth rate. Much of the growth has come from an increase in employment, especially in high-tech job markets. We expect the growth rate to drop to just 8% in 2017 and even lower, to around 2%, by 2020. The increased growth has begun to put pressure on absorption rates and rents. While many sectors that use office space have improved, they will likely hire fewer people and depend more on technology to handle higher workloads.

UP 8%
$72.3 Billion

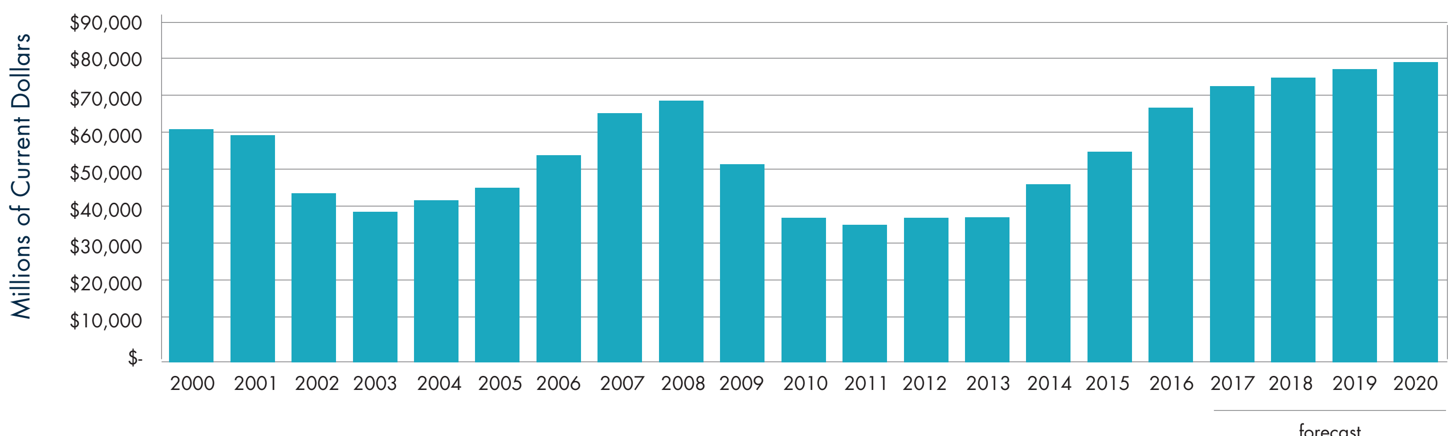
TRENDS:

- CBRE reports, "The overall vacancy rate was unchanged from the previous quarter at 13.0%. Downtown vacancy is projected to increase to 11.6% as new supply comes online in 2017 and 2018." (CBRE Q3 2016 U.S. Office Occupier View)
- Trends that will likely change the future of offices include office sharing, as more people work at home or on the road via the "cloud"; the younger generation is migrating toward active, vital metro areas; there is greater focus on security, especially in tall buildings.

DRIVERS:

- Office vacancy rate
- Unemployment rate

OFFICE CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Commercial

The solid growth rate of 8% for commercial construction in 2016 will slow to just 6% in 2017 and drop to around 3% by 2020. The expected slowdown in commercial construction is due more to a change in consumer buying habits than overall spending, which continues to edge higher. The continuing trend to shop online from a smartphone is hurting traditional big-box stores the most. For instance, after the year ended, Sears announced it will close more than 30 Sears and Kmart stores in early 2017. The move from traditional shopping venues will likely result in a merging of online and brick-and-mortar shopping with brick and mortar becoming more of a destination or event-related atmosphere. Some of the fastest-growing areas in commercial retail construction have been drinking places and food services; however, building materials and garden supply stores are currently experiencing the highest growth rate.

UP 6%

$76.9 Billion

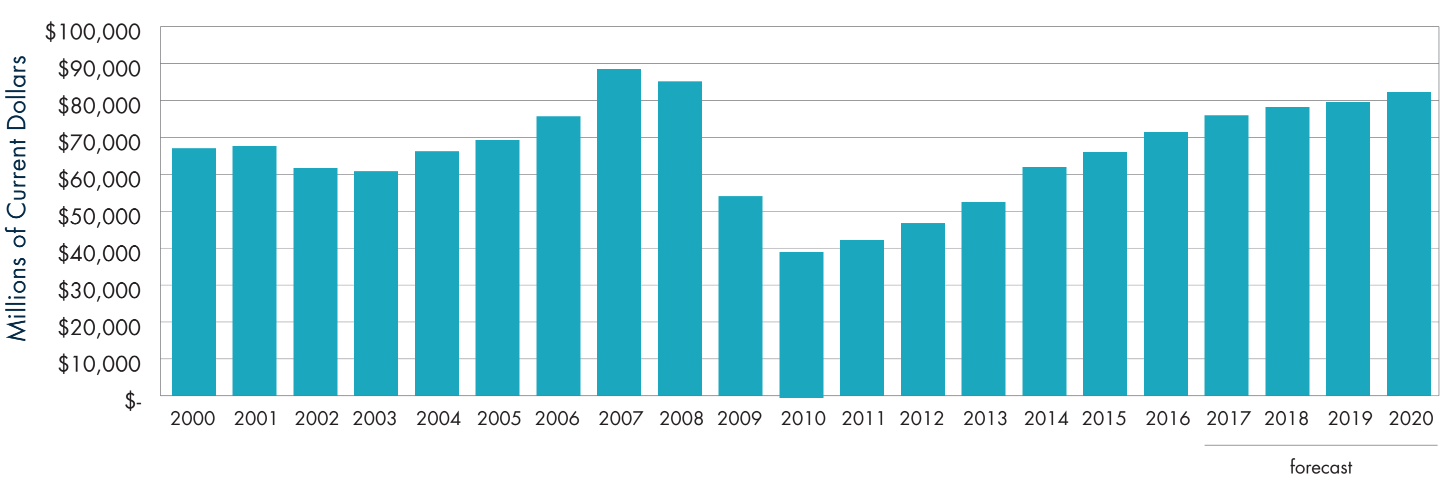
TRENDS:

- The Department of Commerce reports, "Retail trade sales were virtually unchanged (±0.5%)* from October 2016, and up 3.6 percent (±0.7%) from last year. Nonstore retailers were up 11.9 percent (±1.6%) from November 2015, while health and personal care stores retailers were up 6.2 percent (±2.5%) from last year." (U.S. Department of Commerce, December 14, 2016)
- The Conference Board Consumer Confidence Index, reached 113.7 (1985=100) in November. "Consumer Confidence improved further in December, due solely to increasing Expectations which hit a 13-year high (Dec. 2003, 107.4)," said Lynn Franco, director of economic indicators at The Conference Board. "The post-election surge in optimism for the economy, jobs and income prospects, as well as for stock prices which reached a 13-year high, was most pronounced among older consumers." (The Conference Board, December 27, 2016)
- The Internet of Things (IoT) will be increasingly disruptive for commercial business, presenting both opportunities for new businesses and threats to traditional brick-and-mortar markets.

DRIVERS:

- ↑ Retail sales
- ↑ CPI
- ↑ Income
- ↑ Home prices
- ↑ Housing starts
- ↓ Housing permits

COMMERCIAL CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Health Care

Health care construction is making a slow but steady recovery. FMI is forecasting $41.4 billion in construction put in place for 2016 and 4% growth in 2017. Traditional large hospital projects are returning to the drawing boards with fewer large hospital projects in the works. The bulk of the work will be renovation and additions as well as outpatient care. New facility designs are upping the game for a patient-centered environment as well as reducing concerns for the spread of supergerms. Construction will continue to become more collaborative and integrated with the various communities involved. The prospect of changing government health care policy and challenges of updating to the latest technologies and security measures will be top challenges in the year ahead.

UP 4%
$43.0 Billion

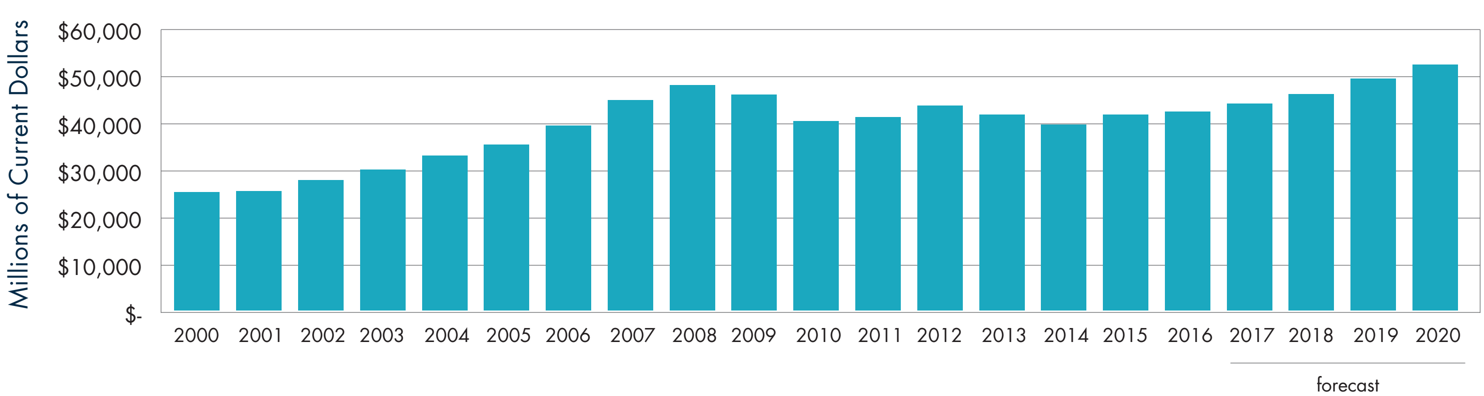
TRENDS:

- The Bureau of Labor Statistics reports, "Employment of registered nurses is projected to grow 16 percent from 2014 to 2024, much faster than the average for all occupations."
- Veterans Administration hospitals rocked by poor management and patient care, old facilities and huge construction cost overruns.
- Health Facilities Management magazine says, the "industry is moving away from large-scale new construction, according to survey results. While 70 percent of respondents said they have projects currently under construction or planned in the next three years, a full three-fourths of those were expansions or renovations." (2016 Hospital Construction Survey, Health Facilities Management)
- The new model for hospitals is the medical center with a cluster of offices, including beds, which will deliver more of a patient's needs.
- The number of outpatient facilities will continue to grow, pressed by the need to lower health care costs and to improve health facility profits.

DRIVERS:

- Population change younger than age 18
- Population change ages 18-24
- Stock market
- Government spending
- Nonresidential structure investment

HEALTH CARE CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Education

FMI forecasts education construction put in place for 2016 to end up around 6% higher than 2015 to $88.3 billion. Growth for 2017 is expected to be 7% for a total of $94.3 billion by year-end. Growth will be driven by population expansion and the increasing need to bring schools into compliance for safety and the health of the student populations. Higher education will either embrace distance learning or continue to compete with it, similar to retail stores versus online shopping.

UP 7%
$94.3 Billion

Schools increasingly need to have security measures in place due to increasing threats of terrorism and deranged people entering schools with weapons. There also need to be funding solutions to improve the deplorable conditions in inner-city schools in depressed areas like Detroit. To prepare students for future careers, all schools should include modern technology or be renovated and updated for modern computing and collaborative environments.

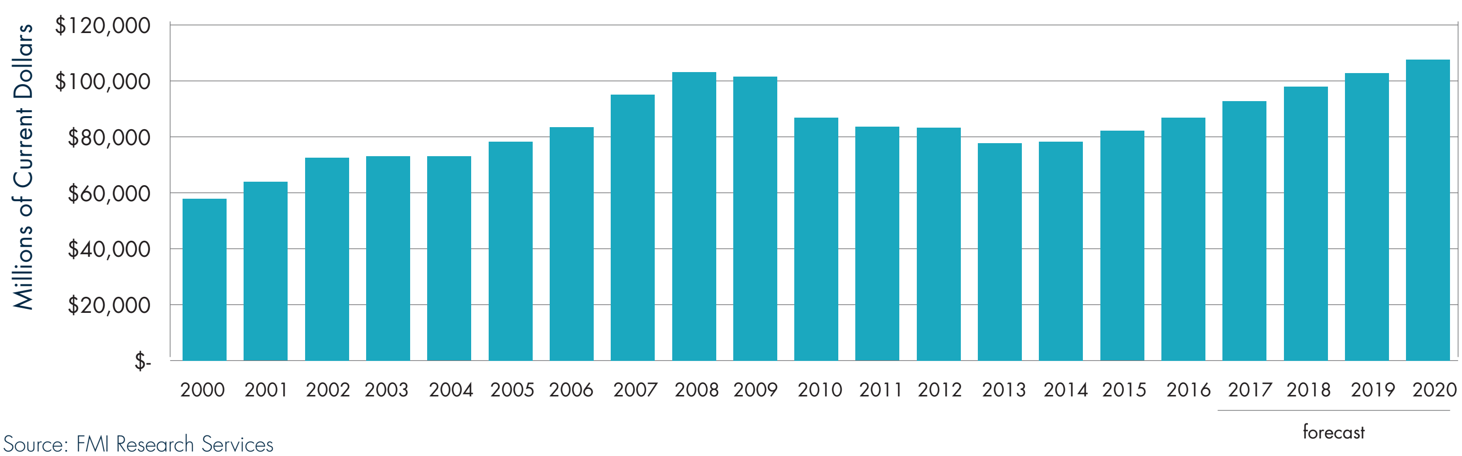
TRENDS:

- Significantly less funding from federal government and states for K-12 schools.
- Enrollment growth 2.5 million in the next four years.
- New designs for schools will be more flexible for changing classrooms and greater use of natural light. Expect more use of modular building designs.
- Greater attention to energy reduction and green building technologies.
- Renovation and additions to current school buildings will continue to grow in comparison to new school projects.
- Greater focus on safe schools, as the threat for shootings on campus continues to rise.

DRIVERS:

- Population change younger than age 18
- Population change ages 18-24
- Stock market
- Government spending
- Nonresidential structure investment

EDUCATION CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Religious

We expect the growth rate for religious buildings to drop 3% for 2016 and gain back just 2% in 2017 to reach $3.6 billion. With more people working, there is more money available to support religious building, in some cases involving larger building projects. Nonetheless, we expect slow growth will return to this sector. Future uncertainty for growth is due to many changes in the religious landscape, including the mix of religious faiths in America and fewer people who consider themselves regular churchgoers, even if they still belong to a certain faith. Many new churches are small and established in existing buildings like those found in vacated shopping centers.

UP 2%
$3.6 Billion

TRENDS:

- The lending environment continues to be a challenge for many congregations.
- Establishing a capital campaign is becoming increasingly common.
- Many churches are seeing tremendous declines in contributions and tithes.

DRIVERS:

- ↑ GDP
- ↑ Population
- ↑ Income
- ↓ Personal savings rate

RELIGIOUS CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016

Source: FMI Research Services

Public Safety

Spending for public safety construction declined 5% in 2016 to $8.3 billion; however, we are forecasting a gain of 3% for 2017 to $8.6 billion. The private prison sector took a serious blow when the federal government recently announced the results of a long investigation that showed: "Private prisons 'simply do not provide the same level of correctional services, programs and resources; they do not save substantially on costs; and as noted in a recent report by the Department's Office of Inspector General, they do not maintain the same level of safety and security,'" per Deputy Attorney General Sally Yates. (CNN Money, August 18, 2016)

UP 3%
$8.6 Billion

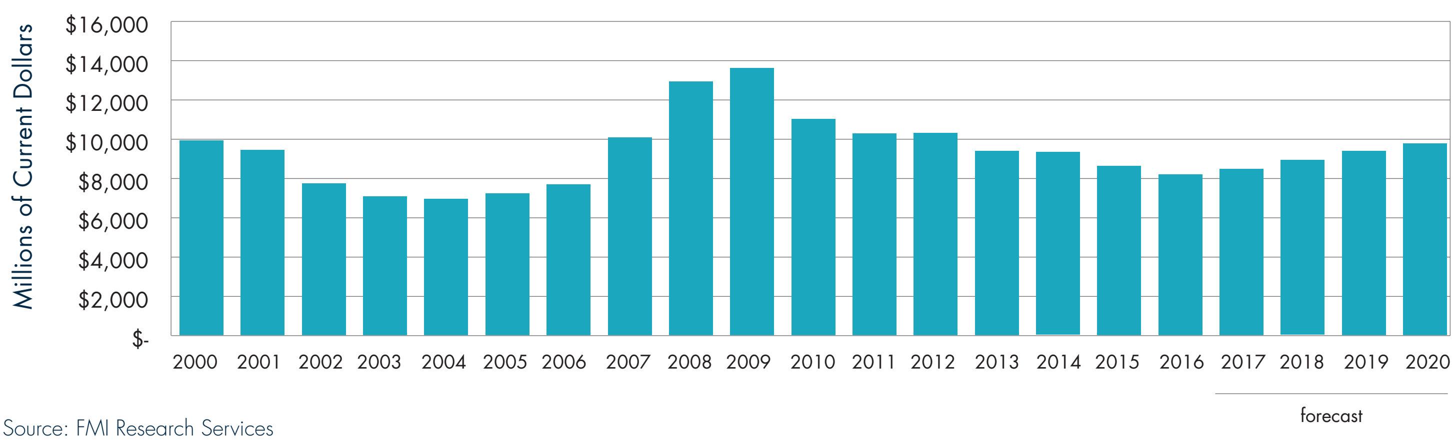
TRENDS:

- "Six states (Hawaii, Mississippi, Montana, New Mexico, North Dakota and Oklahoma) housed at least 20% of their prison population in privately operated facilities at year-end 2015. Almost 7% of state prisoners (91,300 inmates) and 18% of federal prisoners (34,900) were held in private prison facilities in 2015. An additional 6% of state prisoners (80,400 inmates) were in the custody of local jails at year-end 2015." (Bureau of Justice Statistics, Prisoners in 2015, December 2016)
- The recent announcement by the Deputy Attorney General will only affect 5% of privately housed prisoners among the "195,000 inmates in federal prisons." However, it will likely set a trend for states to review their own prison systems and privatization agreements. (Ibid.)

DRIVERS:

- Population
- Government spending
- Incarceration rate
- Nonresidential structure investment

PUBLIC SAFETY CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Amusement and Recreation

For amusement and recreation construction, 2016 has shown strong growth at 9%, but much less than 2015's rate of 19%. For 2017, we expect growth to continue at a solid rate of 7%. There are several large stadium projects underway and planned to open in 2017. Sports venues are promoted as job creators with the ability to revitalize many dilapidated areas around a city. The market for amusement and recreation will continue to grow as large professional teams try to keep up with the Joneses. With the addition of domes and retracting roofs as well as bars, restaurants, shopping, luxury boxes and on and on, sports venues are creating the model for a future of climate-controlled cities.

UP 7%
$23.1 Billion

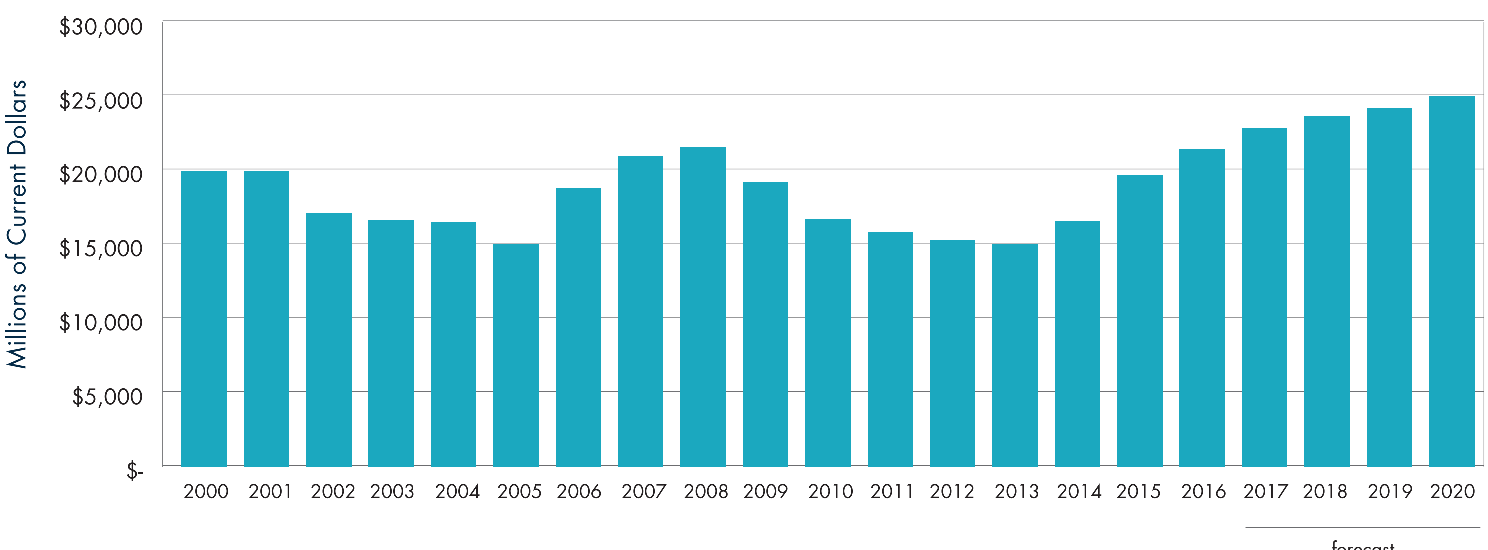
TRENDS:

- The Rams return to Los Angeles will mean a new home for the team. The recently announced 70,000-seat stadium for the Los Angeles Rams will be a mixed-use project in Inglewood, California. (prnewswire.com, July 14, 2016) The new stadium is set to open in 2019.
- The new stadium for the San Diego Chargers was turned down, so now the team is moving to Los Angeles. San Diego State will use the old Chargers stadium.
- Ohio Stadium is planning a $42 million renovation project.
- A dedicated soccer stadium is being built in Orlando for the Orlando City Soccer Club expansion franchise. The opening is planned for the 2016 season.
- The $1.4 billion Mercedes-Benz stadium will host the Atlanta Falcons and the Atlanta United FC in 2017. The stadium will have a retractable roof.
- Competition in the gaming sector will draw business away from some existing gambling centers, such as Atlantic City and Las Vegas, as well as from other public arenas.

DRIVERS:

- Income
- Personal savings
- Unemployment rate

AMUSEMENT AND RECREATION CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Transportation

Transportation construction growth slowed -1% in 2016. The boom in petrochemical manufacturing plants, particularly in the Gulf Coast region, will take advantage of the completed Panama Canal expansion and boost transportation infrastructure in both the South and West to accommodate increased activity from Panamax vessels. The passing of the FAST Act was seen as a welcome event for needed transportation infrastructure construction; however, there are still many questions surrounding funding of the Act and new regulations. The transportation sector will face some uncertainty as the incoming administration has pledged to increase investment in infrastructure. The details of that pledge are as yet uncertain.

UP 4%

$46.9 Billion

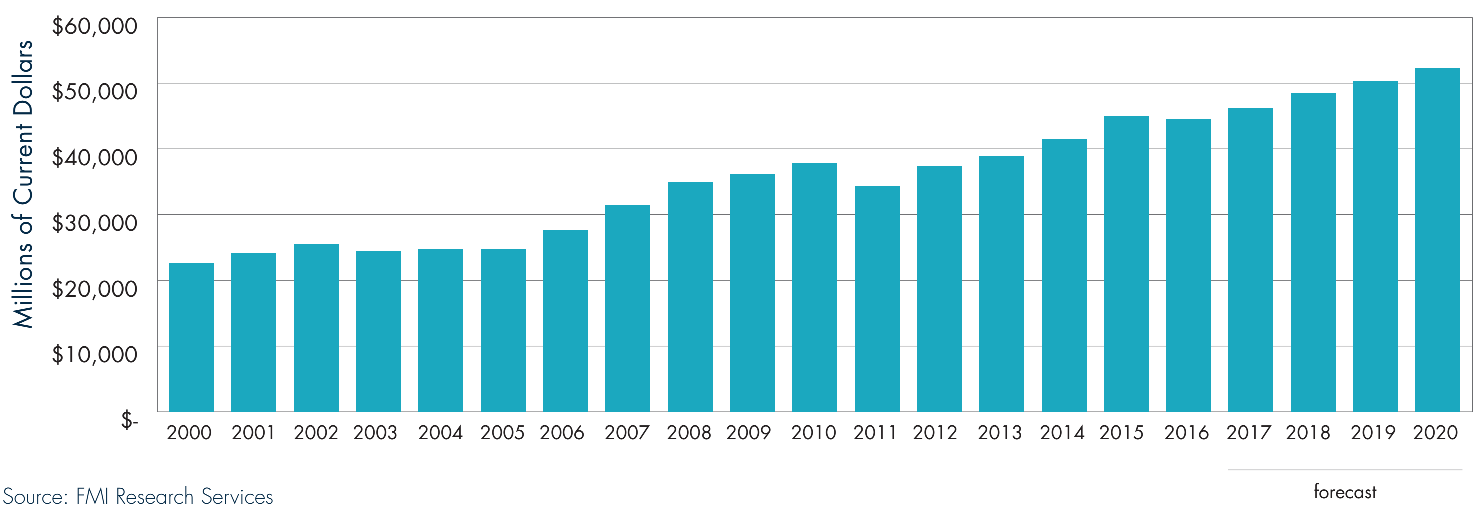
TRENDS:

- According to the Association of American Railroads (AAR) report for December 28, 2016, "Total carloads for the week ending December 24 were 243,917 carloads, up 17.9 percent compared with the same week in 2015, while U.S. weekly intermodal volume was 252,716 containers and trailers, up 37.2 percent compared to 2015."
- The 2016-2036 FAA forecast calls for "U.S. carrier passenger growth over the next 20 years to average 2.1 percent per year, slightly faster than last year's forecast. The sharp decline in the price of oil in 2015 is a catalyst for a short-lived uptick in passenger growth in 2016." (FAA Aerospace Forecast Fiscal Years 2016-2036)
- Congress passed the Water Infrastructure Improvements Act for the Nation, or WIIN Act, which includes the Water Resources Development Act (WRDA) of 2016. The WIIN Act "is comprehensive legislation to address the needs of America's harbors, locks, dams, flood protection and other water resources infrastructure critical to the Nation's economic growth, health, and competitiveness."

DRIVERS:

- Population
- Government spending
- Transportation funding

TRANSPORTATION CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Communication

Communication construction put in place dropped 2% in 2016, but is expected to recover to 5% in 2017 to reach $21.2 billion.

The trend for communications is likely to be more integration and mergers in order to capture market share. The current trend is for building more data centers and beefing up security and privacy against potential interlopers and severe weather events. The increasing need for data storage is not driven just by corporate and government use. The trend continues to merge telecommunications for entertainment and data that will be offered by a few competing service providers. Add to this the growing Internet of Things (IoT) that will connect smartphones and computers to anything that has a chip and the ability to connect to the internet, such as automobiles, manufacturing equipment, personal monitoring devices and kitchen appliances.

UP 5%

$21.2 Billion

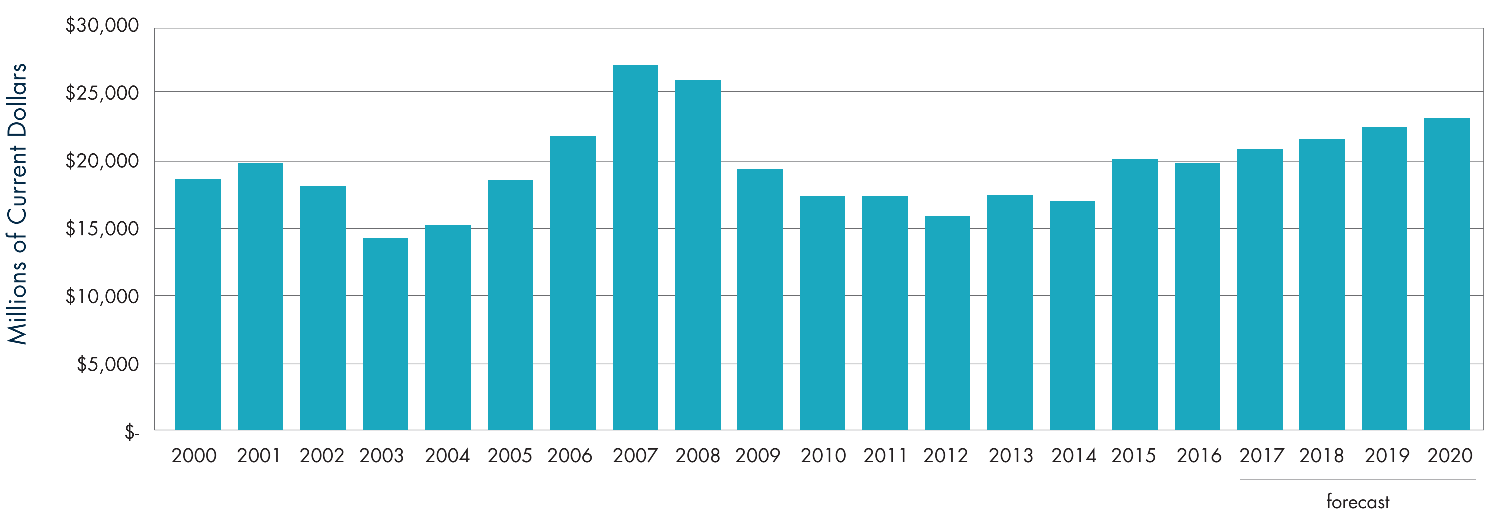
TRENDS:

- Communications infrastructure will continue to be challenged with keeping up with the technology as 4G moves to 5G and 4K video is already moving to 5K, pushing bandwidth and storage capacity.
- "Mini towers" for increasing coverage and spectrum will proliferate rapidly in the next five years.
- Growth activity for Google's Google Fiber arm has been "paused," and layoffs are underway as Google reconsiders its plans for deploying high-speed gigabit connections in selected metro areas. Google is currently looking at more wireless solutions.
- Data security is critical for large businesses and governments in the face of potential disasters and threats from hackers and foreign enemies, recently made more public by some high-profile hacks, including a billion Yahoo accounts during the elections.

DRIVERS:

- Innovation/technology
- Global mobility
- Population
- Security/regulatory standards
- Private investment

COMMUNICATION CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Manufacturing

After a busy 2015, manufacturing construction fell 3% in 2016. We expect growth to return to 8% in 2017 to reach nearly $82 billion in construction put in place. This forecast could change depending on the plans of the next Congress and the new president.

Currently, at just 74.8 for November 2016, manufacturing capacity utilization has not outpaced added capacity. Increasing energy prices may spur some capacity additions in the oil and gas sector, but price increases haven't been that stable at this point. The completion of the Panama Canal expansion project is expected to decrease costs and increase shipments from Gulf Coast ports between the U.S. and Asia.

UP 8%
$81.9 Billion

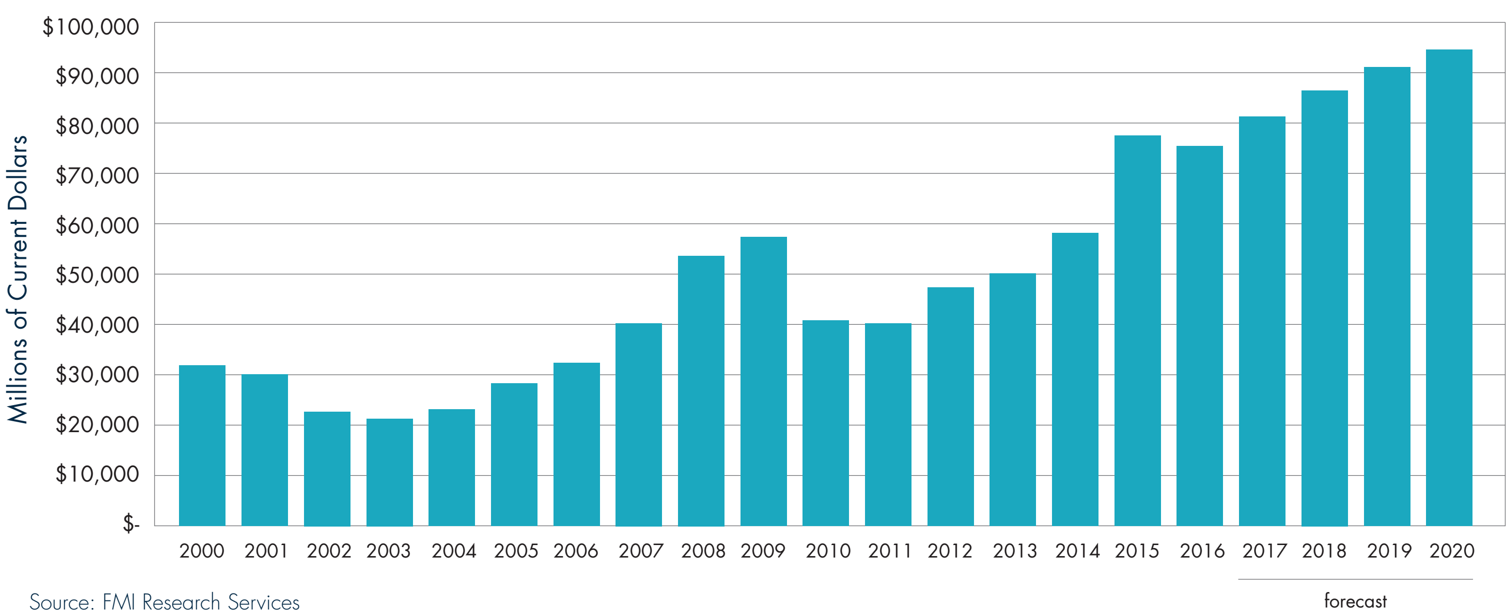
TRENDS:

- With little change since last quarter, manufacturing capacity utilization rates are at 74.8 of capacity in November 2016, which is well below the historical average of 78.5 (1972-2015).
- The U.S. Department of Commerce reports, "Shipments of manufactured durable goods in November, up two of the last three months, increased $0.2 billion or 0.1 percent to $234.2 billion. This followed a 0.1 percent October decrease." (December 22, 2016)
- "New orders for manufactured durable goods in November decreased $11.0 billion or 4.6 percent to $228.2 billion, the U.S. Census Bureau announced today. This decrease, down following four consecutive monthly increases, followed a 4.8 percent October increase. Excluding transportation, new orders increased 0.5 percent. Excluding defense, new orders decreased 6.6 percent." (U.S. Census Bureau, December 22, 2016)
- "The November PMI registered 53.2 percent, an increase of 1.3 percentage points from the October reading of 51.9 percent. The New Orders Index registered 53 percent, an increase of 0.9 percentage point from the October reading of 52.1 percent" according to The Manufacturing ISM® Report On Business®.

DRIVERS:

- ↑ PMI
- ↓ Industrial production
- ↓ Capacity utilization
- ↑ Durable goods orders
- ↑ Manufacturing inventories

MANUFACTURING CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

NONBUILDING STRUCTURES

Power

Construction for power-generating facilities grew 6% in 2016 to reach $92.0 billion for construction put in place. We expect another 8% growth in 2017. New electrical capacity has been largely generated by solar and wind facilities from large facilities to rooftops in your local shopping mall. Traditional power plants must be updated to keep up with changing requirements as well as to manage distributed generation sources. Most expect the new administration to approve the Keystone XL pipeline, which could increase construction by year's end. The power industry will continue to consolidate as the average consumer reduces power use, but growth will be slow but steady in 2017 through our 2020 forecast horizon.

UP 8%
$99.6 Billion

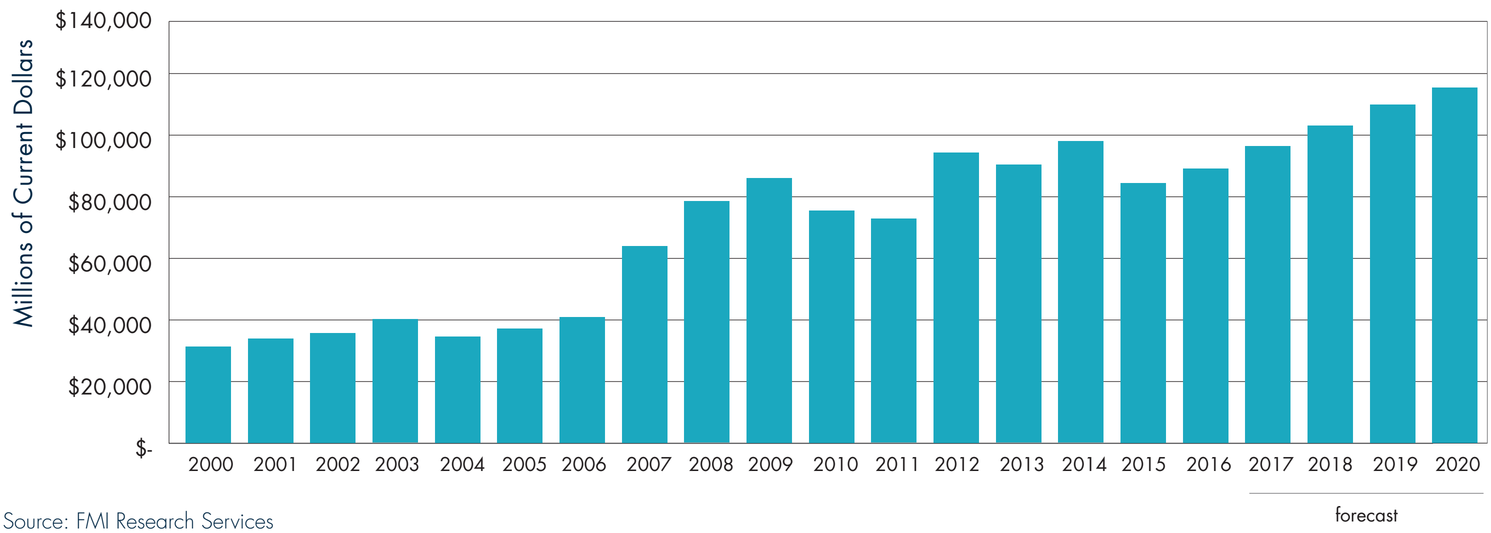
TRENDS:

- Power companies are placing greater emphasis on flexibility to respond to peak needs alongside hydropower, solar and wind-generating facilities.
- "The U.S.' large solar power generation capacity in operation rose by 4,960 MW in January-October 2016 across 289 projects, and wind farms added 2,972 MW."
- Large-scale solar additions in the period more than tripled from 1,698 MW in the same 10 months of 2015, according to a report by the Federal Energy Regulatory Commission (FERC)." (https://renewables.seenews.com/news/us-adds-7-9-gw-of-large-solar-wind-in-10-mo-2015-549645[12/7/2016 3:37:51 PM])

DRIVERS:

- Industrial production
- Population
- Nonresidential structure investment

POWER CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Highway and Street

Highway and street construction increased just 2% in 2016 to $91.6 billion. FMI forecasts 3% growth for 2016 and another 4% in 2017. The Fixing America's Surface Transportation (FAST) Act for highway and transportation funding removed some uncertainty for highway funding; however, we do not expect a significant jump in spending over current levels. The new president has vowed to increase infrastructure spending, although the details are uncertain at this time. Much of the new spending is expected to come from public-private partnerships or some variation on that approach.

UP 3%
$94.1 Billion

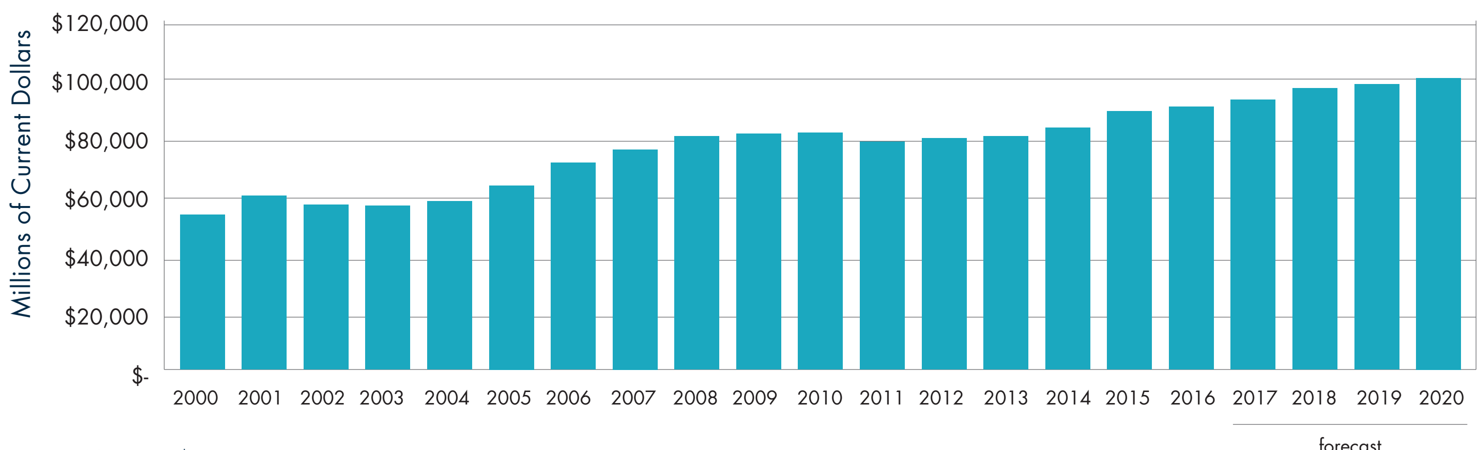
TRENDS:

- ARTBA reports, "Recent increases in state gas taxes and user fees as well as a number of local funding initiatives approved on the Nov. 8, 2016, ballot should help support some local markets over the next few years. Voters in 24 states approved 267 ballot measures in 2016, which will support $207 billion in highway, bridge, port and transit spending over the next 40 years." (ARTBA 2017 Forecast: Modest Growth in Transportation Construction Market)
- The Trump campaign pledged to spend $1,000,000,000 on infrastructure, spread out over 10 years. While there is a lot of bipartisan agreement that the country needs to invest in infrastructure, the financing question remains unsolved.

DRIVERS:

- Population
- Government spending
- Nonresidential structure investment

HIGHWAY AND STREET CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Sewage and Waste Disposal

Construction put in place for sewage and waste disposal construction dropped 8% in 2016. FMI forecast calls for a gain of 2% in 2017. A significant percentage of the work to replace or build new metropolitan sewage and waste disposal is being done under court-ordered consent decrees. The EPA, in its recent "EPA National Enforcement Initiative: Keeping Raw Sewage and Contaminated Stormwater Out of Our Nation's Waters" report (March 2016) lists 38 cases going back to the earliest in 1978 up to today. The total "Estimated Cost to Bring CSS (SSS) into Compliance" is $31,079,834,799, averaging $839,995,535 per case. That figure does not include the costs to the EPA and municipal defendants for legal fees or fines, nor does it include cost overruns to complete the projects. Only four of the cases have met final obligations, and about a dozen won't be completed for more than a decade.

UP 2%

$23.4 Billion

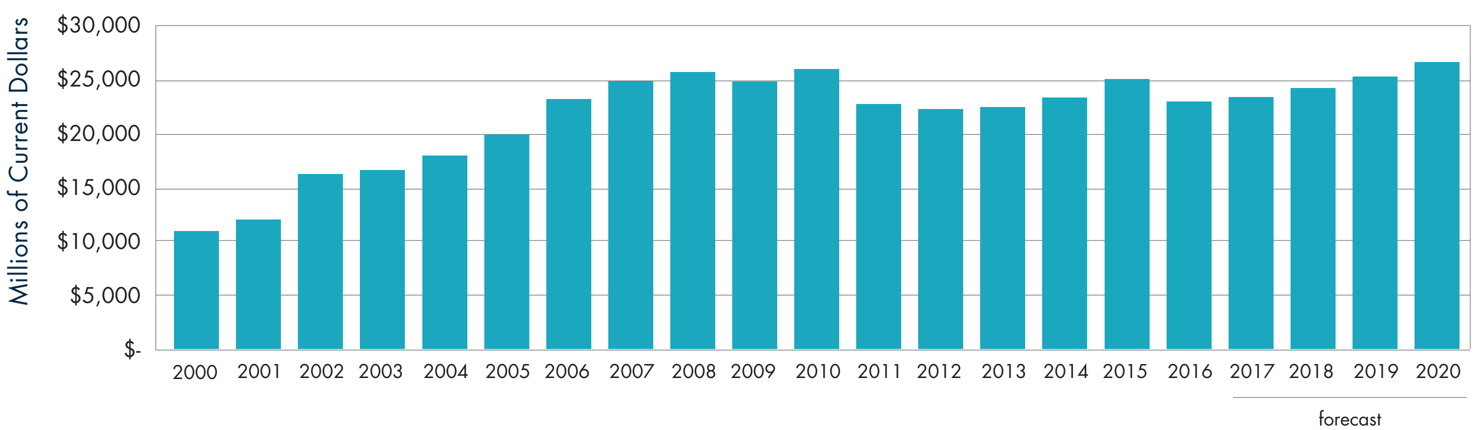
TRENDS:

- Growth, driven by aging infrastructure and regulation, is on the horizon, but the length of the horizon is still unknown. Slow water infrastructure markets in the aftermath of the recession continue to build the backlog of necessary work as existing infrastructure ages.
- In need of replacement and upgrades, the 16,000 wastewater systems nationwide discharge more than 850 billion gallons of untreated sewage into surface waters each year.
- Combined sewer systems (stormwater and sewage) serve roughly 950 communities with about 40 million people. Most communities with CSOs are located in the Northeast and Great Lakes.

DRIVERS:

- Population
- Industrial production
- Government spending

SEWAGE AND WASTE DISPOSAL CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Water Supply

Water supply construction lost 6% in 2016. However, growth of 2% is expected in 2017. In some regions of the nation, specifically California, water is the new oil. Like oil, one of the concerns for water besides scarcity is storage and conveyance to the right place according to need. More people will be asked to pay more for water as water becomes a scarcer commodity, considering increased population, agricultural and industrial needs. Whether one believes in global climate change or not, states will need to be strategic and proactive in both freshwater needs and sewage disposal and recycling.

UP 2%
$13.0 Billion

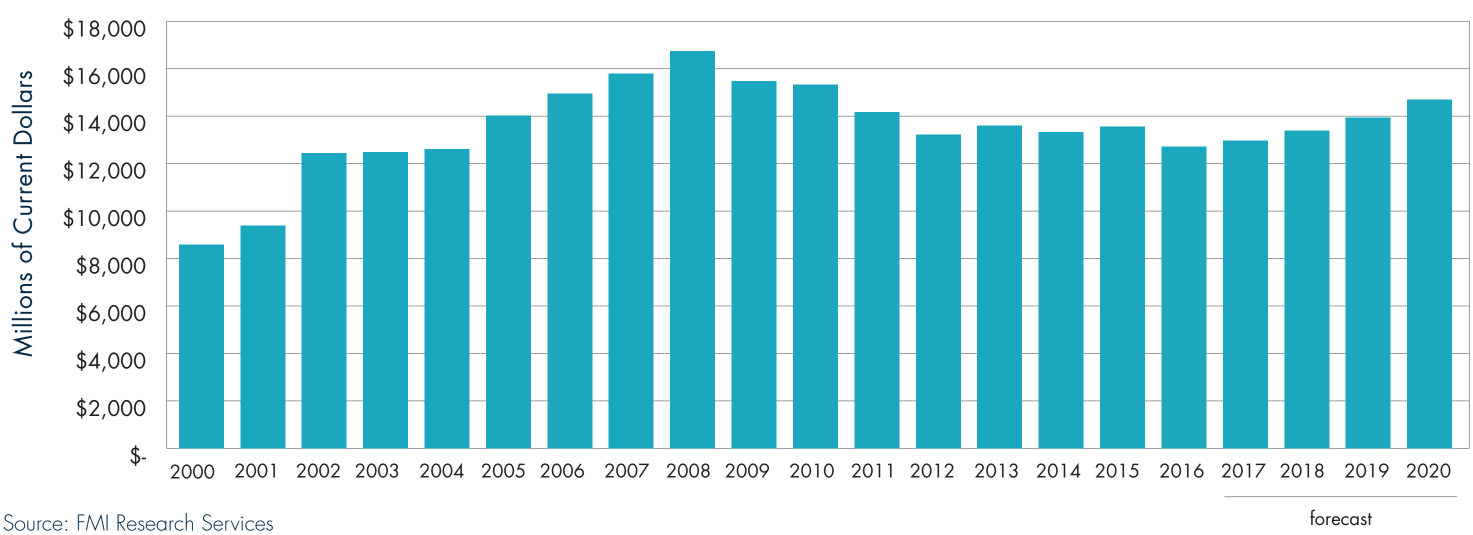
TRENDS:

- According to a GAO report, "after irrigation, energy production was the second-greatest concern of state water managers in terms of affecting water available for other uses." ("Fresh Water," GAO, May 2014) While new fracking operations have slowed due to low oil prices, water use will continue to be of concern, especially since much fracking work occurs in areas with lower water supplies.
- "About 23 percent of U.S. water utilities are unsure if they have lead service lines, according to a survey by the engineering consultant Black & Veatch. One in 10 utilities is aware it has lead pipes, the survey found, but has no plans to replace them. Five percent have plans to partially replace lead pipes." (E&E Publishing, July 7, 2016)

DRIVERS:

- Population (up)
- Industrial production (down)
- Government spending (up)

WATER SUPPLY CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

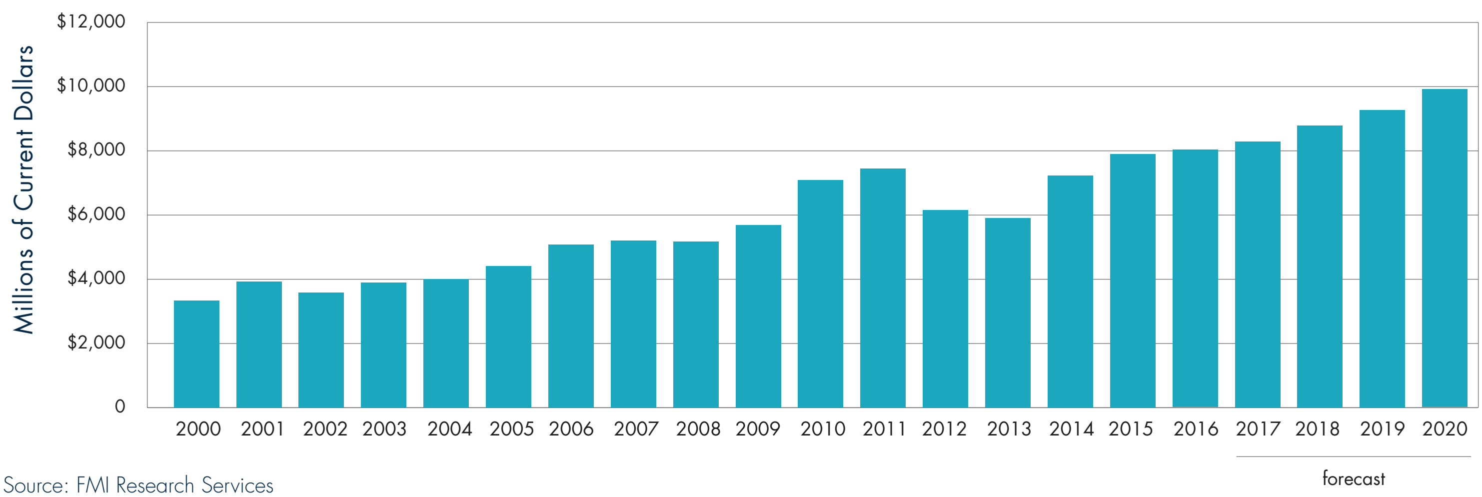
Conservation and Development

Conservation and development construction grew 2% in 2016. We expect an increase of 3% in 2017 to reach $8.4 billion. The future of federal spending for conservation and development is insecure as the new administration appoints an interior secretary who is pro oil drilling on public lands and privatization of public park land.

UP 3%
$8.4 Billion

DRIVERS:
- Population
- Government spending

CONSERVATION AND DEVELOPMENT CONSTRUCTION PUT IN PLACE
Forecast as of Q4 2016



Source: FMI Research Services

Construction Put in Place
Estimated for the United States

Millions of Current Dollars
4th Quarter 2016 Forecast (Based on Q3 2016 Actuals)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RESIDENTIAL BUILDINGS										
Single-family	109,984	133,668	171,837	194,091	233,049	248,743	263,868	273,624	281,590	294,568
Multifamily	17,821	25,758	35,169	46,250	57,533	62,865	67,027	69,573	70,660	72,900
Improvements*	124,842	116,631	122,210	134,519	149,673	160,478	165,791	169,238	171,179	173,857
Total Residential Buildings	**252,646**	**276,057**	**329,217**	**374,860**	**440,255**	**472,086**	**496,686**	**512,436**	**523,429**	**541,325**
NONRESIDENTIAL BUILDINGS										
Lodging	9,129	10,836	13,484	16,738	21,728	25,912	28,214	29,124	29,683	31,234
Office	36,011	37,800	37,979	46,582	55,188	66,700	72,329	74,636	76,766	78,645
Commercial	42,816	47,335	53,159	62,841	66,924	72,386	76,974	79,307	80,631	83,321
Health Care	40,204	42,544	40,689	38,647	40,734	41,365	43,014	44,955	48,244	51,146
Education	84,985	84,672	79,060	79,681	83,517	88,276	94,317	99,609	104,508	109,396
Religious	4,239	3,846	3,590	3,386	3,667	3,555	3,627	3,724	3,797	3,863
Public Safety	10,407	10,431	9,506	9,437	8,729	8,297	8,582	9,027	9,503	9,897
Amusement and Recreation	15,995	15,480	15,207	16,773	19,878	21,670	23,112	23,916	24,451	25,304
Transportation	34,737	37,862	39,459	42,043	45,566	45,128	46,869	49,153	50,977	52,932
Communication	17,685	16,165	17,783	17,298	20,507	20,163	21,242	21,999	22,918	23,615
Manufacturing	40,559	47,741	50,548	58,648	78,178	76,070	81,958	87,221	91,875	95,386
Total Nonresidential Buildings	**336,767**	**354,712**	**360,464**	**392,074**	**444,616**	**469,523**	**500,237**	**522,670**	**543,352**	**564,740**
NONBUILDING STRUCTURES										
Power	75,185	97,434	93,317	101,216	87,167	92,021	99,619	106,440	113,587	119,305
Highway and Street	79,322	80,546	81,364	84,220	90,068	91,579	94,082	97,998	99,478	101,748
Sewage and Waste Disposal	22,710	22,261	22,425	23,321	25,064	22,974	23,374	24,198	25,263	26,635
Water Supply	14,163	13,218	13,597	13,334	13,563	12,708	12,975	13,383	13,946	14,703
Conservation and Development	7,538	6,228	5,967	7,310	7,985	8,125	8,382	8,885	9,377	10,033
Total Nonbuilding Structures	**198,918**	**219,687**	**216,670**	**229,401**	**223,847**	**227,407**	**238,432**	**250,904**	**261,651**	**272,425**
Total Put in Place	**788,331**	**850,456**	**906,351**	**996,335**	**1,108,718**	**1,169,016**	**1,235,355**	**1,286,010**	**1,328,432**	**1,378,490**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

Construction Put in Place
Estimated for the United States

Change From Prior Year - Current Dollar Basis
4th Quarter 2016 Forecast (Based on Q3 2016 Actuals)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RESIDENTIAL BUILDINGS										
Single-family	-3%	22%	29%	13%	20%	7%	6%	4%	3%	5%
Multifamily	2%	45%	37%	32%	24%	9%	7%	4%	2%	3%
Improvements*	5%	-7%	5%	10%	11%	7%	3%	2%	1%	2%
Total Residential Buildings	**1%**	**9%**	**19%**	**14%**	**17%**	**7%**	**5%**	**3%**	**2%**	**3%**
NONRESIDENTIAL BUILDINGS										
Lodging	-22%	19%	24%	24%	30%	19%	9%	3%	2%	5%
Office	-5%	5%	0%	23%	18%	21%	8%	3%	3%	2%
Commercial	7%	11%	12%	18%	6%	8%	6%	3%	2%	3%
Health Care	2%	6%	-4%	-5%	5%	2%	4%	5%	7%	6%
Education	-4%	0%	-7%	1%	5%	6%	7%	6%	5%	5%
Religious	-20%	-9%	-7%	-6%	8%	-3%	2%	3%	2%	2%
Public Safety	-7%	0%	-9%	-1%	-8%	-5%	3%	5%	5%	4%
Amusement and Recreation	-6%	-3%	-2%	10%	19%	9%	7%	3%	2%	3%
Transportation	-9%	9%	4%	7%	8%	-1%	4%	5%	4%	4%
Communication	0%	-9%	10%	-3%	19%	-2%	5%	4%	4%	3%
Manufacturing	-2%	18%	6%	16%	33%	-3%	8%	6%	5%	4%
Total Nonresidential Buildings	**-3%**	**5%**	**2%**	**9%**	**13%**	**6%**	**7%**	**4%**	**4%**	**4%**
NONBUILDING STRUCTURES										
Power	-4%	30%	-4%	8%	-14%	6%	8%	7%	7%	5%
Highway and Street	-4%	2%	1%	4%	7%	2%	3%	4%	2%	2%
Sewage and Waste Disposal	-13%	-2%	1%	4%	7%	-8%	2%	4%	4%	5%
Water Supply	-8%	-7%	3%	-2%	2%	-6%	2%	3%	4%	5%
Conservation and Development	5%	-17%	-4%	23%	9%	2%	3%	6%	6%	7%
Total Nonbuilding Structures	**-5%**	**10%**	**-1%**	**6%**	**-2%**	**2%**	**5%**	**5%**	**4%**	**4%**
Total Put in Place	**-2%**	**8%**	**7%**	**10%**	**11%**	**5%**	**6%**	**4%**	**3%**	**4%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

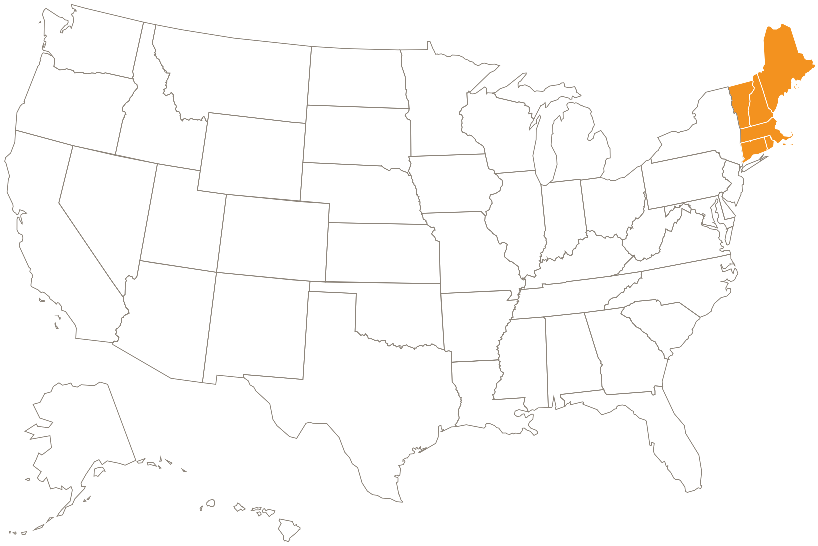
REGIONAL SUMMARY

In our regional forecast below, the weakest regions in 2017 will be the Middle Atlantic and the West North Central. The Mountain and Pacific regions will both experience double-digit growth. The Mid-Atlantic region will see slower growth in manufacturing, residential and infrastructure, while growth in the West North Central region is largely dependent on the price of oil, as the low prices continue to hit the oil fields. Residential, commercial and education construction will be strong in the Pacific region, particularly in California, where housing prices and availability are making it hard to find a place to live near where people work. The Mountain region will continue high growth rates for residential construction and have solid growth for most construction markets in 2017.

U.S. Construction Put in Place

Regional Forecast Summary (Millions of Current Dollars)

YEAR	Total Residential	Total Nonresidential Buildings	Total Nonbuilding Structures	Total Put in Place	Projected Growth 2016 to 2017
	New England				
2016	15,670	26,908	7,251	49,828	
2017	16,172	28,912	7,395	52,478	5%
	Mid-Atlantic				
2016	41,320	69,376	23,478	134,174	
2017	37,471	74,038	22,609	134,117	0%
	East North Central				
2016	25,986	71,780	25,978	123,744	
2017	27,160	75,482	27,111	129,753	5%
	West North Central				
2016	59,802	42,783	21,413	123,999	
2017	58,073	45,145	22,011	125,228	1%
	South Atlantic				
2016	104,332	86,477	49,430	240,239	
2017	107,533	92,598	52,396	252,527	5%
	East South Central				
2016	16,567	24,365	14,042	54,973	
2017	15,357	25,577	14,398	55,332	1%
	West South Central				
2016	49,355	49,513	38,437	137,306	
2017	50,737	52,630	39,962	143,329	4%
	Mountain				
2016	45,864	29,641	18,321	93,826	
2017	51,202	32,037	20,243	103,482	10%
	Pacific				
2016	113,189	68,680	29,059	210,928	
2017	132,983	73,820	32,308	239,110	13%



New England 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

										Change from Prior Year Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	5,153	6,419	6,504	7,677	8,188	8,519	8,643	8,885	9,297	18%	7%	4%
Multifamily	1,025	1,352	1,593	1,942	2,124	2,218	2,251	2,284	2,356	22%	9%	4%
Improvements*	4,573	4,629	4,571	4,992	5,358	5,435	5,434	5,493	5,581	9%	7%	1%
Total Residential Buildings	**10,751**	**12,400**	**12,668**	**14,611**	**15,670**	**16,172**	**16,328**	**16,661**	**17,234**	**15%**	**7%**	**3%**
NONRESIDENTIAL BUILDINGS												
Lodging	667	810	980	1,242	1,483	1,629	1,690	1,725	1,822	27%	19%	10%
Office	2,324	2,286	2,733	3,164	3,828	4,186	4,341	4,474	4,600	16%	21%	9%
Commercial	2,902	3,213	3,702	3,852	4,171	4,473	4,633	4,719	4,894	4%	8%	7%
Health Care	2,603	2,423	2,243	2,309	2,348	2,462	2,586	2,780	2,958	3%	2%	5%
Education	5,180	4,740	4,656	4,768	5,046	5,437	5,771	6,066	6,373	2%	6%	8%
Religious	235	214	196	208	202	207	214	219	223	6%	-3%	3%
Public Safety	638	567	548	495	471	492	520	548	573	-10%	-5%	4%
Amusement and Recreation	947	905	973	1,127	1,230	1,323	1,376	1,409	1,463	16%	9%	8%
Transportation	2,316	2,355	2,446	2,590	2,568	2,689	2,835	2,945	3,069	6%	-1%	5%
Communication	989	1,069	1,014	1,174	1,156	1,228	1,278	1,334	1,380	16%	-2%	6%
Manufacturing	2,921	3,070	3,472	4,521	4,405	4,786	5,120	5,403	5,631	30%	-3%	9%
Total Nonresidential Buildings	**21,722**	**21,652**	**22,964**	**25,450**	**26,908**	**28,912**	**30,363**	**31,623**	**32,988**	**11%**	**6%**	**7%**
NONBUILDING STRUCTURES												
Power	3,130	2,926	3,198	2,565	2,796	2,948	3,074	3,251	3,404	-20%	9%	5%
Highway and Street	2,811	2,788	2,907	2,896	3,038	3,037	3,085	3,104	3,164	0%	5%	0%
Sewage and Waste Disposal	744	741	777	778	736	729	737	762	801	0%	-5%	-1%
Water Supply	457	463	457	433	419	416	419	433	454	-5%	-3%	-1%
Conservation and Development	212	200	246	251	263	264	273	286	305	2%	5%	0%
Total Nonbuilding Structures	**7,354**	**7,117**	**7,585**	**6,922**	**7,251**	**7,395**	**7,588**	**7,836**	**8,128**	**-9%**	**5%**	**2%**
Total Put in Place	**39,827**	**41,169**	**43,217**	**46,983**	**49,828**	**52,478**	**54,279**	**56,120**	**58,350**	**9%**	**6%**	**5%**

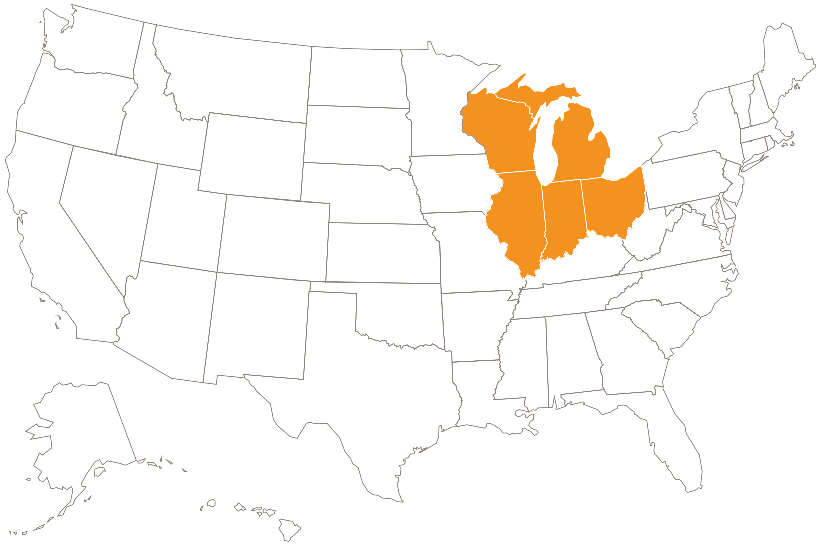
*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

Mid-Atlantic 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

										Change from Prior Year Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	12,784	15,694	19,192	26,062	20,872	19,094	17,782	17,449	17,849	36%	-20%	-9%
Multifamily	2,543	3,305	4,700	6,592	5,415	4,970	4,631	4,485	4,524	40%	-18%	-8%
Improvements*	12,486	12,457	14,846	18,649	15,033	13,406	12,303	11,872	11,793	26%	-19%	-11%
Total Residential Buildings	**27,813**	**31,456**	**38,738**	**51,303**	**41,320**	**37,471**	**34,716**	**33,806**	**34,166**	**32%**	**-19%**	**-9%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,680	2,051	2,516	3,209	3,824	4,171	4,318	4,408	4,652	28%	19%	9%
Office	5,856	5,793	7,021	8,172	9,869	10,719	11,092	11,429	11,745	16%	21%	9%
Commercial	7,311	8,141	9,509	9,949	10,755	11,456	11,836	12,055	12,495	5%	8%	7%
Health Care	6,559	6,140	5,761	5,965	6,054	6,305	6,607	7,103	7,553	4%	1%	4%
Education	13,053	12,011	11,960	12,316	13,009	13,922	14,745	15,497	16,271	3%	6% `	
Religious	593	541	504	536	520	531	547	558	570	6%	-3%	2%
Public Safety	1,608	1,436	1,408	1,279	1,215	1,259	1,328	1,400	1,463	-9%	-5%	4%
Amusement and Recreation	2,386	2,294	2,500	2,911	3,171	3,387	3,515	3,600	3,736	16%	9%	7%
Transportation	5,837	5,968	6,283	6,689	6,621	6,887	7,243	7,524	7,837	6%	-1%	4%
Communication	2,492	2,709	2,604	3,033	2,980	3,145	3,266	3,409	3,523	16%	-2%	6%
Manufacturing	7,360	7,778	8,917	11,679	11,357	12,257	13,082	13,804	14,375	31%	-3%	8%
Total Nonresidential Buildings	**54,735**	**54,863**	**58,983**	**65,739**	**69,376**	**74,038**	**77,579**	**80,787**	**84,220**	**11%**	**6%**	**7%**
NONBUILDING STRUCTURES												
Power	9,968	9,214	10,709	9,412	9,738	9,682	9,853	10,222	10,562	-12%	3%	-1%
Highway and Street	7,924	7,771	8,620	9,406	9,368	8,829	8,755	8,639	8,692	9%	0%	-6%
Sewage and Waste Disposal	2,097	2,065	2,304	2,526	2,269	2,120	2,091	2,122	2,200	10%	-10%	-7%
Water Supply	1,289	1,289	1,355	1,407	1,291	1,209	1,188	1,204	1,248	4%	-8%	-6%
Conservation and Development	599	556	730	814	811	768	775	795	837	11%	0%	-5%
Total Nonbuilding Structures	**21,878**	**20,896**	**23,718**	**23,564**	**23,478**	**22,609**	**22,662**	**22,982**	**23,539**	**-1%**	**0%**	**-4%**
Total Put in Place	**104,426**	**107,215**	**121,439**	**140,606**	**134,174**	**134,117**	**134,957**	**137,575**	**141,926**	**16%**	**-5%**	**0%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

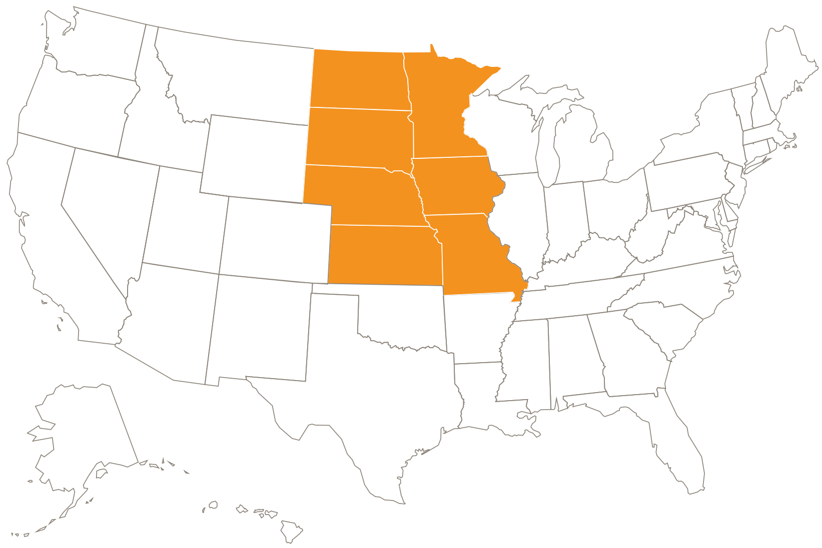


East North Central 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from Prior Year Forecast 2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	7,842	9,480	10,863	11,138	13,578	14,308	14,765	14,793	15,519	3%	22%	5%
Multifamily	1,560	1,996	2,660	2,817	3,523	3,724	3,846	3,802	3,933	6%	25%	6%
Improvements*	6,960	6,837	7,635	7,242	8,886	9,127	9,282	9,145	9,316	-5%	23%	3%
Total Residential Buildings	**16,362**	**18,314**	**21,159**	**21,197**	**25,986**	**27,160**	**27,893**	**27,740**	**28,768**	**0%**	**23%**	**5%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,648	2,038	2,546	3,337	3,957	4,252	4,349	4,402	4,609	31%	19%	7%
Office	5,746	5,755	7,104	8,497	10,211	10,928	11,174	11,413	11,635	20%	20%	7%
Commercial	7,174	8,087	9,621	10,345	11,128	11,679	11,923	12,038	12,378	8%	8%	5%
Health Care	6,436	6,099	5,830	6,203	6,263	6,427	6,656	7,093	7,482	6%	1%	3%
Education	12,808	11,932	12,102	12,806	13,460	14,193	14,853	15,475	16,118	6%	5%	5%
Religious	582	538	510	558	538	541	551	558	565	9%	-4%	1%
Public Safety	1,578	1,426	1,425	1,330	1,257	1,284	1,338	1,398	1,449	-7%	-5%	2%
Amusement and Recreation	2,342	2,279	2,530	3,027	3,281	3,453	3,541	3,594	3,701	20%	8%	5%
Transportation	5,727	5,929	6,357	6,956	6,850	7,021	7,296	7,514	7,763	9%	-2%	2%
Communication	2,445	2,692	2,635	3,154	3,084	3,206	3,290	3,404	3,490	20%	-2%	4%
Manufacturing	7,222	7,727	9,023	12,144	11,751	12,496	13,178	13,784	14,241	35%	-3%	6%
Total Nonresidential Buildings	**53,708**	**54,501**	**59,682**	**68,356**	**71,780**	**75,482**	**78,148**	**80,672**	**83,431**	**15%**	**5%**	**5%**
NONBUILDING STRUCTURES												
Power	11,856	10,840	12,251	9,894	10,775	11,610	12,360	13,018	13,556	-19%	9%	8%
Highway and Street	9,425	9,142	9,861	9,887	10,365	10,587	10,983	11,003	11,156	0%	5%	2%
Sewage and Waste Disposal	2,494	2,430	2,635	2,655	2,511	2,543	2,623	2,702	2,824	1%	-5%	1%
Water Supply	1,534	1,517	1,550	1,479	1,428	1,450	1,491	1,533	1,602	-5%	-3%	2%
Conservation and Development	712	654	836	856	898	921	973	1,013	1,074	2%	5%	3%
Total Nonbuilding Structures	**26,020**	**24,583**	**27,134**	**24,770**	**25,978**	**27,111**	**28,430**	**29,269**	**30,212**	**-9%**	**5%**	**4%**
Total Put in Place	**96,090**	**97,398**	**107,974**	**114,323**	**123,744**	**129,753**	**134,471**	**137,681**	**142,411**	**6%**	**8%**	**5%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.



West North Central 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from Prior Year Forecast 2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	22,217	26,630	28,501	28,335	31,805	31,146	31,697	32,414	33,380	-1%	12%	-2%
Multifamily	3,848	4,882	6,076	6,239	7,183	7,058	7,187	7,252	7,365	3%	15%	-2%
Improvements*	19,718	19,206	20,032	18,423	20,814	19,869	19,926	20,039	20,039	-8%	13%	-5%
Total Residential Buildings	**45,783**	**50,718**	**54,610**	**52,996**	**59,802**	**58,073**	**58,810**	**59,704**	**60,784**	**-3%**	**13%**	**-3%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,024	1,268	1,562	2,010	2,359	2,543	2,609	2,650	2,782	29%	17%	8%
Office	3,570	3,581	4,359	5,119	6,086	6,536	6,704	6,870	7,023	17%	19%	7%
Commercial	4,457	5,032	5,904	6,232	6,632	6,985	7,154	7,247	7,472	6%	6%	5%
Health Care	3,998	3,795	3,577	3,737	3,733	3,844	3,993	4,270	4,517	4%	0%	3%
Education	7,958	7,424	7,426	7,715	8,023	8,489	8,911	9,315	9,730	4%	4%	6%
Religious	361	334	313	336	321	324	330	336	341	7%	-5%	1%
Public Safety	980	887	874	801	749	768	803	842	875	-8%	-6%	2%
Amusement and Recreation	1,455	1,418	1,552	1,823	1,955	2,065	2,124	2,164	2,234	17%	7%	6%
Transportation	3,558	3,689	3,901	4,190	4,083	4,199	4,377	4,523	4,686	7%	-3%	3%
Communication	1,519	1,675	1,617	1,900	1,838	1,918	1,974	2,049	2,107	18%	-3%	4%
Manufacturing	4,487	4,808	5,537	7,316	7,004	7,474	7,906	8,298	8,596	32%	-4%	7%
Total Nonresidential Buildings	**33,368**	**33,910**	**36,625**	**41,180**	**42,783**	**45,145**	**46,886**	**48,563**	**50,364**	**12%**	**4%**	**6%**
NONBUILDING STRUCTURES												
Power	9,038	9,746	10,379	8,382	8,669	9,205	9,722	10,347	10,802	-19%	3%	6%
Highway and Street	8,355	8,511	8,651	8,674	8,635	8,692	8,946	9,056	9,205	0%	0%	1%
Sewage and Waste Disposal	2,254	2,307	2,358	2,375	2,133	2,129	2,179	2,268	2,376	1%	-10%	0%
Water Supply	1,386	1,440	1,387	1,323	1,213	1,214	1,238	1,287	1,348	-5%	-8%	0%
Conservation and Development	644	621	747	765	763	771	808	850	904	2%	0%	1%
Total Nonbuilding Structures	**21,677**	**22,625**	**23,521**	**21,519**	**21,413**	**22,011**	**22,892**	**23,808**	**24,634**	**-9%**	**0%**	**3%**
Total Put in Place	**100,828**	**107,253**	**114,756**	**115,695**	**123,999**	**125,228**	**128,588**	**132,075**	**135,782**	**1%**	**7%**	**1%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

South Atlantic 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from Prior Year Forecast 2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	28,262	37,200	39,891	49,414	54,709	56,854	59,489	61,641	64,966	24%	11%	4%
Multifamily	5,475	7,628	9,512	12,169	13,820	14,410	15,087	15,426	16,032	28%	14%	4%
Improvements*	25,082	26,828	28,038	32,129	35,803	36,269	37,398	38,108	39,001	15%	11%	1%
Total Residential Buildings	**58,819**	**71,656**	**77,440**	**93,712**	**104,332**	**107,533**	**111,973**	**115,174**	**120,000**	**21%**	**11%**	**3%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,947	2,445	3,043	3,950	4,767	5,216	5,394	5,511	5,808	30%	21%	9%
Office	6,785	6,904	8,491	10,059	12,302	13,406	13,858	14,289	14,661	18%	22%	9%
Commercial	8,472	9,701	11,500	12,248	13,406	14,327	14,787	15,072	15,598	7%	9%	7%
Health Care	7,600	7,317	6,968	7,343	7,546	7,885	8,255	8,881	9,429	5%	3%	4%
Education	15,126	14,313	14,464	15,161	16,216	17,412	18,421	19,375	20,311	5%	7%	7%
Religious	687	645	610	660	648	664	683	698	711	8%	-2%	3%
Public Safety	1,863	1,711	1,703	1,575	1,515	1,575	1,659	1,751	1,826	-8%	-4%	4%
Amusement and Recreation	2,765	2,734	3,024	3,583	3,952	4,236	4,391	4,500	4,664	19%	10%	7%
Transportation	6,764	7,112	7,598	8,234	8,253	8,613	9,048	9,407	9,783	8%	0%	4%
Communication	2,888	3,229	3,149	3,734	3,715	3,933	4,081	4,262	4,398	19%	0%	6%
Manufacturing	8,528	9,269	10,785	14,377	14,157	15,329	16,343	17,259	17,945	33%	-2%	8%
Total Nonresidential Buildings	**63,426**	**65,380**	**71,333**	**80,924**	**86,477**	**92,598**	**96,920**	**101,005**	**105,134**	**13%**	**7%**	**7%**
NONBUILDING STRUCTURES												
Power	20,587	20,400	21,559	18,983	20,503	22,438	24,139	26,020	27,564	-12%	8%	9%
Highway and Street	16,366	17,205	17,353	18,971	19,723	20,461	21,450	21,992	22,683	9%	4%	4%
Sewage and Waste Disposal	4,330	4,573	4,638	5,094	4,778	4,914	5,123	5,401	5,742	10%	-6%	3%
Water Supply	2,663	2,855	2,728	2,837	2,717	2,803	2,911	3,064	3,258	4%	-4%	3%
Conservation and Development	1,237	1,231	1,470	1,641	1,708	1,780	1,900	2,025	2,185	12%	4%	4%
Total Nonbuilding Structures	**45,183**	**46,265**	**47,749**	**47,526**	**49,430**	**52,396**	**55,522**	**58,501**	**61,432**	**0%**	**4%**	**6%**
Total Put in Place	**167,428**	**183,300**	**196,522**	**222,163**	**240,239**	**252,527**	**264,416**	**274,681**	**286,567**	**13%**	**8%**	**5%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

East South Central 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

										Change from Prior Year Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	4,884	5,158	6,038	7,572	8,768	8,196	8,039	8,154	8,484	25%	16%	-7%
Multifamily	866	968	1,318	1,708	2,028	1,902	1,867	1,869	1,917	30%	19%	-6%
Improvements*	4,032	3,741	4,268	4,951	5,771	5,259	5,083	5,070	5,123	16%	17%	-9%
Total Residential Buildings	**9,782**	**9,867**	**11,625**	**14,231**	**16,567**	**15,357**	**14,989**	**15,093**	**15,524**	**22%**	**16%**	**-7%**
NONRESIDENTIAL BUILDINGS												
Lodging	555	684	853	1,129	1,345	1,443	1,468	1,487	1,558	32%	19%	7%
Office	1,933	1,932	2,381	2,874	3,471	3,708	3,772	3,855	3,932	21%	21%	7%
Commercial	2,414	2,690	3,195	3,468	3,749	3,927	3,988	4,030	4,146	9%	8%	5%
Health Care	2,165	2,047	1,954	2,098	2,129	2,181	2,247	2,396	2,529	7%	1%	2%
Education	4,310	4,005	4,055	4,332	4,575	4,816	5,013	5,227	5,447	7%	6%	5%
Religious	196	180	171	189	183	184	186	188	191	10%	-3%	1%
Public Safety	531	479	477	450	427	436	452	472	490	-6%	-5%	2%
Amusement and Recreation	788	765	848	1,024	1,115	1,172	1,195	1,214	1,251	21%	9%	5%
Transportation	1,927	1,990	2,130	2,353	2,328	2,382	2,463	2,538	2,624	10%	-1%	2%
Communication	823	903	883	1,067	1,048	1,088	1,111	1,150	1,179	21%	-2%	4%
Manufacturing	2,430	2,593	3,024	4,108	3,994	4,240	4,448	4,656	4,813	36%	-3%	6%
Total Nonresidential Buildings	**18,071**	**18,268**	**19,971**	**23,093**	**24,365**	**25,577**	**26,341**	**27,212**	**28,158**	**16%**	**6%**	**5%**
NONBUILDING STRUCTURES												
Power	5,637	5,006	5,406	4,744	5,233	5,553	5,704	6,010	6,292	-12%	10%	6%
Highway and Street	5,140	4,843	4,991	5,438	5,774	5,808	5,814	5,827	5,939	9%	6%	1%
Sewage and Waste Disposal	1,537	1,455	1,508	1,651	1,581	1,577	1,569	1,617	1,699	9%	-4%	0%
Water Supply	933	896	875	907	887	887	880	905	951	4%	-2%	0%
Conservation and Development	441	393	480	534	567	573	584	608	649	11%	6%	1%
Total Nonbuilding Structures	**13,688**	**12,592**	**13,259**	**13,273**	**14,042**	**14,398**	**14,550**	**14,968**	**15,530**	**0%**	**6%**	**3%**
Total Put in Place	**41,541**	**40,727**	**44,856**	**50,596**	**54,973**	**55,332**	**55,880**	**57,273**	**59,212**	**13%**	**9%**	**1%**

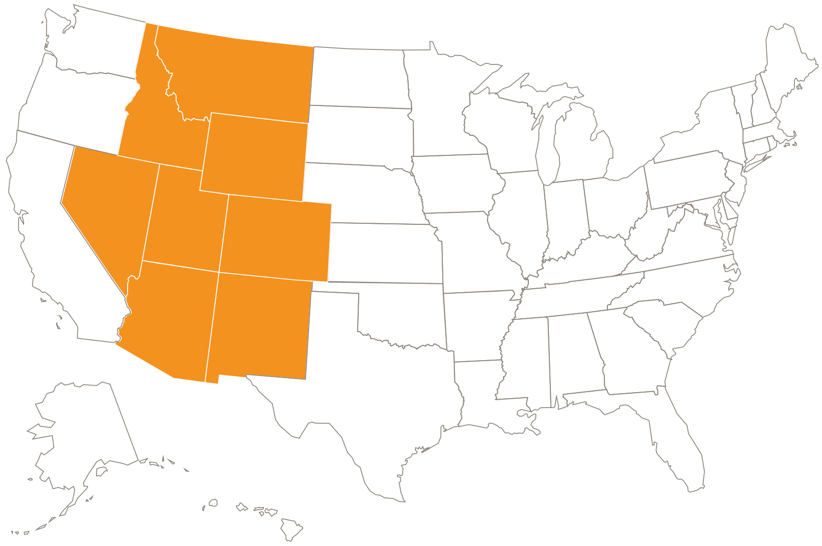
*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

West South Central 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

										Change from Prior Year Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	16,686	19,605	22,917	26,969	27,382	28,346	29,753	30,963	32,372	18%	2%	4%
Multifamily	3,388	4,258	5,788	7,034	7,326	7,609	7,992	8,207	8,461	22%	4%	4%
Improvements*	12,142	11,558	13,167	14,334	14,648	14,781	15,289	15,647	15,886	9%	2%	1%
Total Residential Buildings	**32,217**	**35,420**	**41,871**	**48,337**	**49,355**	**50,737**	**53,034**	**54,817**	**56,720**	**15%**	**2%**	**3%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,159	1,455	1,820	2,362	2,777	3,017	3,127	3,203	3,374	30%	18%	9%
Office	3,856	3,921	4,848	5,741	6,840	7,401	7,668	7,925	8,130	18%	19%	8%
Commercial	4,953	5,667	6,754	7,190	7,667	8,136	8,416	8,599	8,897	6%	7%	6%
Health Care	4,526	4,353	4,169	4,391	4,396	4,561	4,786	5,161	5,478	5%	0%	4%
Education	9,007	8,516	8,654	9,065	9,447	10,071	10,679	11,259	11,801	5%	4%	7%
Religious	409	384	365	395	377	384	396	406	413	8%	-4%	2%
Public Safety	1,110	1,018	1,019	942	882	911	962	1,017	1,061	-8%	-6%	3%
Amusement and Recreation	1,647	1,627	1,809	2,143	2,302	2,450	2,546	2,615	2,710	18%	7%	6%
Transportation	4,028	4,232	4,546	4,924	4,808	4,982	5,246	5,467	5,684	8%	-2%	4%
Communication	1,720	1,921	1,884	2,233	2,164	2,275	2,366	2,477	2,555	18%	-3%	5%
Manufacturing	5,079	5,251	6,143	8,186	7,852	8,442	9,021	9,549	9,927	33%	-4%	8%
Total Nonresidential Buildings	**37,493**	**38,345**	**42,011**	**47,571**	**49,513**	**52,630**	**55,211**	**57,676**	**60,031**	**13%**	**4%**	**6%**
NONBUILDING STRUCTURES												
Power	17,866	16,765	17,767	15,471	15,879	17,048	18,265	19,712	20,798	-13%	3%	7%
Highway and Street	13,715	13,653	13,809	14,930	14,750	15,011	15,673	16,088	16,527	8%	-1%	2%
Sewage and Waste Disposal	4,425	4,425	4,500	4,889	4,357	4,396	4,564	4,817	5,101	9%	-11%	1%
Water Supply	2,261	2,295	2,199	2,262	2,059	2,083	2,155	2,271	2,405	3%	-9%	1%
Conservation and Development	1,131	1,066	1,276	1,409	1,393	1,424	1,514	1,616	1,736	10%	-1%	2%
Total Nonbuilding Structures	**39,398**	**38,204**	**39,551**	**38,961**	**38,437**	**39,962**	**42,171**	**44,504**	**46,567**	**-1%**	**-1%**	**4%**
Total Put in Place	**109,108**	**111,969**	**123,433**	**134,869**	**137,306**	**143,329**	**150,417**	**156,997**	**163,318**	**9%**	**2%**	**4%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

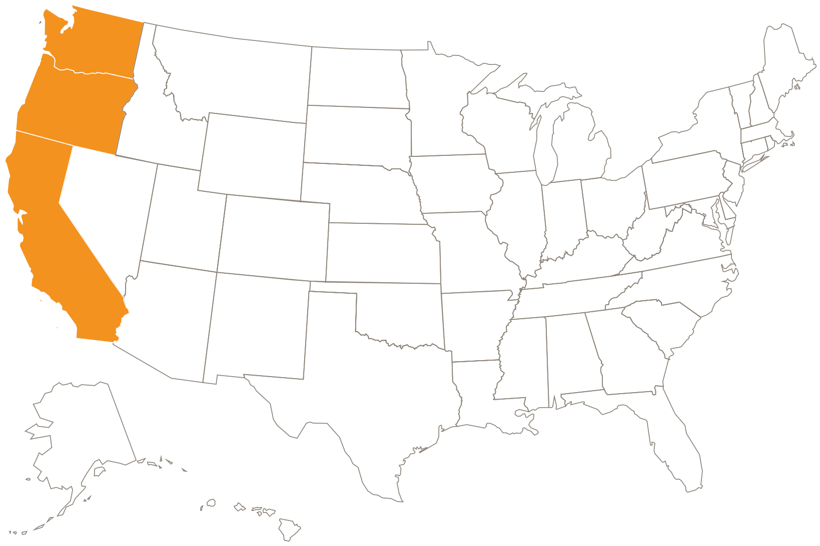


Mountain 4th Quarter 2016 Forecast

Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

										Change from Prior Year Forecast		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	10,969	14,662	17,406	20,939	24,324	27,378	29,049	30,160	32,015	20%	16%	13%
Multifamily	2,104	2,910	4,018	4,992	5,948	6,717	7,131	7,306	7,648	24%	19%	13%
Improvements*	9,564	10,358	11,984	13,336	15,593	17,108	17,888	18,264	18,826	11%	17%	10%
Total Residential Buildings	**22,637**	**27,930**	**33,408**	**39,267**	**45,864**	**51,202**	**54,069**	**55,730**	**58,489**	**18%**	**17%**	**12%**
NONRESIDENTIAL BUILDINGS												
Lodging	669	851	1,063	1,385	1,672	1,847	1,925	1,976	2,090	30%	21%	10%
Office	2,332	2,362	2,916	3,468	4,242	4,667	4,863	5,038	5,188	19%	22%	10%
Commercial	2,912	3,216	3,826	4,091	4,478	4,832	5,027	5,148	5,347	7%	9%	8%
Health Care	2,612	2,577	2,463	2,606	2,678	2,825	2,981	3,222	3,434	6%	3%	5%
Education	5,199	4,877	4,947	5,206	5,568	6,036	6,438	6,802	7,158	5%	7%	8%
Religious	236	228	217	235	231	239	248	255	260	9%	-2%	4%
Public Safety	640	600	599	557	535	562	597	633	662	-7%	-4%	5%
Amusement and Recreation	951	963	1,069	1,272	1,403	1,519	1,587	1,634	1,700	19%	10%	8%
Transportation	2,325	2,476	2,655	2,889	2,895	3,050	3,230	3,374	3,522	9%	0%	5%
Communication	993	1,085	1,062	1,264	1,258	1,344	1,406	1,475	1,528	19%	0%	7%
Manufacturing	2,931	3,041	3,551	4,753	4,681	5,117	5,499	5,834	6,089	34%	-2%	9%
Total Nonresidential Buildings	**21,801**	**22,277**	**24,368**	**27,726**	**29,641**	**32,037**	**33,802**	**35,390**	**36,977**	**14%**	**7%**	**8%**
NONBUILDING STRUCTURES												
Power	6,782	6,483	6,985	6,162	6,534	7,478	8,252	8,917	9,479	-12%	6%	14%
Highway and Street	6,817	7,104	7,305	8,001	8,168	8,860	9,528	9,793	10,136	10%	2%	8%
Sewage and Waste Disposal	1,737	1,764	1,823	2,007	1,848	1,987	2,125	2,246	2,396	10%	-8%	8%
Water Supply	1,069	1,132	1,103	1,149	1,080	1,165	1,241	1,310	1,398	4%	-6%	8%
Conservation and Development	496	496	604	676	690	752	823	880	953	12%	2%	9%
Total Nonbuilding Structures	**16,901**	**16,978**	**17,820**	**17,995**	**18,321**	**20,243**	**21,970**	**23,145**	**24,361**	**1%**	**2%**	**10%**
Total Put in Place	**61,339**	**67,185**	**75,596**	**84,988**	**93,826**	**103,482**	**109,841**	**114,266**	**119,827**	**12%**	**10%**	**10%**

*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.



Pacific 4th Quarter 2016 Forecast

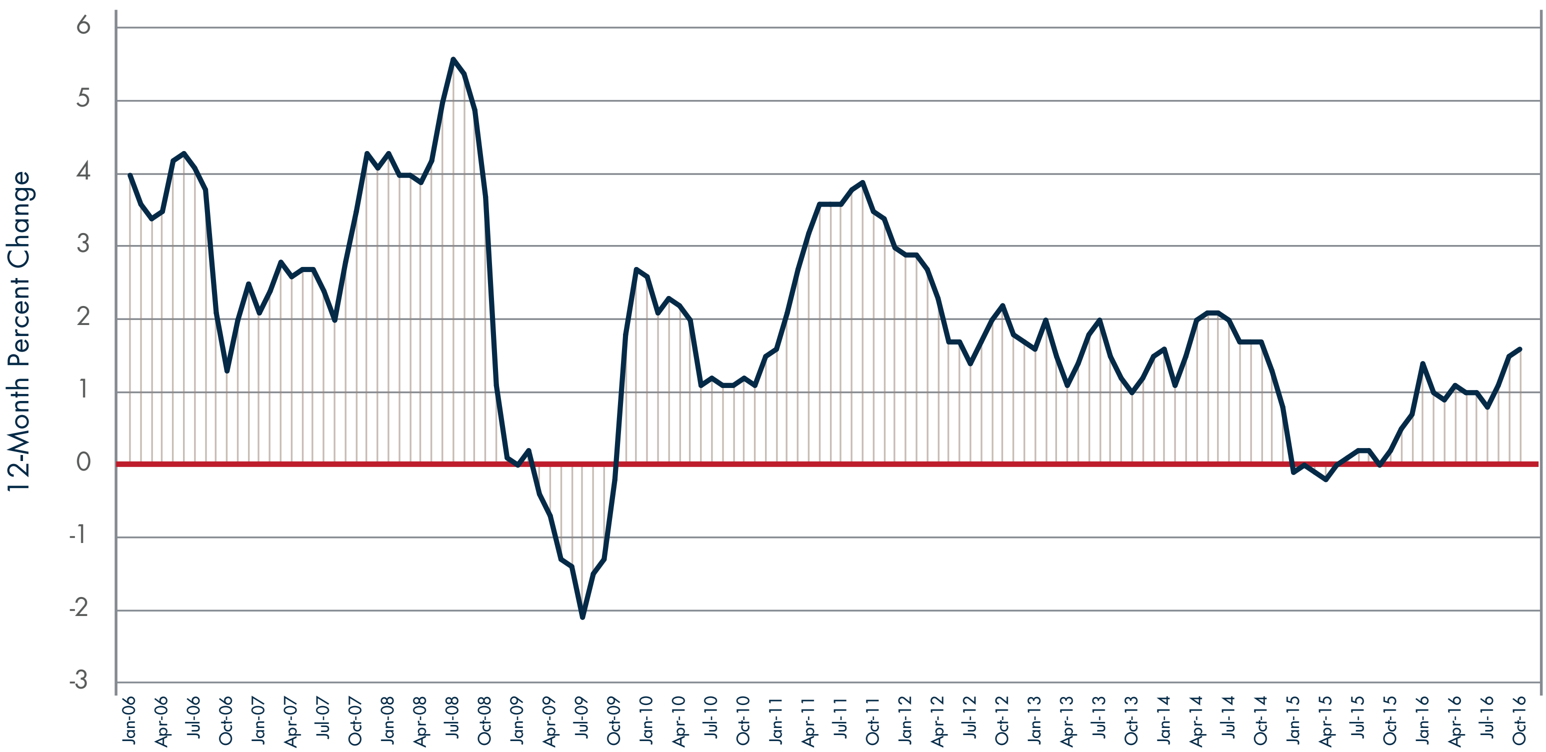
Based on 3rd Quarter 2016 Actuals
Millions of Current Dollars

	2012	2013	2014	2015	2016	2017	2018	2019	2020	Change from Prior Year Forecast 2015	2016	2017
RESIDENTIAL BUILDINGS												
Single-family	24,872	36,989	42,779	54,943	59,119	70,027	74,406	77,132	80,685	28%	8%	18%
Multifamily	4,948	7,871	10,586	14,041	15,498	18,419	19,582	20,031	20,663	33%	10%	19%
Improvements*	22,073	26,596	29,977	35,616	38,573	44,537	46,635	47,541	48,292	19%	8%	15%
Total Residential Buildings	**51,893**	**71,456**	**83,342**	**104,601**	**113,189**	**132,983**	**140,623**	**144,703**	**149,639**	**26%**	**8%**	**17%**
NONRESIDENTIAL BUILDINGS												
Lodging	1,487	1,883	2,355	3,104	3,728	4,095	4,243	4,321	4,538	32%	20%	10%
Office	5,397	5,445	6,729	8,094	9,850	10,778	11,164	11,473	11,732	20%	22%	9%
Commercial	6,739	7,413	8,830	9,548	10,400	11,159	11,541	11,724	12,093	8%	9%	7%
Health Care	6,045	5,939	5,683	6,081	6,219	6,524	6,844	7,339	7,766	7%	2%	5%
Education	12,031	11,242	11,416	12,149	12,931	13,941	14,779	15,493	16,187	6%	6%	8%
Religious	546	526	500	550	537	552	569	580	589	10%	-2%	3%
Public Safety	1,482	1,383	1,383	1,299	1,243	1,297	1,370	1,441	1,498	-6%	-4%	4%
Amusement and Recreation	2,200	2,221	2,468	2,969	3,259	3,507	3,643	3,721	3,844	20%	10%	8%
Transportation	5,380	5,707	6,127	6,741	6,723	7,045	7,416	7,685	7,965	10%	0%	5%
Communication	2,297	2,500	2,450	2,949	2,920	3,104	3,227	3,359	3,455	20%	-1%	6%
Manufacturing	6,784	7,010	8,196	11,093	10,870	11,817	12,624	13,288	13,770	35%	-2%	9%
Total Nonresidential Buildings	**50,388**	**51,269**	**56,137**	**64,578**	**68,680**	**73,820**	**77,420**	**80,424**	**83,436**	**15%**	**6%**	**7%**
NONBUILDING STRUCTURES												
Power	12,570	11,937	12,963	11,554	11,894	13,656	15,072	16,090	16,848	-11%	3%	15%
Highway and Street	9,993	10,346	10,722	11,866	11,758	12,797	13,763	13,975	14,247	11%	-1%	9%
Sewage and Waste Disposal	2,644	2,666	2,778	3,089	2,761	2,980	3,187	3,327	3,496	11%	-11%	8%
Water Supply	1,626	1,711	1,680	1,768	1,614	1,747	1,861	1,940	2,039	5%	-9%	8%
Conservation and Development	755	750	920	1,040	1,032	1,128	1,235	1,304	1,390	13%	-1%	9%
Total Nonbuilding Structures	**27,587**	**27,410**	**29,063**	**29,317**	**29,059**	**32,308**	**35,117**	**36,637**	**38,021**	**1%**	**-1%**	**11%**
Total Put in Place	**129,869**	**150,135**	**168,542**	**198,495**	**210,928**	**239,110**	**253,161**	**261,764**	**271,097**	**18%**	**6%**	**13%**

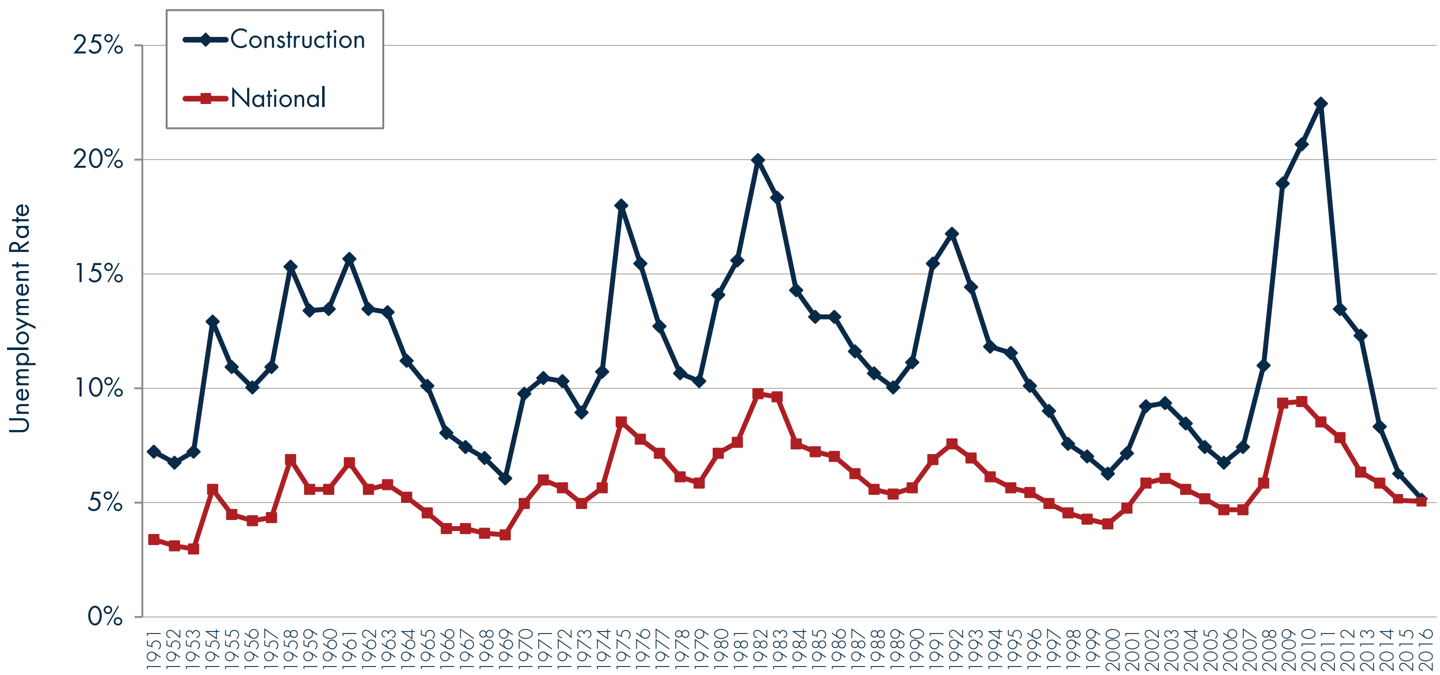
*Improvements includes additions, alterations and major replacements. It does not include maintenance and repairs.

APPENDIX

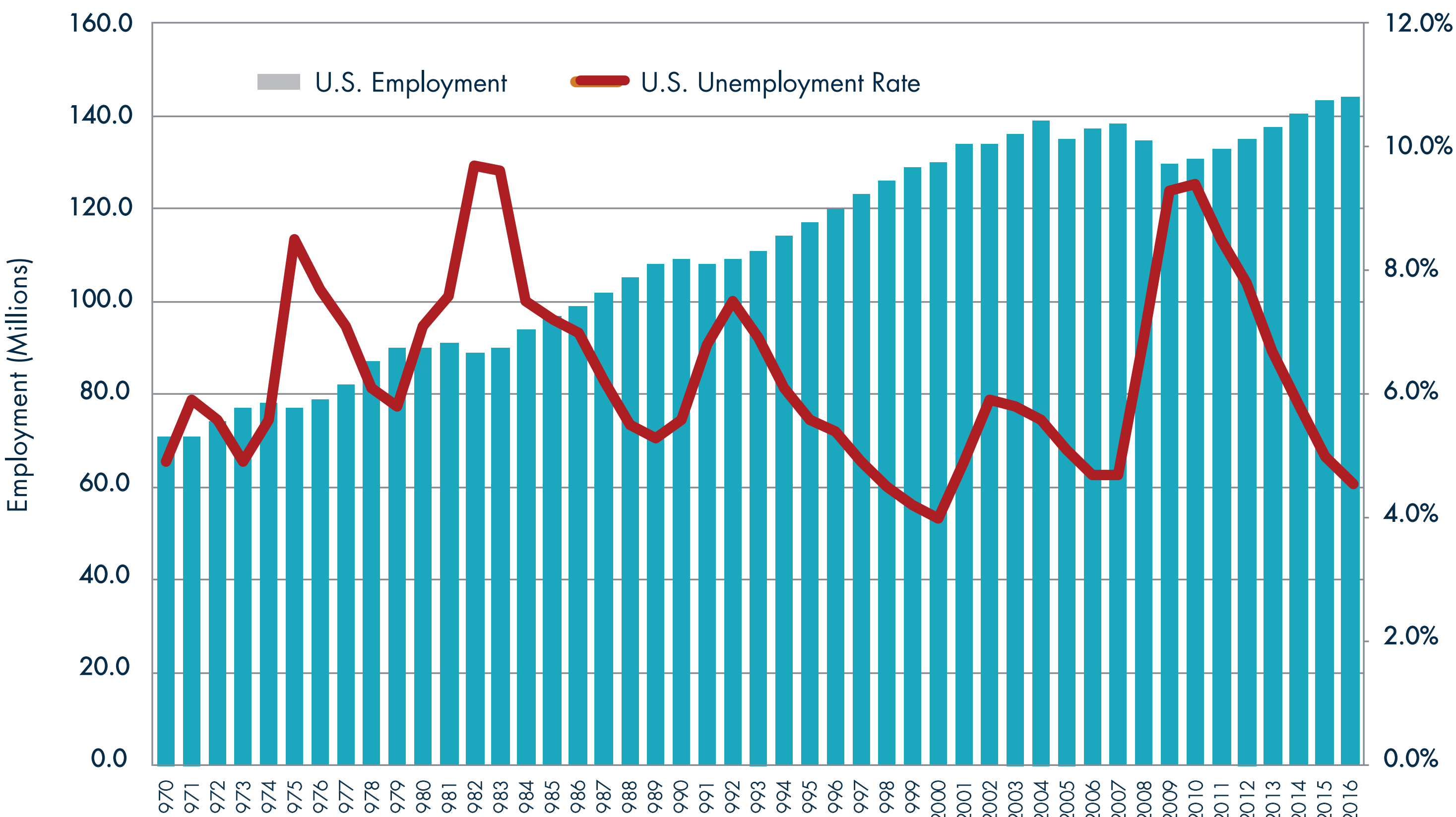
CONSUMER PRICE INDEX
All Urban Consumer, 12-Month Percent Change



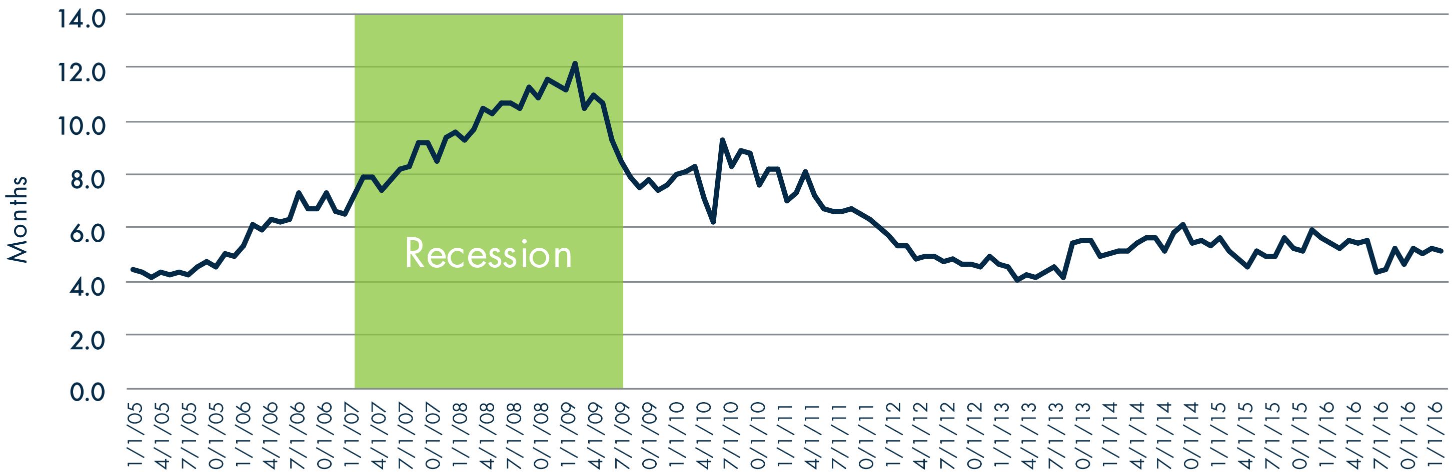
CONSTRUCTION UNEMPLOYMENT RATES



EMPLOYMENT AND UNEMPLOYMENT RATE COMPARISON

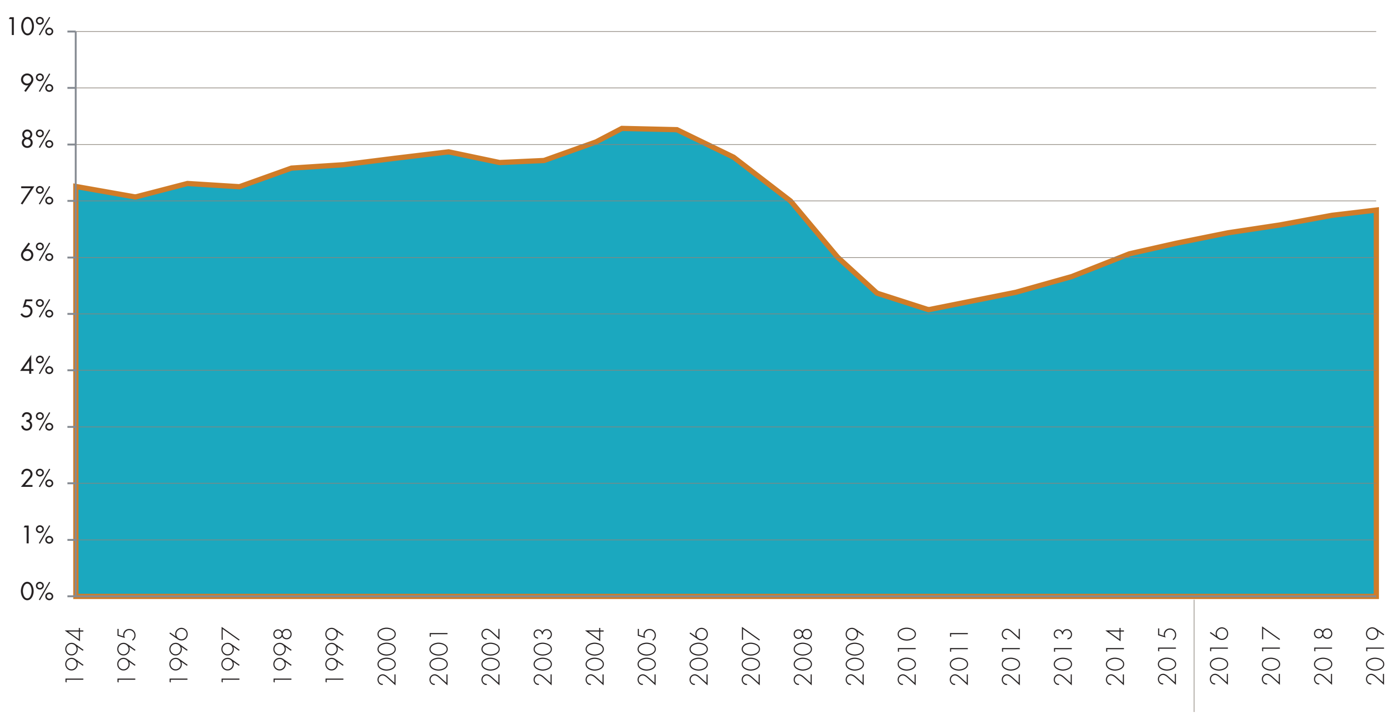


MONTHLY HOUSING SUPPLY

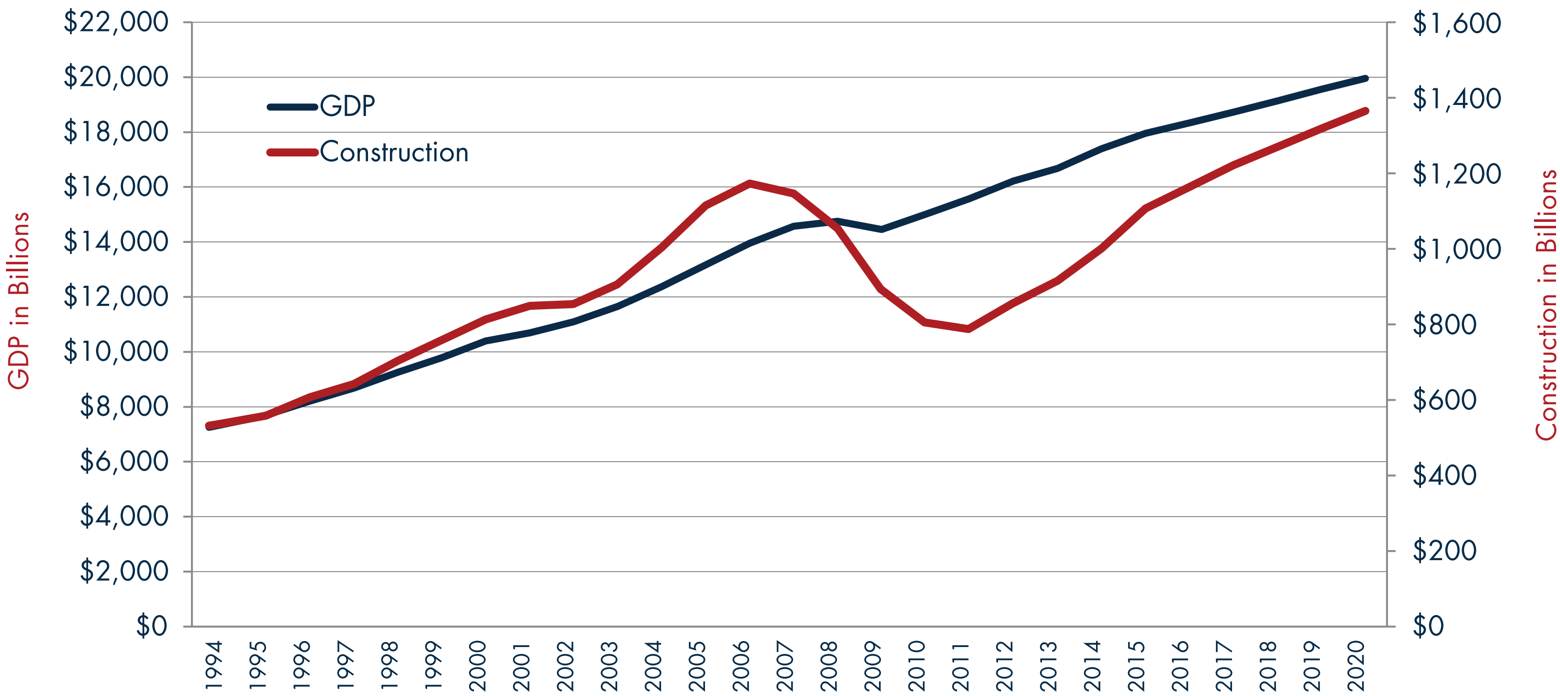


Federal Reserve Economic Data, https://research.stlouisfed.org/fred2

CONSTRUCTION AS A PERCENTAGE OF GDP



CONSTRUCTION SPENDING AND NOMINAL GDP



VALUE OF PUBLIC CONSTRUCTION PUT IN PLACE – SEASONALLY ADJUSTED RATE

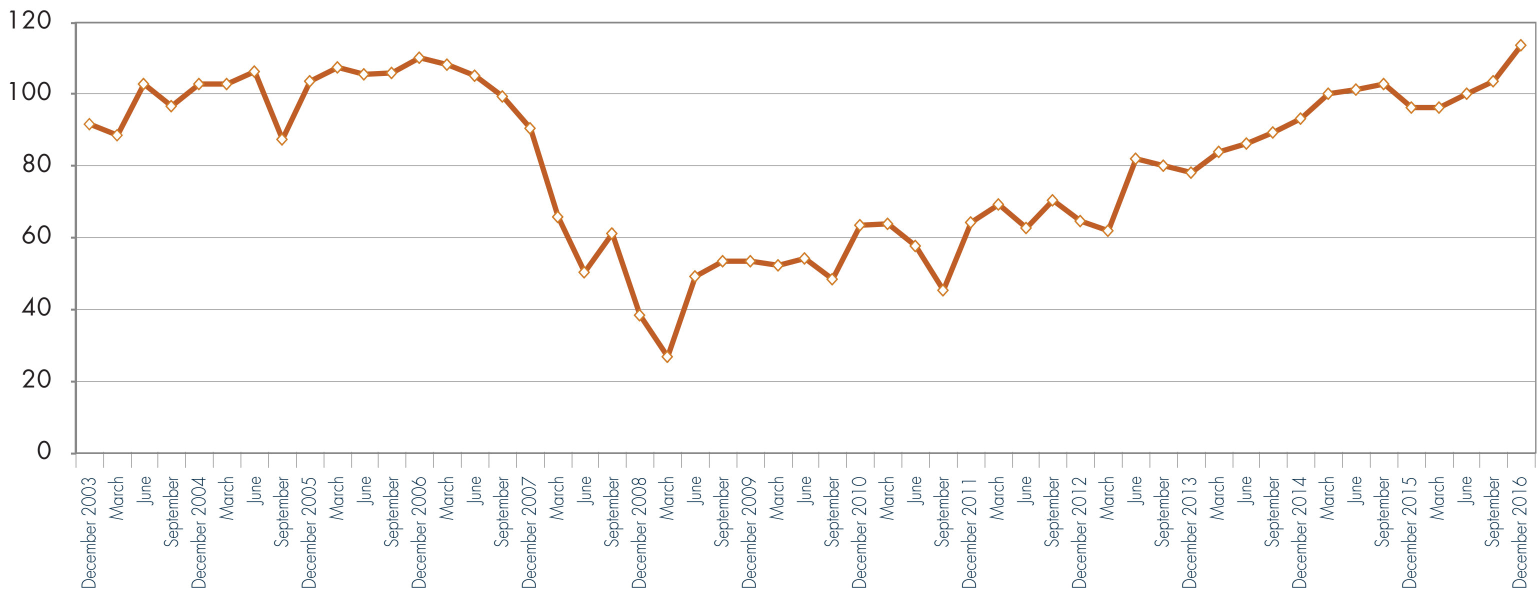
(Millions of dollars, Details may not add to totals due to rounding.)

Value of Construction Put in Place – Seasonally Adjusted Annual Rate (Millions of Dollars)	Total Construction Put in Place (October 2015)	% of Total Construction Put in Place (Q3 2015)	Total Construction Put in Place (Q4 2016 Forecast)	% of Total Construction Put in Place (Q4 2016)
*Public Construction	288,662	26%	286,788	25%
*State and Local	263,992	24%	$263,051	23%
*Federal	24,670	2%	23,738	2%
FMI Forecast: Private Construction Put in Place	$820,056	74%	$882,228	75%
FMI Forecast: Construction Put in Place	$1,108,718	100%	$1,169,016	100%

*from U.S. Census Bureau Construction Spending Report

Updated 11/6/16 (Gov. numbers as of October 2016)

CONFERENCE BOARD CONSUMER CONFIDENCE INDEX



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