

FMI's CONSTRUCTION OUTLOOK

3rd Quarter 2013 Report

The sun shines brightest in the direction of residential construction, the only sector that we see growing in double digits.



As the construction industry stands at the third quarter and looks ahead at 2014, we can say that mostly the view is not too bad from here. Then, it's a sunny day over most of the nation with hardly a cloud on the horizon for most markets in the construction industry. The sun shines brightest in the direction of residential construction, the only sector that we see growing in double digits. While nowhere do we see a hot spot for construction growth, we expect most areas to grow slightly ahead of GDP growth. However, as one looks more carefully at our analysis in this report, there are some foggy areas, especially in those markets dependent on infrastructure growth. Commercial construction is still waiting on consumers still working their way out of debt or trying to find good-paying jobs. The job market is improving, but still shaky in most parts of the country unless you are prepared to move to a shale oil boomtown.

However, to continue our meteorological metaphor, weather forecasting is complex, and the satellites that can look around the globe from on high show that there is "weather" out there. Our sunny day could be in jeopardy as we look at the news feeds. The president and Congress are reviewing evidence of the latest chemical attacks in Syria, and there are warships at sea steaming toward that part of the Middle East. Again. With a little more than half the nation in agreement about sending our military into Syria, we are heading for a new "conflict," and who knows what it will mean for the economy or to Syria and our enemies and allies around the globe? Then, you can almost feel it in the hint of autumn air—and I don't mean the start of football season—there is another battle looming larger on the horizon. It's time for Congress and the president to go at it again over the debt crisis and raising the ceiling on borrowing. How much can we cut when we are considering another war (conflict)? Morally, we, the U.S., have duties to both our own citizens and others around the globe. We can't really separate politics, moral issues and economic issues anymore; however, we try to in our forecast, because it is really tough to factor in the complex global issues as they might impact construction. One exception might be the effect of government spending on construction, which

is shrinking at about 4% to 5% from last year to 2013, with more expected as we look for more "sequestration-type" cuts.

As noted above, one of the positive areas this year has been a continued growth in residential construction. However, as we found in our recent "current issues" question for FMI's 3rd Quarter Nonresidential Construction Index (NRCI), where once the connection between residential and nonresidential construction was accepted as closely linked, that link may be more indirect or tenuous at best. If a link does exist, some NRCI panelists put the lag at between 18 and 24 months. One panelist offered an interesting theory as to why there may be more disconnect between residential and nonresidential growth these days:

Improvement in nonresidential construction typically follows improvement in residential construction, as new homeowners must buy products to furnish their new homes, generating the need for more manufacturing capacity. However, with so much manufacturing now being done overseas, the effect of this purchasing power may not have as much impact on U.S. nonresidential construction as it once did.

If there is any link these days, it appears to be more of an emotional link. If residential construction continues to grow, it will help the feeling that the economy is getting back on track and that owners in the nonresidential construction sector should consider getting on the bandwagon, so to speak. So far, we haven't forgotten the last building bubble, and interest rates are showing signs of creeping higher. Bottom line, it is good that residential construction is growing, and if it is sustainable, we can use any help we can get to keep nonresidential construction growing.

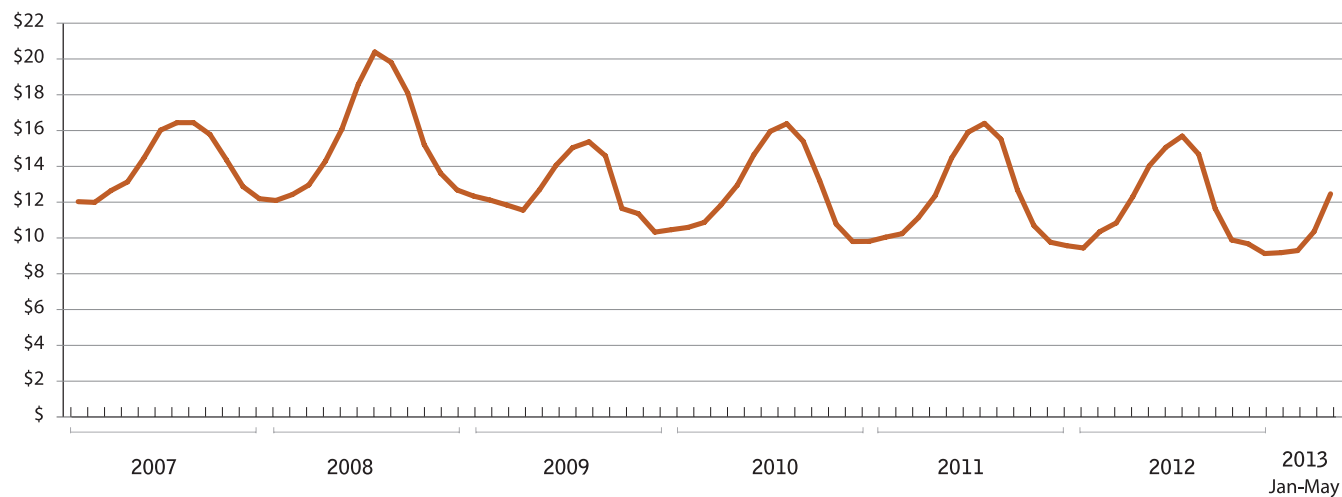
Meanwhile, our overall forecast shows subdued growth. Although most economic indexes are positive, they are just barely so, and it is still two steps ahead, one step back and sometimes the other way around. Fuel prices remain relatively low, but not historically low. Shale oil and gas

exploration is booming, but it is only beginning to help attract more manufacturing back to the U.S.—although many expect a real resurgence in U.S. manufacturing. If, and when, that happens, the comments from our NRCI panelist quoted above may change in a year or two, but not right away. For now, good-paying manufacturing jobs are hard to find, and that keeps consumer spending down.

Health care construction has slowed, in large part because of the uncertainty surrounding Obamacare and health insurance in general. More people out of work or in low-paying jobs means fewer insured, and health care for anything other than a cut on the finger is too costly for the uninsured these days. Yet, we have this growing population reaching retirement age, if they dare to retire, who will want more health care. It is a conundrum that hasn't been solved yet. We have no lack of challenges, but we do have a lack of action on the part of politicians. It seems on every issue, including whether or not to do something in Syria or with the budget or with the immigration bill or, on and on, we are divided right down the middle. Bankers and businesspeople don't like uncertainty, and we have enough of that to go around.

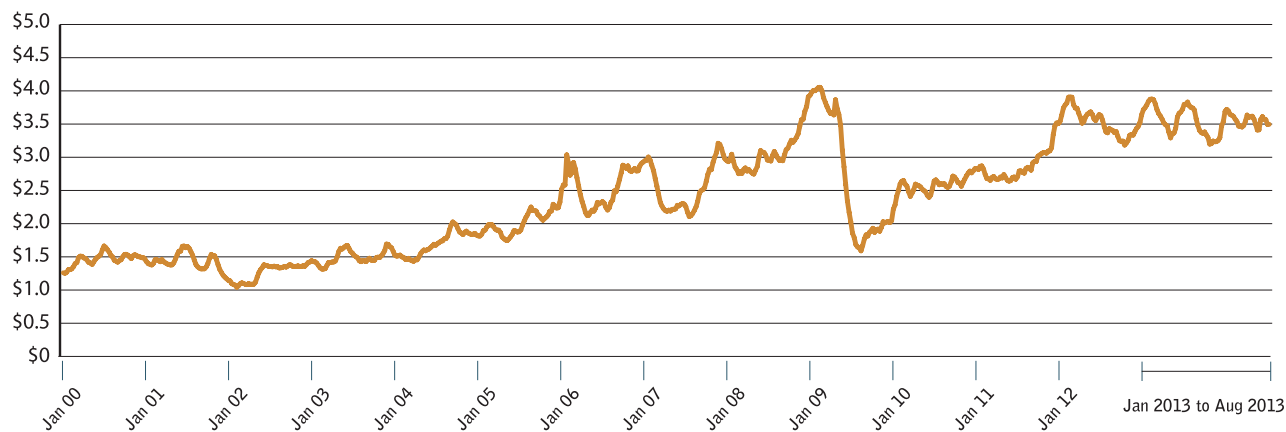
Despite all the problems and potential storms on the horizon, real and imagined, things are picking up for the economy. There are reports that are more positive, and consumer confidence is on the uptick. Our panelists for the NRCI are feeling a bit better too, although with plenty of caution. This is the new normal, and while we don't like all of its permutations, there are signs that we are learning to deal with it. We are factoring it in to our plans and applying some American ingenuity here and there to learn how to manage in this changing economy. As to the geopolitical upheavals and despots, we have more to learn about how to deal with them. Much more. It doesn't seem likely the world will just get tired of fighting and get back to building a better life. That's just too simple an idea, and the weather is a complicated thing.

United States Price of Natural Gas Delivered to Residential Consumers (Dollars Per Thousand Cubic Feet)



Source: U.S. Energy Information Administration

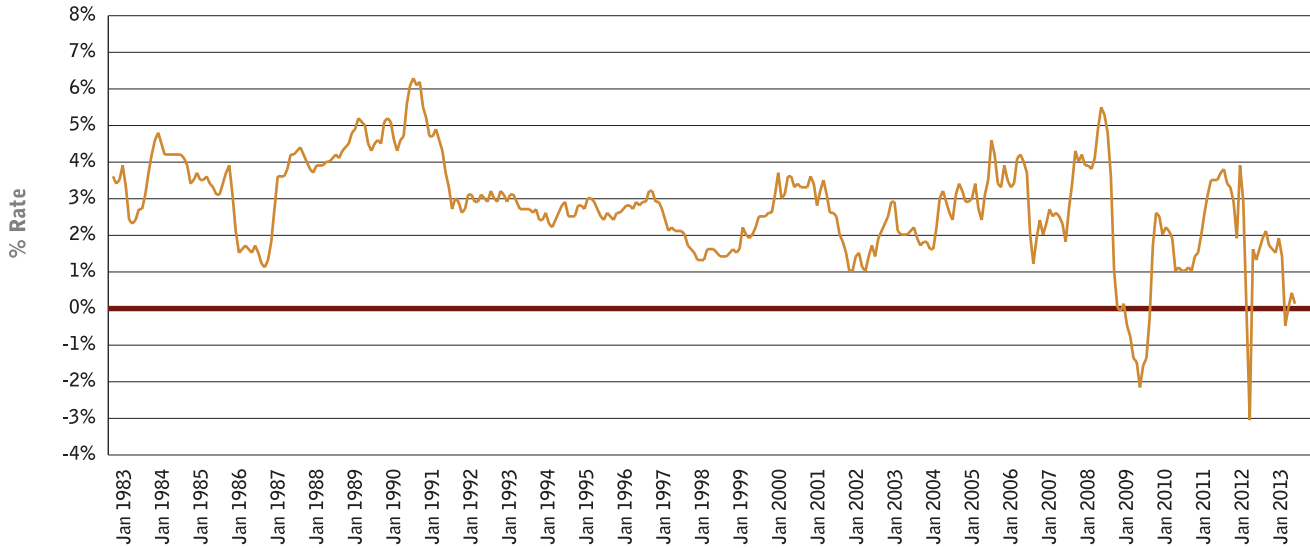
Weekly U.S. Regular Conventional Retail Gasoline Prices (Dollars Per Gallon)



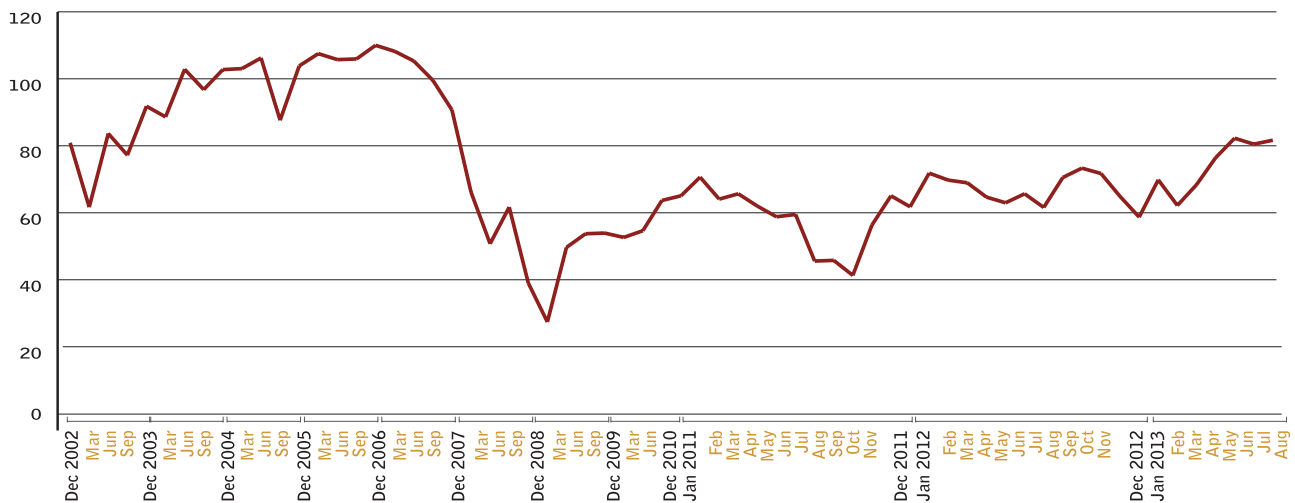
Source: <http://www.eia.gov/petroleum/gasdiesel/>

Consumer Price Index

Inflation Remains Under Control

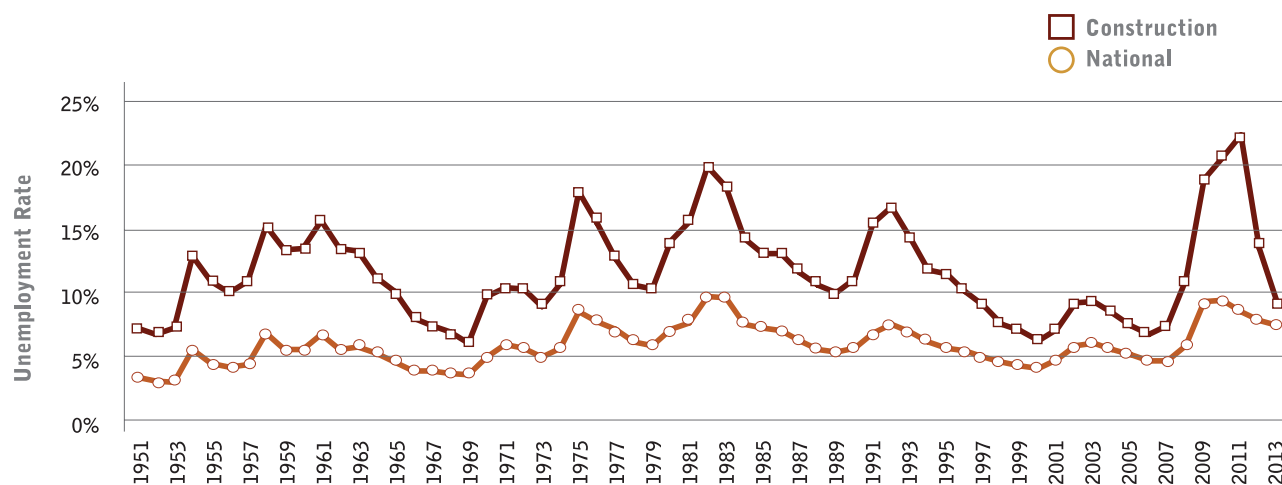


Consumer Confidence Index



Source: The Conference Board

Construction Unemployment Rates



“Construction employment gained 7,000 jobs in May.” (BLS)

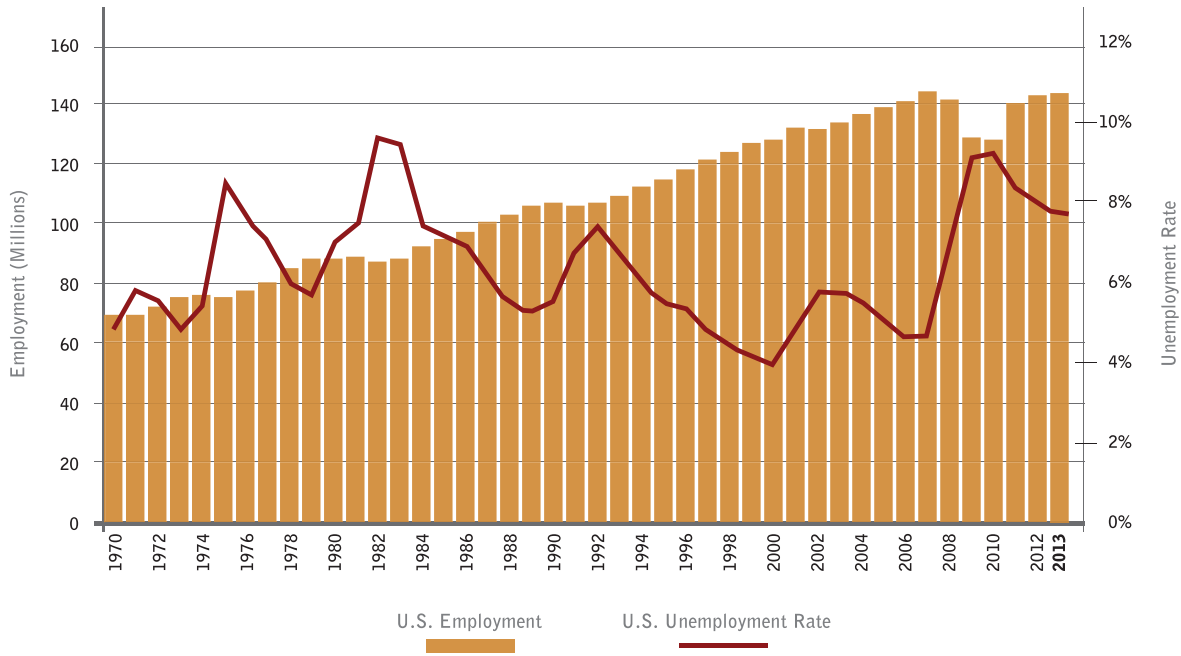
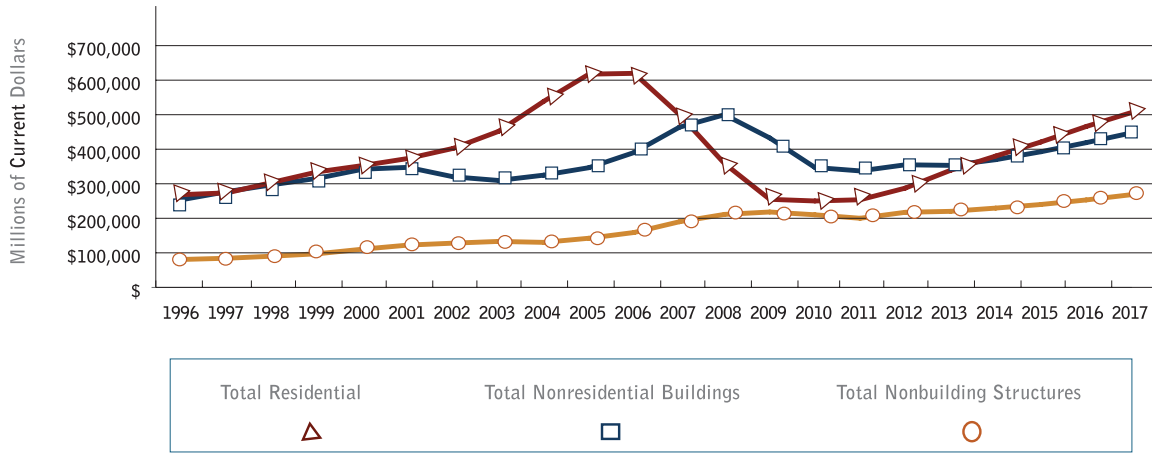
Construction Forecast

Our overall 2013 forecast for U.S. construction put in place has been revised down 3% from 2012 to 6% for 2013. The revised figure for total construction put in place for 2013 is \$909.6 billion, but we expect growth to return to 7% in 2014 and hit \$977.1 billion. While we expect residential to continue its growth trend—but not at the rate of 2013—growth in all other markets will slow in 2014. Nonetheless, construction is once again outpacing GDP growth and should continue to do so for the forecast period. Growth in lodging construction will moderate in 2013, but still increase by 15%, overall a long way from the boom years prerecession, but everything “looks like up” from where it was a few years ago. Transportation construction will continue to grow faster than overall construction, but may be slowed due to reduced government subsidies.

While there is no singular reason for the drop in these markets—each is evaluated on its own criteria—there are a few economic concerns that touch all of them. The first is the continued decline in public construction and expectations of more as the sequestration continues. Second, lenders are still tight with their lending criteria. Consumers are still cautious about increasing their debt load, and that includes their share of public debt with new bond issues for local municipalities.

Interest rates, while still low by historical standards, are creeping up for consumers. Most seem to have absorbed the new tax structures into their budgets, but are uncertain as to the cost of health care. The boom areas of shale oil exploration are helping tremendously in some regions, but haven’t flowed over to the rest of the nation. If, as many have suggested, energy prices in the U.S. continue to stay low and exports increase in the coming years, this will help fuel the economy in several ways; but that will take some more time. (At the time of writing this report, military intervention into Syria seems likely. We haven’t attempted to calculate the impact to oil from a potential conflict.) Still, the outlook is better than it has been for some years.

FMI Construction Put in Place, Estimated for the United States

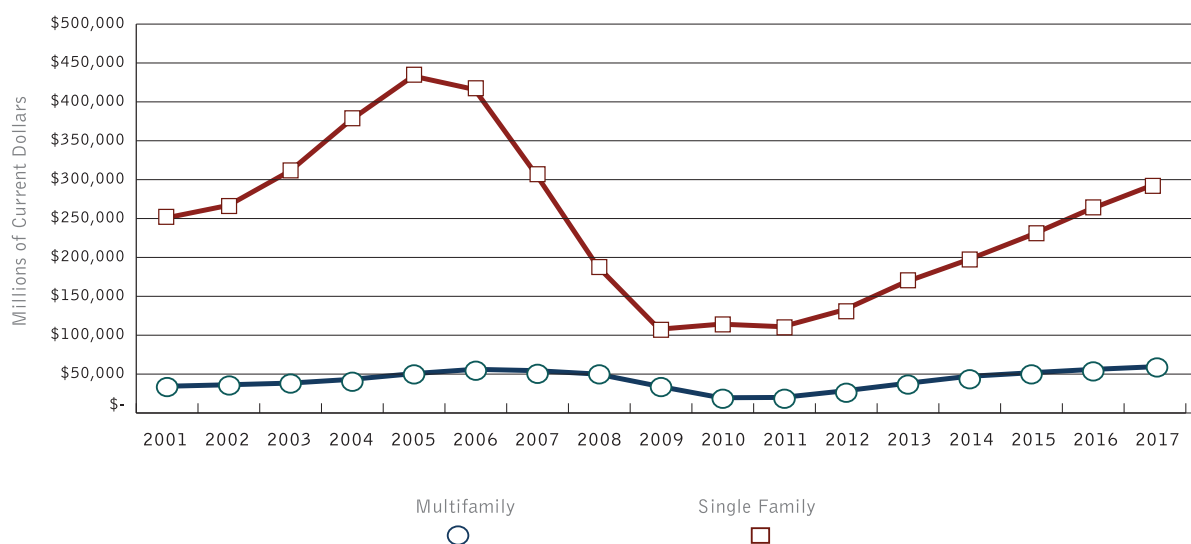


RESIDENTIAL

Even though there has been some backpedaling, growth in residential construction continues to show some traction. However, we expect the rapid growth to taper off to 12% in 2014. Increasing interest rates will keep any large bubbles from forming with single-family still increasing at 17% over 2013 and multifamily construction slowing from 36% growth in 2013 to 25% in 2014. Our total forecast for residential, including improvements, is \$379.6 billion, compared with \$338.2 billion for 2013. Total residential was \$619.8 billion in 2006 before the bubble burst. Now we are in catch-up mode for all of those people who have been putting off buying a home. We don't expect the growth spurt to continue at such high rates, so our forecasts for 2015 and 2016 are around 11%.

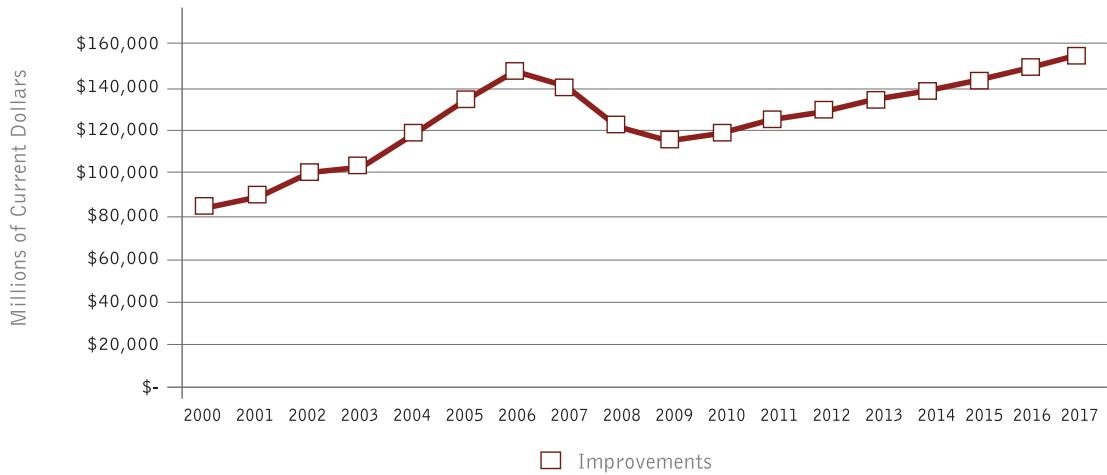
The numbers for housing starts are a little bit jagged. According to the latest report from the U.S. Census Bureau, "Privately owned housing starts in June were at a seasonally adjusted annual rate of 836,000. This is 9.9 percent ($\pm 11.4\%$) below the revised May estimate of 928,000, but is 10.4 percent ($\pm 14.9\%$) above the June 2012 rate of 757,000." We might expect this to be a jagged line over the year, partly seasonal and partly economics, as the government and other large businesses, like the giant IBM, continue to downsize. However, the shadow inventory of homes in foreclosure is diminishing, and that is helping to bring housing prices up. At the same time, housing inventory has increased to 21.4% for 2013, according to Calculated Risk (August 26, 2013.). This push/pull supply and demand will keep the rise of residential housing in check until wages catch up with price gains, which is happening for the high-wage earners, but not for the middle-class home buyers.

Residential Construction Put in Place



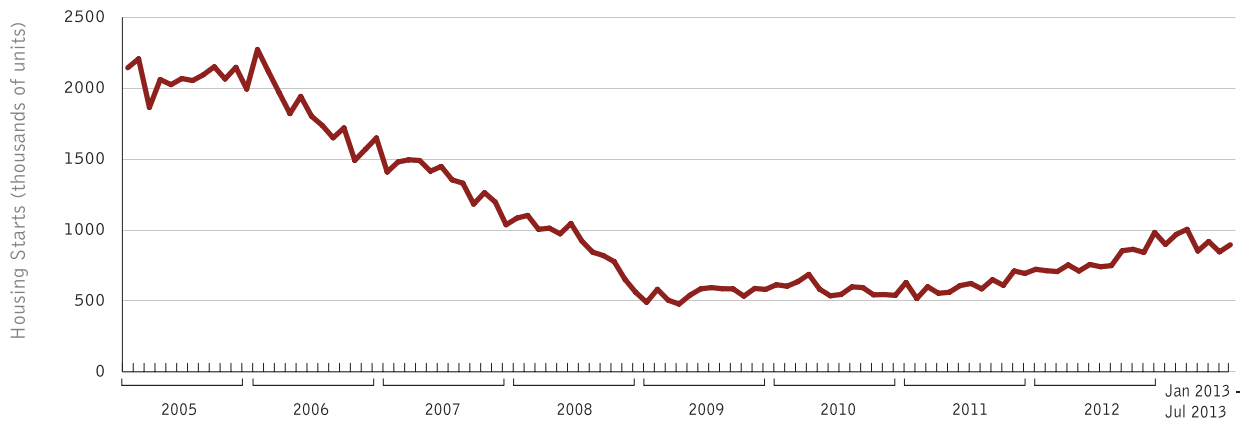
Residential Construction Improvements Put in Place

Forecast as of Q3 2013



New Privately Owned Housing Units Started

(Thousands of Units, Monthly, Seasonally Adjusted Annual Rate)



TRENDS:

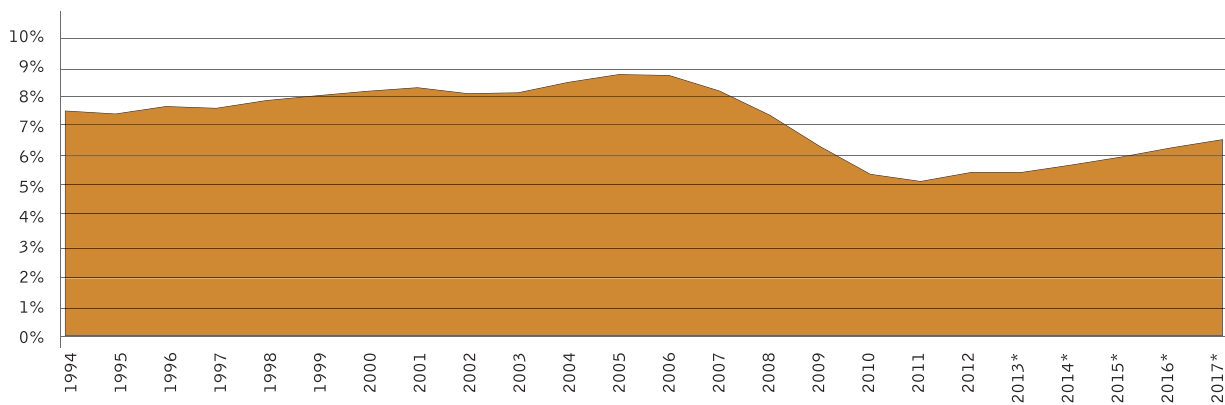
- According to CoreLogic, completed foreclosures were down 25% from July 2012 to July 2013. The total number of homes in foreclosure fell to 949,000, compared to 1.4 million a year ago.
- According to the August 27, 2013, report, “S&P Dow Jones Indices for its S&P/Case-Shiller Home Price Indices, the leading measure of U.S. home prices, showed that prices continue to increase. The National Index grew 7.1% in the second quarter and 10.1% over the last four quarters. The 10-City and 20-City Composites posted returns of 2.2% for June and 11.9% and 12.1% over 12 months.”
- According to the U.S. Census Bureau, “Privately owned housing units authorized by building permits in July were at a seasonally adjusted annual rate of 943,000. This is 2.7 percent (±0.8%) above the revised June rate of 918,000 and is 12.4 percent (±1.3%) above the July 2012 estimate of 839,000.” (August 2013)

DRIVERS:

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

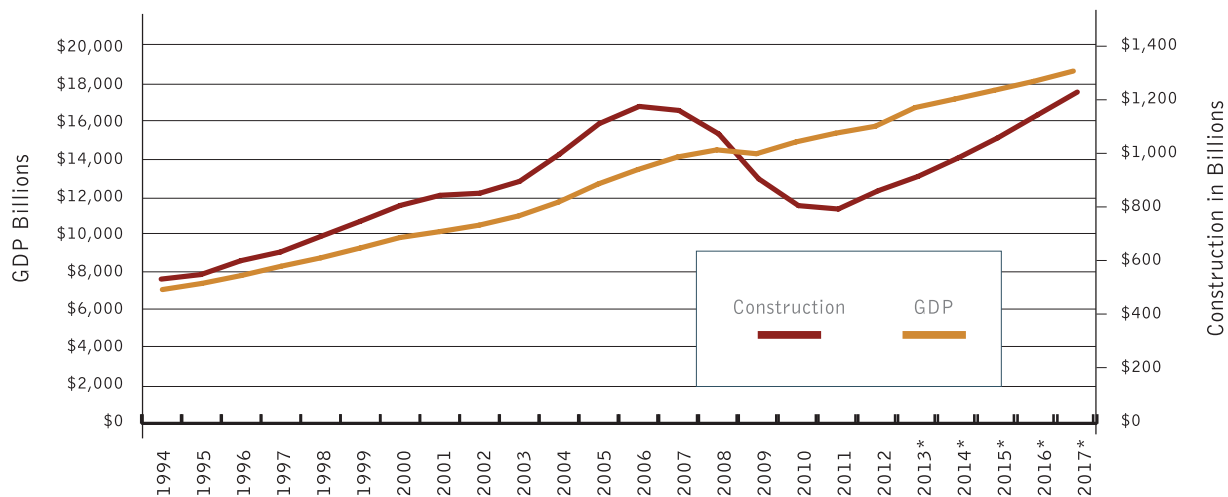
NONRESIDENTIAL BUILDINGS

Construction as a Percentage of GDP



*FMI Forecast

Construction Spending and Nominal GDP



*FMI Forecast

Value of Public Construction Put in Place (Seasonally Adjusted Annual Rate)

Millions of dollars. Details may not add up to totals due to rounding.

Value of Construction Put in Place — Seasonally Adjusted Annual Rate (Millions of Dollars) As of August 2012	Total Construction Put in Place (June 2012)	% of Total Construction Put in Place (Q1 2012)	Total Construction Put in Place (June 2013)	% of Total Construction Put in Place (Q1 2013)
*Public Construction	\$287,801	34%	\$261,109	29%
*State and Local	\$260,011	30%	\$237,600	26%
*Federal	\$27,790	3%	\$23,509	3%
FMI Forecast: Private Construction Put in Place	\$569,152	66%	\$648,534	71%
FMI Forecast: Construction Put in Place	\$856,953	100%	\$909,643	100%

* Source: U.S. Census Bureau Construction Spending

Lodging

Lodging construction came back to life in 2012. However, the pace of growth has slowed since last year; we have decreased our growth forecast from 15% for 2013 to 9% for 2014 to reach a total of \$14.3 billion. One of the key measures of the hospitality market is revenue per available room (RevPar), which is expected to be up 5.0% in 2013. Interest rates remain low for those looking to improve existing properties or build new, but lenders are still conservative. That means the high-end properties and major business destinations like New York City will have the best chance of expansion.

TRENDS:

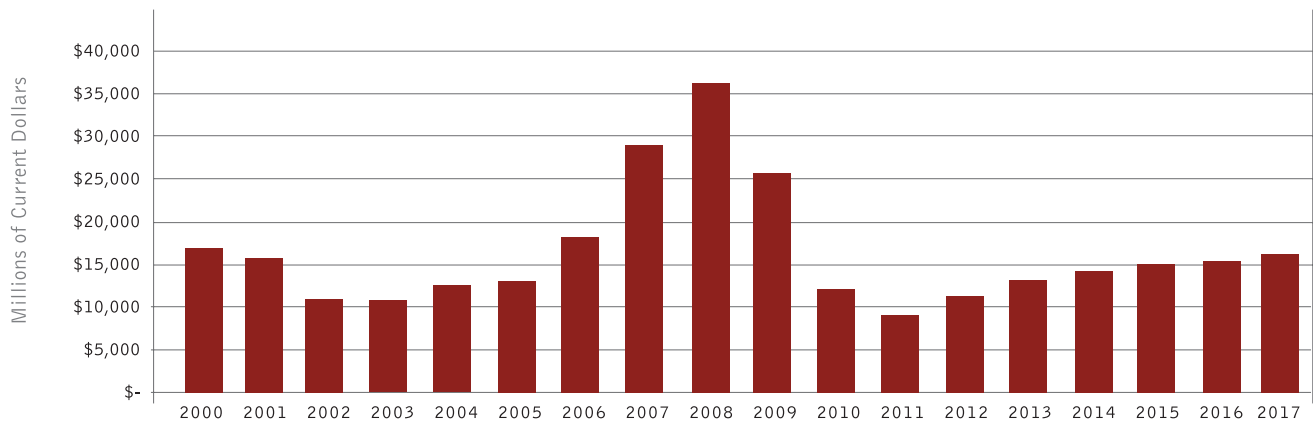
- According to a report by PriceWaterhouseCoopers (PwC), RevPar growth is expected to be 5.9% for 2013 overall. (PwC “Hospitality Directions U.S.” June 2013)
- The increase in average daily rates per room will continue to be modest as the business and vacation travelers shop for the best buy.
- Hotel developers will renovate before building new properties.
- As the economy continues to improve, business and vacation travelers are taking to the roads and airways, but this will be a slow transition.
- International travel is still steady due to the weak dollar.
- 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 Q3 2013



Office

Office construction is still fighting to gain traction as we forecast 2013 to be down 2% over 2012 but return to 4% growth in 2013. High unemployment rates and sharp downsizing in the financial sector took their toll on office vacancy rates since the recession. Now, companies enjoying higher profits are again looking at growth and expansion. New office space is being absorbed at a faster rate than existing office space with rent increases falling back somewhat. Reis Inc. reports that “Construction of new offices rebounded from a 14-year low in the first quarter, more than tripling to 7.59 million square feet (705,000 square meters)—or about two and a half times the size of New York’s World Trade Center.” (www.bloomberg.com/news/2013-07-08) So far, with the mild but jagged recovery in jobs, office jobs have been among the slowest to recover.

TRENDS:

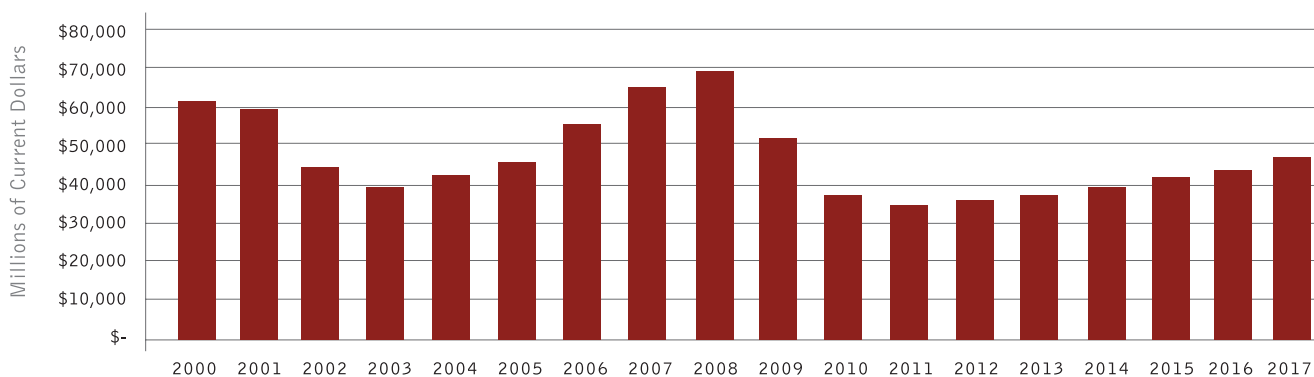
- According to the National Association of Realtors, “Vacancy rates in the office sector are expected to decline from a projected 15.7 percent in the third quarter to 15.5 percent in the third quarter of 2014.”
- Asking rents are increasing in major metros like New York City and Chicago, but are flat around most of the country. The trend toward new construction will focus on areas of high job growth in technical fields.

DRIVERS:

- 📉 Office vacancy rate
- 📈 Unemployment rate

Office Construction Put in Place

Forecast as of Q3 2013



Commercial

Our current forecast calls for only a 2% increase in 2013, growing to 5% in 2014. Retail sales as of June 2013 were up 5.7% over the previous year, but that isn't enough to start a significant upturn in new construction. New bricks and mortar retail space will continue to be slow to recover, as many companies turn to Internet mail-order sales. Commercial construction growth will remain slow, and not only will the markets recover from recession, but also different players will develop in the retail space in a highly competitive and global market.

TRENDS:

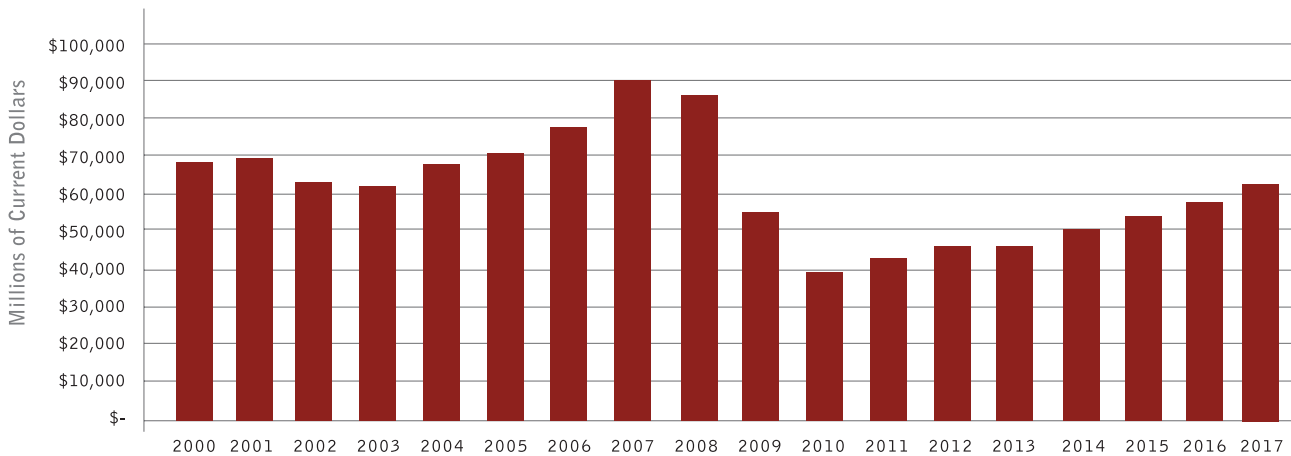
- According to the Department of Commerce, "Retail trade sales were up 0.6 percent ($\pm 0.5\%$) from May 2013 and 6.0 percent ($\pm 0.7\%$) above last year. Nonstore retailers were up 13.8%."
- Consumer confidence rose to 76.2 in July to 81.5 points and has been greater than 80 points for three months. (The Conference Board)
- Expect more rethinking of commercial construction space to accommodate smaller stores and to combine in-store sales with online shopping.
- Increased store remodeling could stall new construction.
- Look for increasing multiuse projects.

DRIVERS:

- 📈 Retail sales
- 📈 CPI
- 📈 Unemployment rate
- 📈 Income
- 📈 Housing starts
- 📈 Building permits

Commercial Construction Put in Place

Forecast as of Q3 2013



Health Care

Our health care construction forecast slipped 1% since last year, but it is still expected to grow 6% in 2014 to \$44.0 billion. Demographics continue to drive our forecast, and baby boomers are retiring in larger numbers and more likely to need greater health care. However, there is a larger elephant in the room that makes prediction a bit dicey right now. The Affordable Healthcare Act, Obamacare, is set to provide access to affordable health insurance for millions of Americans who are currently uninsured. This looks like a potentially sudden shock to the system, even though it has been coming for three years now, because many have ignored it or tried to legislate it away. The “2013 CFO Outlook, Survey of U.S. Senior Financial Executives” by Bank of America/Merrill Lynch cites 58% of CFOs as seeing rising health care costs as a chief concern. That response isn’t based solely on the coming changes due to Obamacare, but also the concern for the continually rising health care costs that Obamacare seeks to improve. Meantime, health care providers will continue to focus on reducing costs for new facilities through use of technology and fewer frills.

TRENDS:

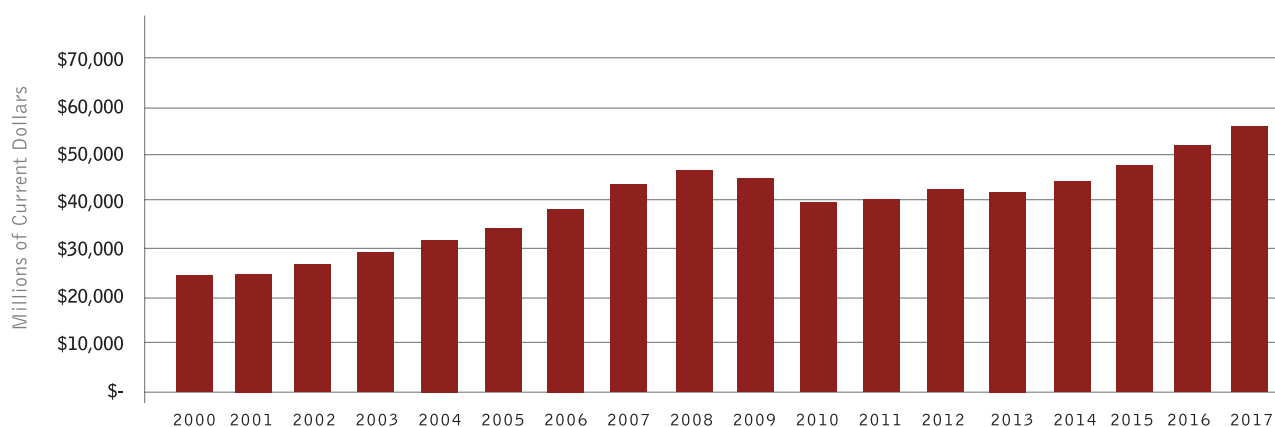
- One-year delay of implementation of the employer mandate portion of ACA (aka “Obamacare”)
- Hospital beds per 1,000 people trending downward
- Shorter patient stays
- Increasing use of growing number of ambulatory-care facilities
- Health care industry still not prepared for increased number of insured
- Trend toward rebuilding existing facilities to use modern hospital design and allow for greater use of technology
- Nontraditional funding sources for private nonprofit facilities
 - Private development and equity
 - Government or government-backed
 - Pension and life insurance companies

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 Q3 2013



Educational

Education construction will drop 4% for 2013. Due to budget cuts for government spending at all levels, schools will pick up slightly in 2014 to just 4% over 2013 levels at an annual rate for construction put in place of \$84.7 billion. The increases in residential construction and tax revenues for states and municipalities will help bring this market back in many areas of the country. At the same time, states and communities with decreasing populations, due to people moving to find better jobs, continue to try to consolidate older, underutilized schools. Private schools may continue to suffer as parents facing tight budgets avoid the higher costs. For higher education, students are becoming more discerning about their return on investment and taking a closer look at the growing number of degree programs offered online.

TRENDS:

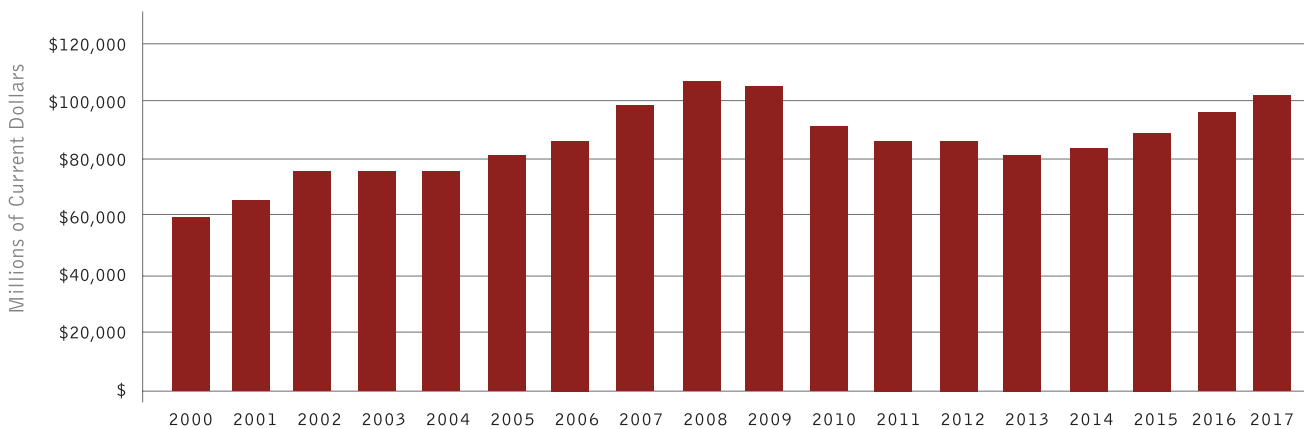
- Significantly less funding from states for K-12 schools
- Enrollment growth 2.5 million in the next four years
- New school designs more flexible for changing classrooms and greater use of natural light
- Greater attention to reducing energy use and employing green building technologies
- Harvard installs 600-kilowatt solar array
- Greater focus on safe schools after recent horrific shootings on campus

DRIVERS:

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

Educational Construction Put in Place

Forecast as of Q3 2013



Religious

Religious construction has been a shrinking market for more than a decade. Our forecast calls for another lean year in 2014, growing just 3% after dropping 5% in 2013. What growth we see will likely be renovation, as newly formed congregations move into vacated retail space or reoccupy church buildings abandoned by other faiths. As the housing market slowly continues a growth trend in the coming years, we may also see more expendable income for contributing to new community houses of worship. However, like retail, it is possible that more religious congregations will meet online or use other forms of communication.

TRENDS:

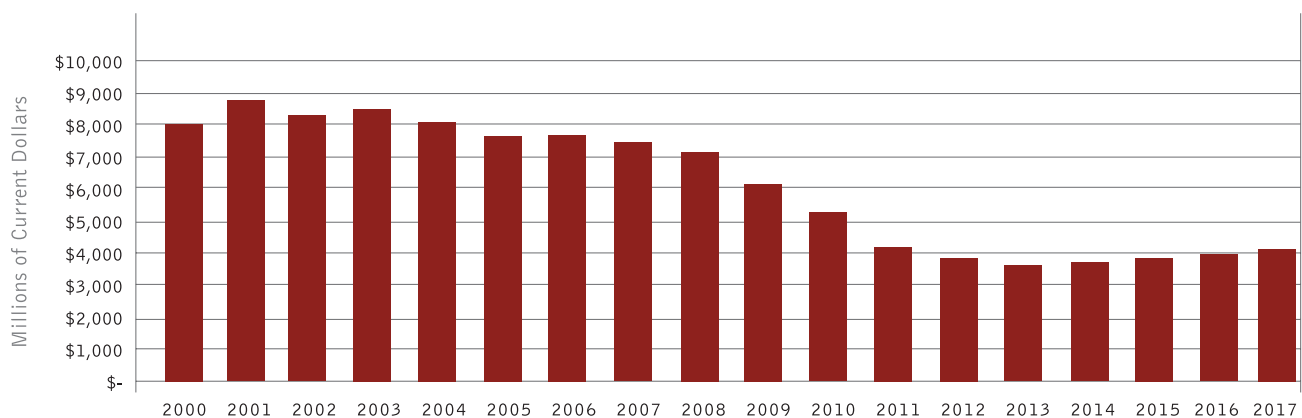
- The lending environment continues to be a challenge for many congregations.
- Establishing a capital campaign is becoming increasingly common.
- Many churches are seeing tremendous declines in contributions and tithes.
- More parishioners are relying on their houses of worship to provide guidance and assistance, further stretching thin resources.
- New methods for charitable giving, including online giving and donation collections, are empowering religious organizations.
- Improved space utilization and additions are taking the forefront, as new construction is increasingly not an option.
- Churches are becoming smarter about attracting parishioners who are drawn in by facilities and the church building itself.
- Energy efficiency, green sustainability and long-lasting quality are becoming top features many congregations want in worship houses.

DRIVERS:

- ⬆ GDP
- ⬆ Population
- ⬆ Income
- ⬆ Personal savings rate

Religious Construction Put in Place

Forecast as of Q3 2013



Public Safety

Our forecast for public safety continues to be slow, dropping 4% in 2013 and expecting to regain just 3% in 2014. A new report from the Congressional Research Services states, "The growing prison population is taking a toll on the infrastructure of the federal prison system. The BOP reports that it has a backlog of 154 modernization and repair projects with an approximate cost of \$349 million for FY2012." (The Federal Prison Population Buildup: Overview, Policy Changes, Issues and Options, January 22, 2013) According to the report, "[The] federal prison system was 39% over its rated capacity in FY2011, but high- and medium-security male facilities were operating at 51% and 55%, respectively, over rated capacity." However, while not exactly in the same category, the potential spending of more than \$60 billion in border security, now in the immigration bill, could change things if it becomes law.

TRENDS:

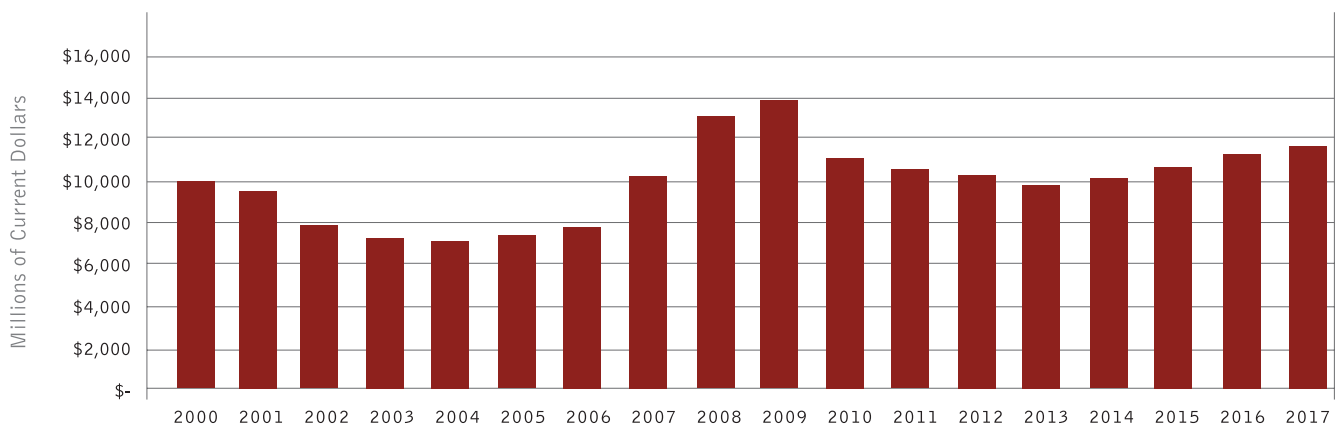
- "Over the past 30 years, according to a new report by the Congressional Research Service (CRS), the federal prison population has jumped from 25,000 to 219,000 inmates, an increase of nearly 790 percent. Swollen by such figures, for years the United States has incarcerated far more people than any other country, today imprisoning some 716 people out of every 100,000." (www.ipsnews.net/2013/02/u-s-prison-population-seeing-unprecedented-increase/)
- The Pentagon is seeking a "\$150 million overhaul of the U.S. detention facility at Guantanamo Bay, Cuba," according to a report at WorldNews on NBC News.com.
- Adult correctional facilities' population decreased 1.3% in 2010.
- Privately managed secure facilities are increasing.
- Private corporations now operate 5% of the 5,000 prisons and jails in the U.S. The private prison industry is growing at a rate of 30% per year.
- Government appointed its first chief greening officer (under GSA) to oversee aggressive pursuit of sustainable practices in government buildings.
- CM-at-risk or design-build arrangements will increase.
- P3s overcome shortfalls in public financing.

DRIVERS:

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

Public Safety Construction Put in Place

Forecast as of Q3 2013



Amusement and Recreation

Amusement and recreation is a competitive business, not just for contractors, but for the cities and teams involved. Given the belt-tightening attitude across the country right now, it will likely be much more difficult to get funding from taxes and municipalities to build new stadiums in the near future. We have dropped our forecast for year-end 2013 to -7% and expect only a 2% recovery in 2014. It hasn't happened in America, but Brazil's latest protest over rising costs to average citizens for sporting events that benefit the rich may spill over around the globe.

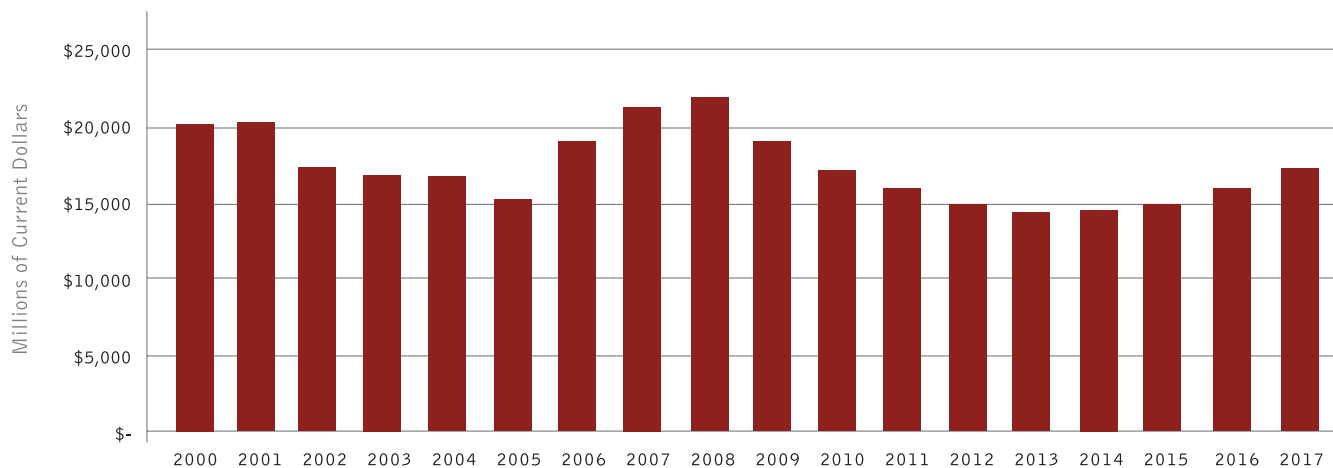
TRENDS:

- The San Francisco 49ers have recently broken ground on their new \$850 million stadium.
- Minnesota Vikings \$1.1 billion project has been approved by the state senate.
- Casino plans are underway in a number of states, including New York, Pennsylvania, Maryland, Florida and Ohio, with some investors coming from offshore.
- Public/private venture planned for the campus of UNLV includes a 50,000-seat domed stadium but still waiting approvals and taxpayer votes on plan to allow the project to be tax-free.
- Competition in the gaming sector will draw business away from some existing gambling centers, such as Atlantic City, as well as other public arenas.

DRIVERS:

- 📈 Income
- 📈 Personal savings rate
- 📈 Unemployment rate

Amusement and Recreation Construction Put in Place Forecast as of Q3 2013



Transportation

Transportation markets for design and construction continued to struggle against the headwinds of reduced funding and poor budgetary conditions in 2013. Design and construction markets in transportation infrastructure should continue to grow in 2014. The economy should continue to grow, albeit slowly, in 2013, and state budget conditions should continue to improve. As a result, FMI forecasts construction to increase 8.0 percent in 2013 and 7% in 2014.

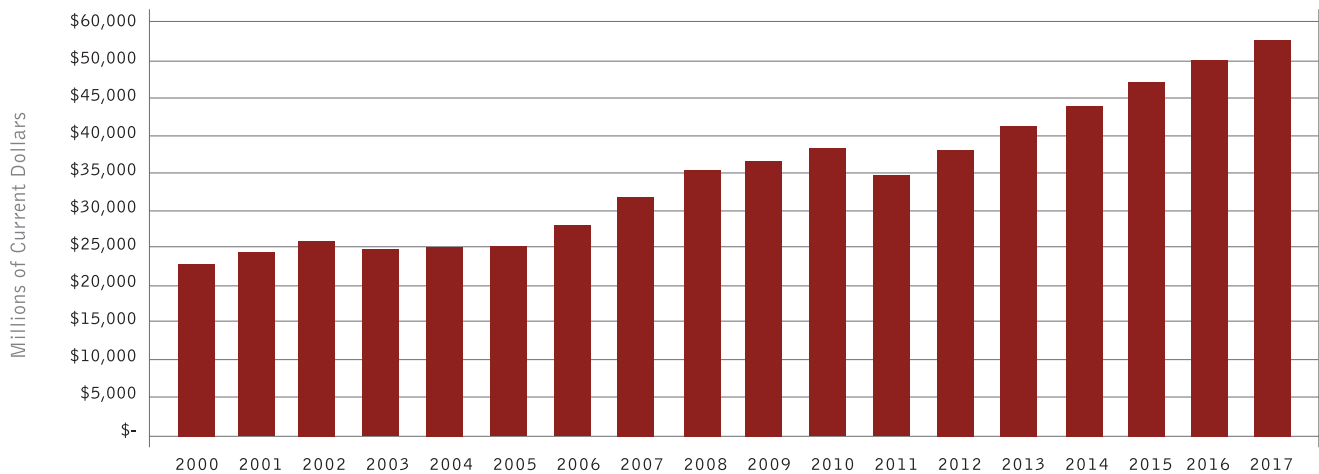
TRENDS:

- According to the American Association of Railroads, intermodal transportation set a “new July record for average weekly volume and carload volume, decreasing slightly overall compared with July 2012. Intermodal traffic in July totaled 1,218,625 containers and trailers, up 2.5 percent (29,328 units) compared to July 2012. The weekly average of 243,725 units in July 2013 was the highest for any July in history. Carloads originated in July totaled 1,384,742, down 0.5 percent (7,532 carloads) compared with the same month last year.”
- Railcar loads for petroleum and petroleum products increased 19% over July 2012.
- The FAA Modernization and Reform Act will provide \$63.6 billion for the agency’s programs between 2012 to 2015.
- By 2021, more than 1 billion people a year will take to the air.
- High-speed rail is slow to get projects off the ground due to state funding and political resistance.
- Growth in container ports is recovering from the recession.
- Intermodal transportation will be the focus of new projects.

DRIVERS:

- 📈 Population
- 📈 Government spending
- 📈 Transportation funding

Transportation Construction Put in Place Forecast as of Q3 2013



Communication

After a drop of 2% for 2013, we expect communication construction to grow 4% in 2014 to an annual total for construction put in place of 17.8 billion. As data centers continue to proliferate, there has been more attention on their insatiable need for energy. That will stimulate more energy-conscious facilities in the future. Communications security, especially over the Web, is a growing concern for businesses as well as for government, with the focus being on an increasing likelihood of attacks by terrorists and foreign governments. While one might think we are approaching market saturation for smartphones and wireless communications, the market keeps going up as more consumers hook up several devices and look for constant, high-speed connectivity.

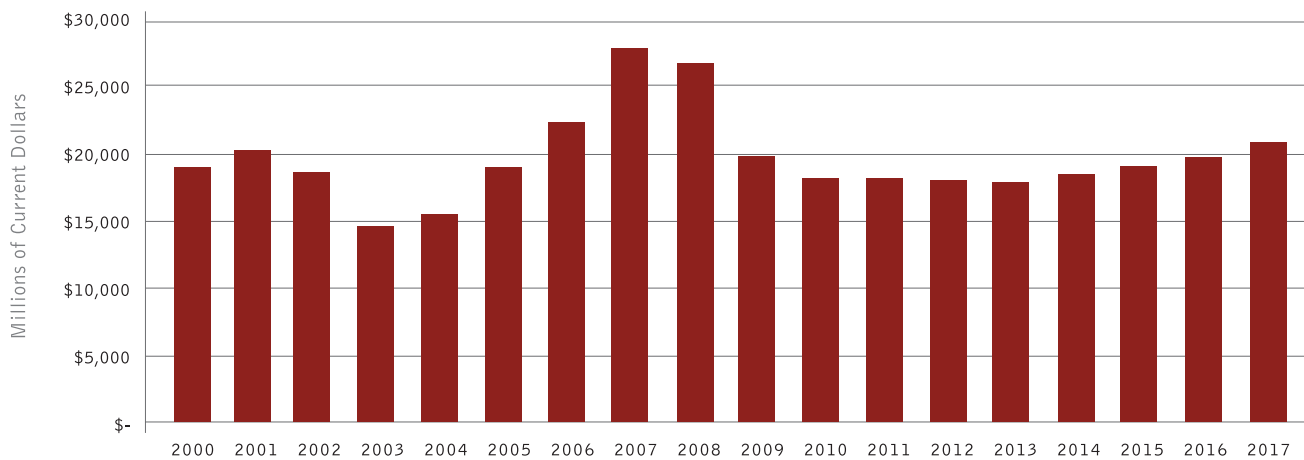
TRENDS:

- "Mini towers" for increasing coverage and spectrum will increase rapidly in the next five years.
- Wireless technology is the fastest-growing area as telecoms roll out more 4G technology with smartphones and tablets.
- Data security is critical for large businesses and governments in the face of potential disasters and threats from hackers and foreign enemies.

DRIVERS:

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

Communication Construction Put in Place Forecast as of Q3 2013



Manufacturing

Manufacturing construction increased 18% in 2012, but the total is expected to drop 2% by year-end 2013 before returning to 4% growth in 2014. Due to reduction in energy costs in the U.S. relative to other countries around the globe and the increase in transportation costs, manufacturing will continue to reconsider operations in the U.S. or returning to the U.S. The resurgence of the automotive industry is a big boost to manufacturing as is the continuing exploration and mining for shale oil and gas. This resurgence in manufacturing will be slow, but any improvement will be felt throughout the economy.

TRENDS:

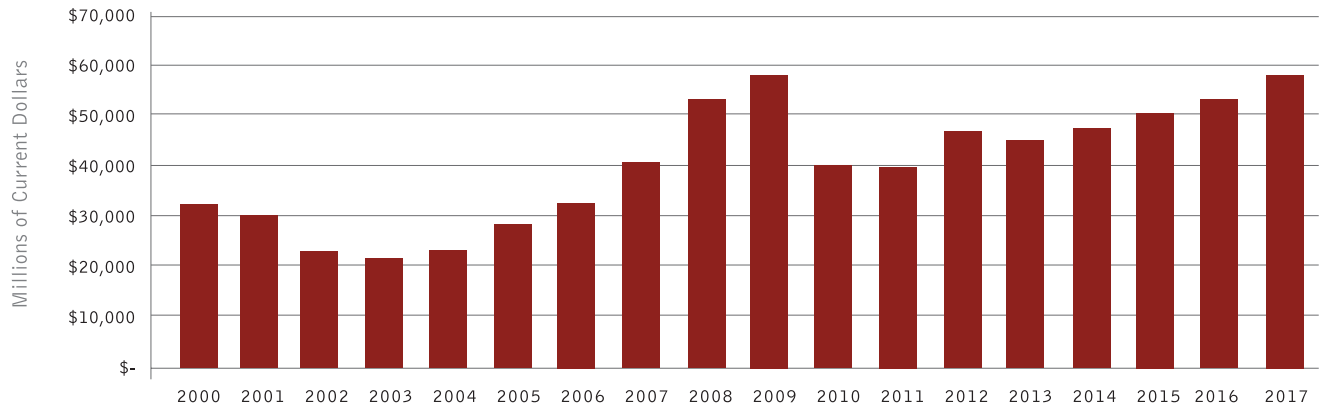
- The Census Bureau reports, "U.S. manufacturing corporations first quarter 2013 unadjusted after-tax profits totaled \$151.2 billion, up \$6.5(±0.4) billion from the after-tax profits of \$144.7 billion recorded in the first quarter of 2012, and up \$26.9 (±0.2) billion from the after-tax profits of \$124.3 billion recorded in the fourth quarter of 2012.
- According to a Federal Reserve release (June 14, 2013), "In May, manufacturing production rose 0.1 percent after falling in each of the previous two months, and the output at mines increased 0.7 percent. The gains in manufacturing and mining were offset by a decrease of 1.8 percent in the output of utilities. At 98.7 percent of its 2007 average, total industrial production in May was 1.6 percent above its year-earlier level." (U.S. Census Bureau release June 10, 2013)
- Capacity utilization slipped 0.1% to 77.6 percent, "2.6 percentage points below its long-run (1972–2012) average." (ibid)
- "Reshoring of manufacturing" is happening slowly, in part due to availability of lower energy costs.

DRIVERS:

- ⬆️ ISM
- ⬆️ Industrial production (slightly up)
- ⬆️ Capacity utilization (slightly up)
- ⬆️ Factory orders
- ⬆️ Durable goods orders
- ⬆️ Manufacturing inventories (slightly up)

Manufacturing Construction Put in Place

Forecast as of Q3 2013



NONBUILDING STRUCTURES

Power

Construction for the power market grew 25% in 2012, but has slowed to just 6% in 2013. For 2015 through 2017, we expect 7% to 9% growth. The power market offers a relative bright spot compared to other infrastructure markets, such as transportation and water. The shale story continues to unfold and change the nation's energy landscape, creating design and construction opportunities across the energy supply chain. According to the Interstate Natural Gas Association of America, the U.S. and Canada need 28,900 to 61,600 miles of additional pipeline by 2030. The U.S. Energy Information Administration forecasts that natural-gas-fired plants will account for 63 percent of capacity additions from 2012 to 2040. In addition to shale, investment in power delivery systems continues to grow with no signs of stopping in the nearterm to midterm. The primary wild card in the power market is continuing uncertainty around EPA regulations on air and water quality.

Despite regulatory uncertainty, the power market should continue to experience robust growth in 2014. Shale-related activity and power delivery opportunities should continue to drive the market.

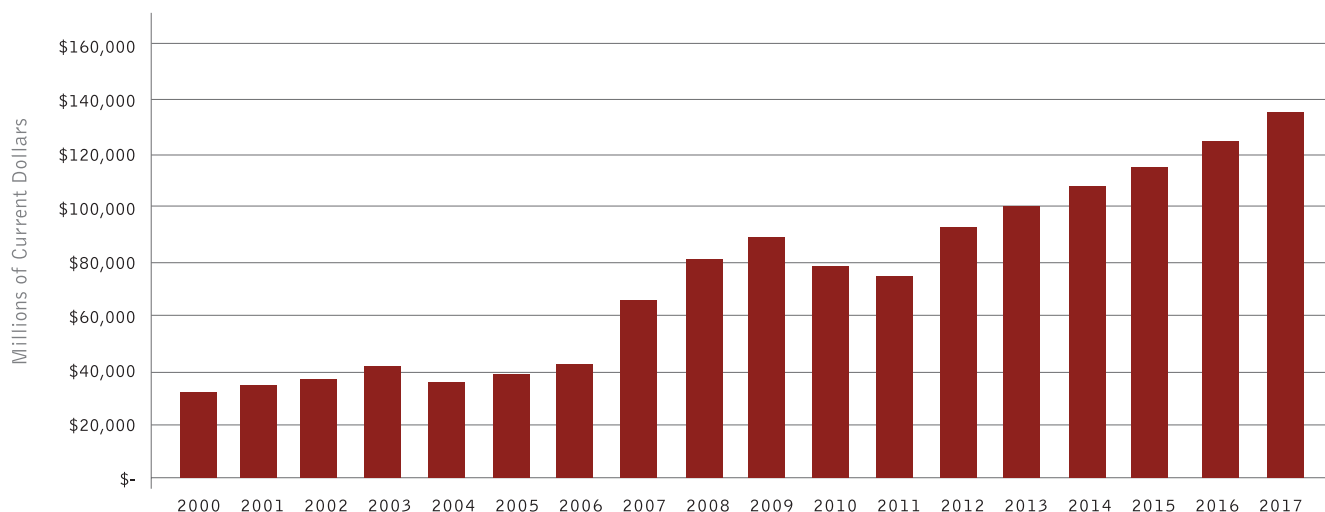
TRENDS:

- According to the “Annual Energy Outlook 2013” from the U.S. Energy Information Administration, “The advent and continuing improvement of advanced crude oil production technologies continue to lift projected domestic supply. Domestic production of crude oil increases sharply in AEO2013, with annual growth averaging 234,000 barrels per day (bpd) through 2019, when production reaches 7.5 million bpd.”
- U.S. Army Corps of Engineers has a proposal out for \$7 billion in locally generated renewable energy through power purchase agreements. The \$7 billion capacity would be expended for the purchase of energy over a period of 30 years or less from renewable energy plants that are constructed and operated by contractors using private-sector financing.” (Renewablesbiz.com, Bill Opalka, Aug. 15, 2012)
- Electricity demand slowing due to appliances that are more efficient.

DRIVERS:

- 📍 Industrial Production
- 📍 Population
- 📍 Nonresidential Structure Investment

Power Construction Put in Place Forecast as of Q3 2013



Highway and Street

The passage of MAP-21 ended the string of short-term extensions to SAFETEA-LU, which expired in September 2009, but did little to improve the outlook for the transportation infrastructure market. The new bill maintained funding at 2012 levels and will provide clarity on funding levels through FY2014, at which point Congress could again revert to a short-term approach. While MAP-21 is a step in the right direction, the federal funding picture remains bleak overall. States that are in a position to do so are taking action to address their own transportation funding shortfalls. As a group, however, many are just now recovering from the significant budget shortfalls they faced in the wake of the recession and are not in a position to move forward without the help.

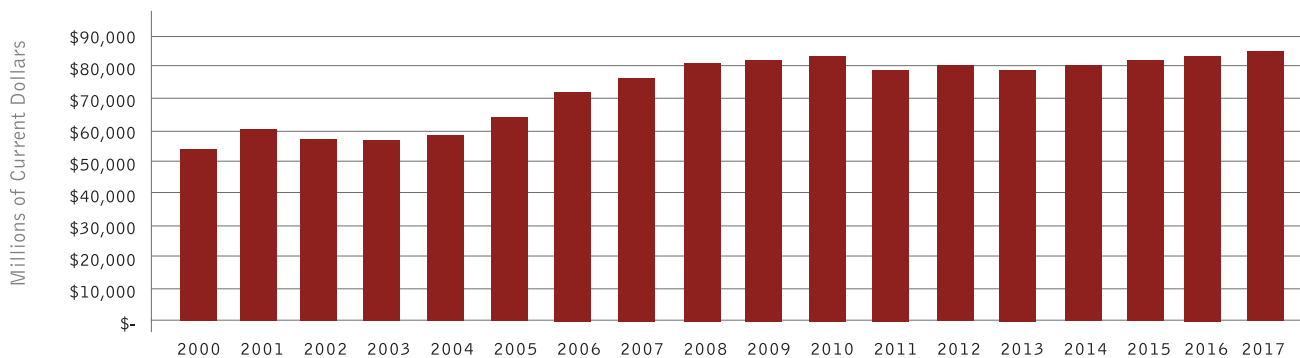
TRENDS:

- Passage of MAP-21 calls for \$37,476,819,674 for fiscal year 2013 and \$37,798,000,000 for fiscal year 2014 for the Federal-Aid Highway Program. It also calls for \$750 million for fiscal year 2013 and \$1 billion for fiscal year 2014 under the Transportation Infrastructure Finance and Innovation Program (TIFIA loans).
- State budgets will continue to be strained, and it will be difficult to get larger projects off the ground.
- According to ARTBA, "Since 1989, 24 states and D.C. have used P3s to build or finance 96 transportation projects valued at \$54.3 billion. Over half of the projects, 65%, have occurred in eight states. Traditionally, P3s have accounted for two to five percent of annual market activity." ("U.S. Transportation Construction Market Forecast 2013")

DRIVERS:

- 📍 Population
- 📍 Government spending
- 📍 Nonresidential structure investment

Highway and Street Construction Put in Place Forecast as of Q3 2013



Sewage and Waste Disposal

Construction for sewage and waste disposal is forecast to be down 5% in 2013; however, we expect a 2% improvement in 2014 to around \$21.3 billion. The ability to fund necessary water infrastructure improvements is central to the decline as many municipal water systems still depend on the tax base for funding.

TRENDS:

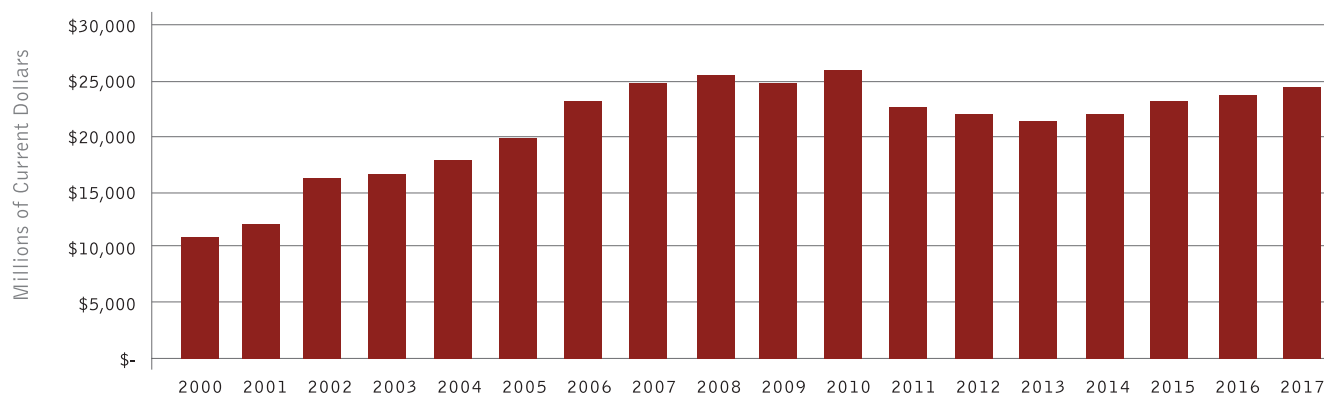
- Growth, driven by aging infrastructure and regulation, is on the horizon, but the length of the horizon is still unknown. Slow water infrastructure markets in the aftermath of the recession continue to build the backlog of necessary work as existing infrastructure ages.
- In need of replacement and 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 regions.
- The Clean Water State Revolving Fund (CWSRF) programs have provided more than \$5 billion annually in recent years to fund water-quality protection projects.

DRIVERS:

- ⬆ Population
- ⬆ Industrial production
- ⬆ Government spending

Sewage and Waste Construction Put in Place

Forecast as of Q3 2013



Water Supply

Construction for water supply projects will improve 5% in 2013 after dropping 7% in 2012. Experts agree that the nation's infrastructure is not getting enough attention and, more importantly, funding. After spending years recovering from significant budget shortfalls, state governments had to look elsewhere for support in 2012 as the federal government begins to address its own fiscal woes. In 2012, \$36.5 billion of tax-exempt municipal bonds were used at the state and local levels, to address water infrastructure needs, which represents a 33 percent increase over 2011. Additionally, a number of states are making changes to tax systems in an attempt to find the right balance between growth and taxation. In March 2013, the Senate Environmental and Public Works Committee unanimously approved a Water Resources Development Act, including a measure to create the Water Infrastructure Finance and Innovation Act (WIFIA). WIFIA would provide \$50 million per year from 2014 to 2018 to help fund large-scale water infrastructure projects.

TRENDS:

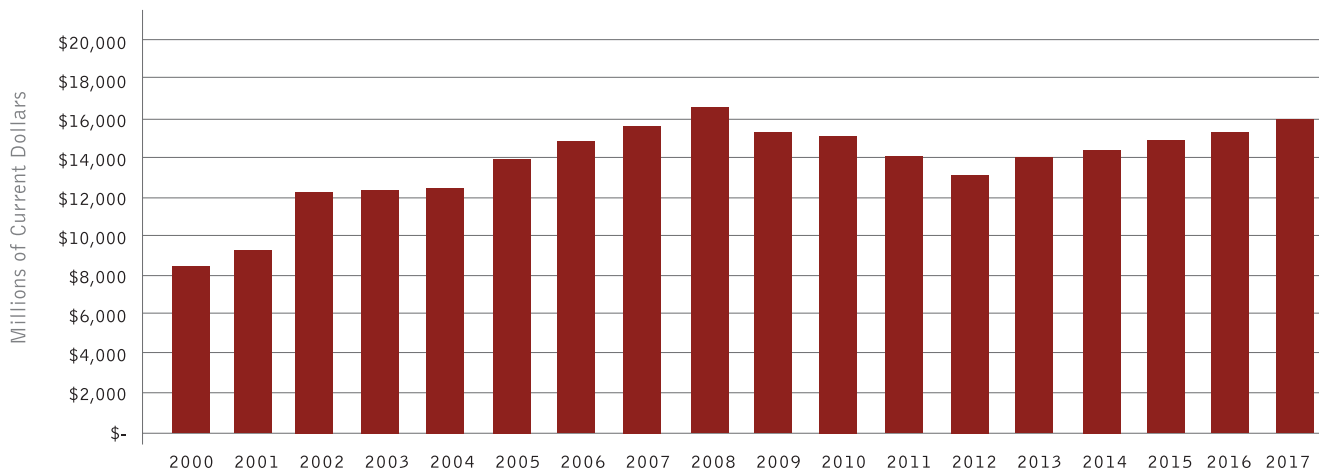
- Strength in the mining sector creates a tremendous amount of water infrastructure work throughout North America and abroad. Strength in commodity markets continues to drive increased levels of mining activity through the development of new mines and redevelopment of existing mining assets. Heightened mining activity leads to increased demand for related infrastructure, including water.
- Federal assistance for the safe drinking water State Revolving Fund (SRF) in the 11-year period between 1997 and 2008 totaled \$9.5 billion, just slightly more than the investment gap for each of those years.
- Green construction practices, such as controlling runoff to help increase groundwater, will become the norm for improvements and new construction.
- Water for shale oil and gas mining will increase demand in selected areas of the country.

DRIVERS:

- 📈 Population
- 📈 Industrial Production
- 📈 Government Spending

Water Supply Construction Put in Place

Forecast as of Q3 2013



Conservation and Development

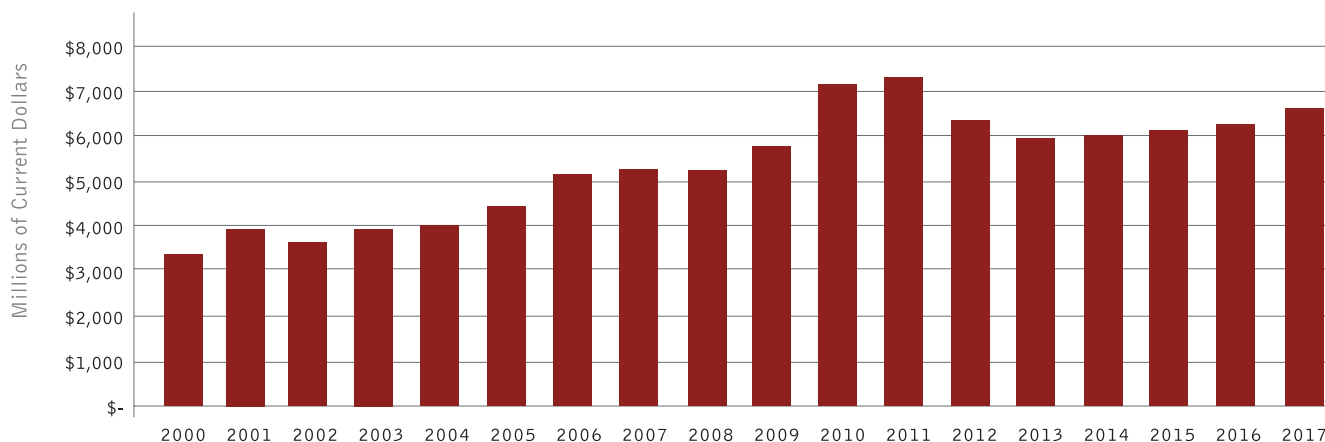
After dropping sharply in 2012 by 16% and another 7% in 2013, we expect only a 1%, or just shy of \$6 billion, in total construction put in place for 2014. The environmental market continues to be a tale of two markets in 2013. The industrial market continues to flourish behind the strength in the natural resource sector. In addition, the low cost of energy is driving an onshoring phenomenon in other industrial sectors, such as chemicals and automotive. Conversely, DOD and DOE markets continue to struggle against the headwinds of budget constraints. The two-speed market is expected to continue as industrial market strength should increase the size of the overall environmental market, albeit much more slowly as public markets contract.

DRIVERS:

- 📈 Population
- 📉 Government spending

Conservation and Development Construction Put in Place

Forecast as of Q3 2013



Construction Put in Place

Millions of Current Dollars

3rd Quarter 2013 Forecast (Based on 2nd Quarter 2013 Actuals)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
RESIDENTIAL BUILDINGS													
Single-Family	434,912	417,518	306,990	187,648	106,398	112,965	109,620	131,380	167,626	196,016	227,221	262,082	292,836
Multifamily	48,699	54,324	52,570	48,083	32,231	17,405	17,821	26,293	35,889	45,012	49,678	54,018	57,505
Improvements*	133,896	147,973	140,909	122,015	115,301	118,744	125,217	128,850	134,648	138,571	143,552	149,283	155,601
Total Residential	617,507	619,814	500,468	357,746	253,930	249,113	252,658	286,523	338,163	379,599	420,452	465,383	505,941
NONRESIDENTIAL BUILDINGS													
Lodging	12,840	18,139	28,706	35,806	25,499	11,635	9,129	11,423	13,135	14,301	15,323	16,020	16,610
Office	45,763	54,187	65,259	68,563	51,908	37,850	36,011	38,433	37,481	38,942	40,885	43,399	45,584
Commercial	70,242	76,713	89,684	86,212	54,069	39,450	43,386	46,303	47,256	49,691	53,773	57,942	62,041
Health Care	34,430	38,472	43,766	46,902	44,845	39,344	40,204	41,797	41,581	44,003	47,533	51,749	56,637
Educational	79,687	84,928	96,758	104,890	103,202	88,405	84,985	84,618	81,333	84,704	89,245	95,066	102,083
Religious	7,735	7,749	7,540	7,225	6,192	5,288	4,239	3,768	3,573	3,681	3,780	3,929	4,118
Public Safety	7,314	7,768	10,201	13,083	13,787	11,153	10,407	10,295	9,833	10,097	10,599	11,172	11,635
Amusement and Recreation	15,236	19,033	21,212	21,829	19,404	16,943	15,995	14,977	13,979	14,271	15,091	16,083	17,227
Transportation	25,052	27,964	31,877	35,471	36,701	38,340	34,737	38,210	41,250	43,990	47,272	50,174	52,861
Communication	18,906	22,219	27,580	26,487	19,753	17,730	17,685	17,528	17,214	17,856	18,699	19,808	20,975
Manufacturing	28,568	32,677	40,633	53,234	56,836	40,350	39,660	46,850	45,874	47,533	49,901	53,111	57,017
Total Nonresidential Buildings	345,773	389,849	463,216	499,702	432,196	346,488	336,438	354,202	352,509	369,070	392,102	418,454	446,789
NONBUILDING STRUCTURES													
Power	38,371	42,244	66,055	81,075	88,861	77,945	75,185	94,068	99,924	106,707	114,794	124,783	136,334
Highway and Street	64,139	72,040	76,682	81,361	82,166	82,529	79,322	80,517	78,242	80,085	81,167	82,595	84,354
Sewage and Waste Disposal	19,867	23,186	24,872	25,696	24,830	25,991	22,710	22,066	20,950	21,275	21,987	22,990	24,209
Water Supply	14,028	14,960	15,798	16,752	15,471	15,322	14,163	13,227	13,943	14,396	14,844	15,414	16,007
Conservation and Development	4,453	5,130	5,260	5,234	5,750	7,172	7,538	6,350	5,911	5,973	6,087	6,298	6,507
Total Nonbuilding Structures	140,858	157,560	188,667	210,118	217,078	208,959	198,918	216,228	218,971	228,435	238,879	252,080	267,411
Total Put in Place	1,104,138	1,167,223	1,152,351	1,067,566	903,204	804,560	788,014	856,953	909,643	977,105	1,051,433	1,135,918	1,220,142

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

Change From Prior Year - Current Dollar Basis

3rd Quarter 2013 Forecast (Based on 2nd Quarter 2013 Actuals)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
RESIDENTIAL BUILDINGS													
Single-Family	15%	-4%	-26%	-39%	-43%	6%	-3%	20%	28%	17%	16%	15%	12%
Multifamily	18%	12%	-3%	-9%	-33%	-46%	2%	48%	36%	25%	10%	9%	6%
Improvements*	13%	11%	-5%	-13%	-6%	3%	5%	3%	4%	3%	4%	4%	4%
Total Residential	15%	0%	-19%	-29%	-29%	-2%	1%	13%	18%	12%	11%	11%	9%
NONRESIDENTIAL BUILDINGS													
Lodging	4%	41%	58%	25%	-29%	-54%	-22%	25%	15%	9%	7%	5%	4%
Office	8%	18%	20%	5%	-24%	-27%	-5%	7%	-2%	4%	5%	6%	5%
Commercial	5%	9%	17%	-4%	-37%	-27%	10%	7%	2%	5%	8%	8%	7%
Health Care	7%	12%	14%	7%	-4%	-12%	2%	4%	-1%	6%	8%	9%	9%
Educational	7%	7%	14%	8%	-2%	-14%	-4%	0%	-4%	4%	5%	7%	7%
Religious	-5%	0%	-3%	-4%	-14%	-15%	-20%	-11%	-5%	3%	3%	4%	5%
Public Safety	4%	6%	31%	28%	5%	-19%	-7%	-1%	-4%	3%	5%	5%	4%
Amusement and Recreation	-9%	25%	11%	3%	-11%	-13%	-6%	-6%	-7%	2%	6%	7%	7%
Transportation	0%	12%	14%	11%	3%	4%	-9%	10%	8%	7%	7%	6%	5%
Communication	22%	18%	24%	-4%	-25%	-10%	0%	-1%	-2%	4%	5%	6%	6%
Manufacturing	22%	14%	24%	31%	7%	-29%	-2%	18%	-2%	4%	5%	6%	7%
Total Nonresidential Buildings	7%	13%	19%	8%	-14%	-20%	-3%	5%	0%	5%	6%	7%	7%
NONBUILDING STRUCTURES													
Power	8%	10%	56%	23%	10%	-12%	-4%	25%	6%	7%	8%	9%	9%
Highway and Street	9%	12%	6%	6%	1%	0%	-4%	2%	-3%	2%	1%	2%	2%
Sewage and Waste Disposal	11%	17%	7%	3%	-3%	5%	-13%	-3%	-5%	2%	3%	5%	5%
Water Supply	11%	7%	6%	6%	-8%	-1%	-8%	-7%	5%	3%	3%	4%	4%
Conservation and Development	10%	15%	3%	0%	10%	25%	5%	-16%	-7%	1%	2%	3%	3%
Total Nonbuilding Structures	9%	12%	20%	11%	3%	-4%	-5%	9%	1%	4%	5%	6%	6%
Total Put in Place	11%	6%	-1%	-7%	-15%	-11%	-2%	9%	6%	7%	8%	8%	7%

Benefits

A Construction Market Forecast From FMI's Research Services Group Can:

- Supply the market-oriented, economy-driven dimension essential for preparing, implementing and monitoring strategic plans.
- Be a significant aid in defining, targeting, implementing and monitoring other critical corporate decisions, such as long- and short-term sales goals, or redirecting resources (i.e., on a geographic or a product-line basis).
- Provide the basis for estimating submarkets.
- Provide the basis for comparing performance among markets.
- Provide the basis for identifying activities that are beneficial or detrimental to performance.

Features

Each Standard Construction Market Forecast:

- Details construction put in place in three residential building, 11 nonresidential building and five nonbuilding structure categories. It covers the current year, eight previous years and five forecast years. It is available for any county in the U.S. or any combination of counties, metropolitan statistical areas, states, regions, etc.
- Includes both construction values and annual percentage changes. Delivery time depends on the size of the request but is usually only a few days. It can be delivered in printed or electronic form and in most major text or spreadsheet formats. Graphs can be provided at additional cost.

Basis

- Historical information in FMI's standard Construction Market Forecast is based on building permits and construction put in place data as provided by the U.S. Commerce Department. Forecasts are based on econometric and demographic relationships developed by FMI, on information from specific projects gathered from trade sources, and on FMI's analysis and interpretation of current and expected social and economic conditions.

Other Reports

- Reports on state and federally financed highway construction are available for most counties or combinations of counties.
- Custom reports on a wide variety of construction-related topics can be prepared by FMI.
- Reports are based on multiple sources and are appropriate for preliminary analytical and planning purposes but contain little or no direct observation of the area described and are not guaranteed by FMI to be accurate.

**For more information,
call 919.785.9268.**

About FMI's Research Services Group

As the construction industry becomes increasingly competitive, market intelligence becomes an important tool for the building industry. A more complete understanding of the market, market trends, customer perceptions, buying practices, competitor profiles and other market influencers will enhance craft labor studies.

Since 1953 FMI has provided consulting and training services specialized for the construction industry. FMI's market research includes both secondary and primary research designed to meet clients' specific needs. Both types of research are used to provide accurate assessments in a timely, efficient and concise manner for clients.

Typical project work performed includes customer buying practices, competitive analyses, market-size modeling, market forecasts and trends, channel performance analyses, customer satisfaction surveys and sales performance evaluations.



J. Randall (Randy) Giggard
Managing Director
Research Services

Randy Giggard is responsible for design, management and performance of primary and secondary market research projects and related research activities, including economic analysis and modeling, construction market forecasting and database management. Randy's particular expertise is in the areas of market sizing and modeling, competitive analysis, sales and market performance evaluations, buying practices and trends analysis.

Randy holds undergraduate degrees in mechanical engineering from Southern Illinois University and English from Illinois State University and a master's of marketing and management policy master's from Northwestern University.

T 919.785.9268

F 919.785.9320

Email: rgiggard@fminet.com

www.fminet.com

About FMI

FMI is a leading provider of management consulting, investment banking† and research to the engineering and construction industry. We work in all segments of the industry providing clients with value-added business solutions, including:

- Strategic Advisory
- Market Research and Business Development
- Leadership and Talent Development
- Project and Process Improvement
- Mergers, Acquisitions and Financial Consulting†
- Compensation Benchmarking and Consulting
- Risk Management Consulting

Founded by Dr. Emol A. Fails in 1953, FMI has professionals in offices across the U.S. We deliver innovative, customized solutions to contractors, construction materials producers, manufacturers and suppliers of building materials and equipment, owners and developers, engineers and architects, utilities, and construction industry trade associations. FMI is an advisor you can count on to build and maintain a successful business, from your leadership to your site managers.

Raleigh — Headquarters

5171 Glenwood Avenue
Suite 200
Raleigh, NC 27612
T 919.787.8400
F 919.785.9320

Denver

210 University Boulevard
Suite 800
Denver, CO 80206
T 303.377.4740
F 303.398.7291

Scottsdale

14500 N. Northsight Boulevard
Suite 313
Scottsdale, AZ 85260
T 602.381.8108
F 602.381.8228

Tampa

308 South Boulevard
Tampa, FL 33606
T 813.636.1364
F 813.636.9601



www.fminet.com

Copyright © 2013 FMI Corporation