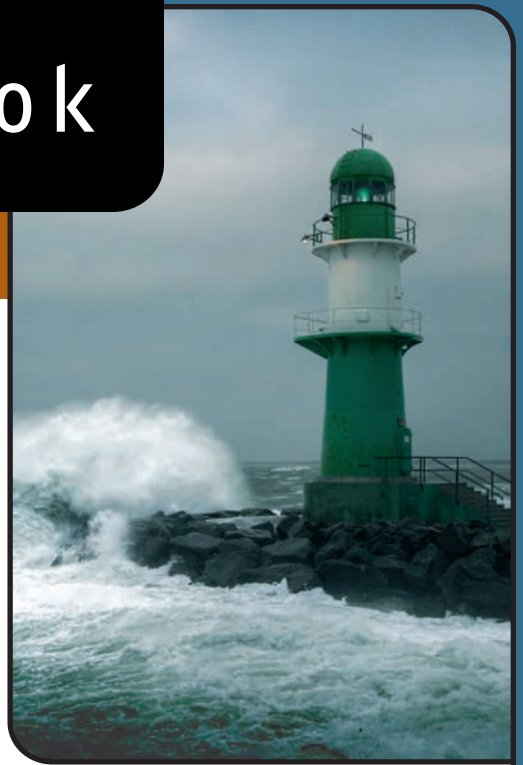


# FMI's Construction Outlook

## 3rd Quarter 2009 Report

The outlook for the general economy is improving, but that doesn't mean good news for construction yet. Total construction in 2009 and 2010 will be down 14% and 5%, respectively.



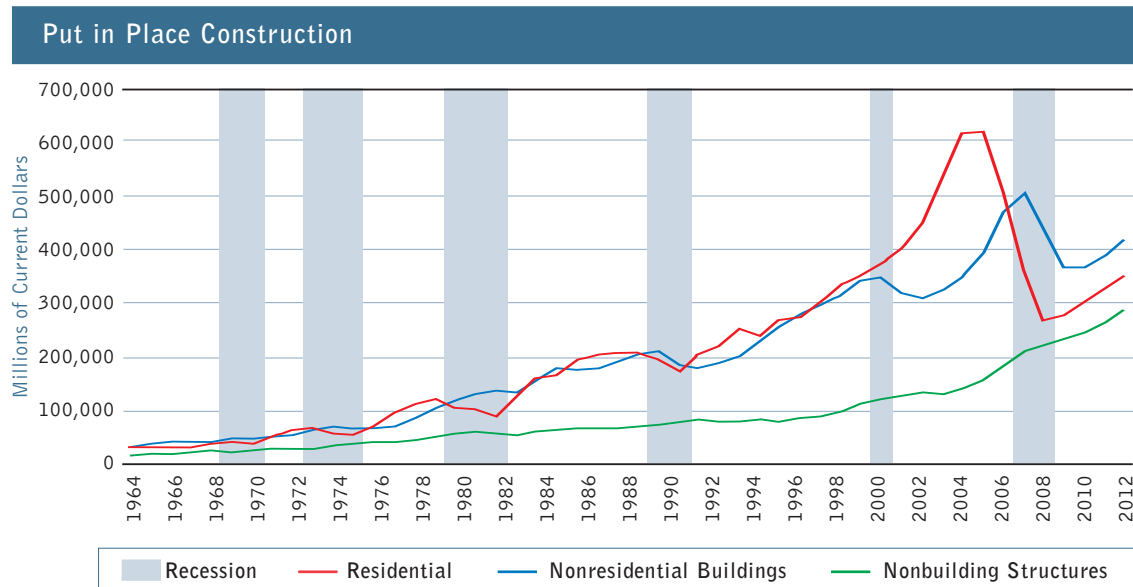
We still anticipate that residential construction may find the bottom this year, but that the decline until it does will be steep. Residential construction will decline 25% in 2009 and will recover in 2010. Nonresidential construction will decline 13% this year, with an even further decline of 16% in 2010. Nonbuilding construction will continue to be the only positive contributor, increasing 5% per year in 2009 and 2010, driven mostly by conservation and development construction.

Year-to-date nonresidential put in place construction through July is flat, but is expected to decrease sharply in the second half of this year. Contractors are reporting backlogs of 8 months in 3Q09 (down from 11 months in 1Q08), according to FMI's

*Third Quarter Nonresidential Construction Index (NRCI).* Tight credit continues to cause cancellations and delays. Project delays continue to be 4 times the normal rate and are currently at 20% (up from 3 times in 3Q08). Project cancellations are 5 times the normal rate and are currently at 10% of backlog (doubled from 3Q08). Credit is expected to remain tight through 2010, and delays and cancellations are likely to increase.

One of the most common questions that I am asked is, "Is the stimulus bill working?" My answer is that it is. It was not intended to stimulate the buildings market, and it certainly is not doing that. All kidding aside, it was designed to help stimulate infrastructure spending. It is helping to mitigate some of the loss in highway

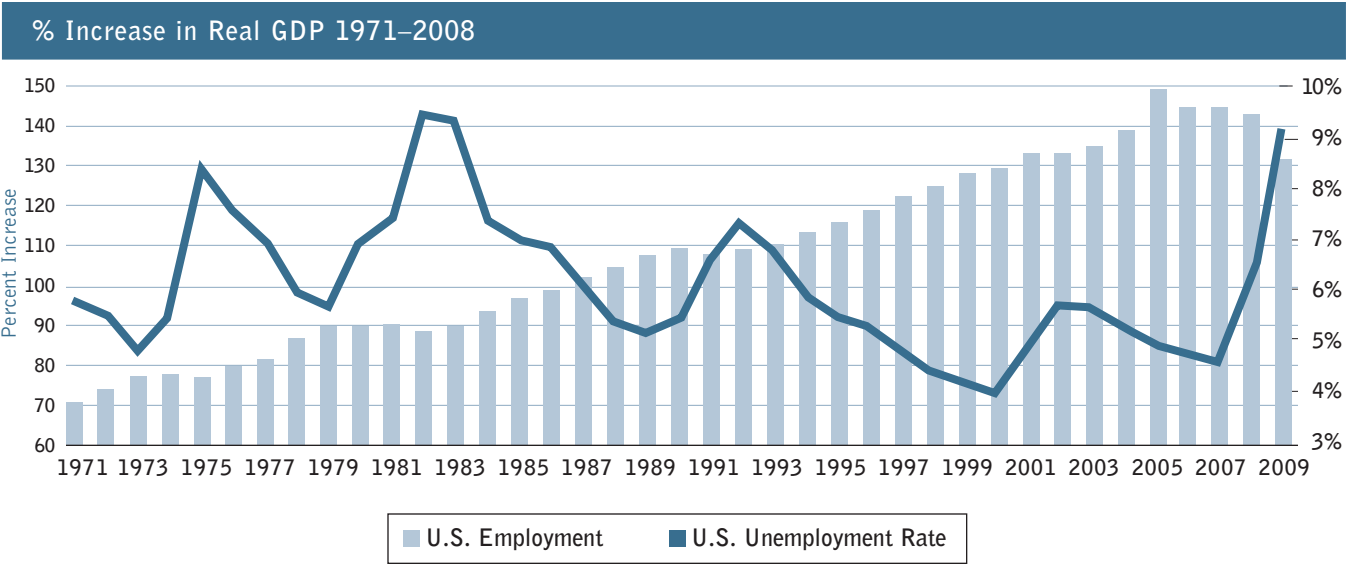
construction due to declining state revenues but, according to the GAO, states have spent 2/3 of stimulus funding on paving and widening projects. Moreover, ARRA funding has slowed to \$4.2 billion per week over the month, compared to \$9.7 billion per week over the prior four months. According to FMI's 3Q09 NRCI, less than 22% of panelists have seen effects from the stimulus bill, and 72% of the panelists believe that the bill has not made a difference in general market conditions. In addition, 31% of panelists will not pursue stimulus funds due to regulatory/legal requirements to receive the funds.



While there are some positive signs for the general economy, the construction industry should prepare for a two-year downturn in nonresidential construction. Construction lost 65,000 more jobs in August. It was the 25th consecutive month of significant job losses, bringing the construction unemployment rate to 16.5%. That means there are 1.5 million construction workers out of work and that 1.4 million construction jobs have been lost since the start of the recession. An increase in residential construction in 2010 could begin to turn the employment situation, but it is unlikely that it would do much to offset the losses from nonresidential construction.

The lodging, office and commercial segments will see the largest declines. Lodging construction has seen several cycles of overbuilding and corrections. Lodging construction saw three years of tremendous growth (increases of 41%, 58% and 25% from 2006 to 2008) and overbuilding. It is now time for at least two years of correction. Occupancy rates and RevPar have both been declining and will continue to do so until the correction is over. Office construction is dependent upon employment. Expectations are for the unemployment rate to continue climbing throughout 2010. It will be several years until vacancy rates are low enough to spur new construction. Commercial construction is dependent upon consumer spending and housing growth. Even a turnaround in housing in 2010 probably won't be enough to drive new commercial construction until 2012.

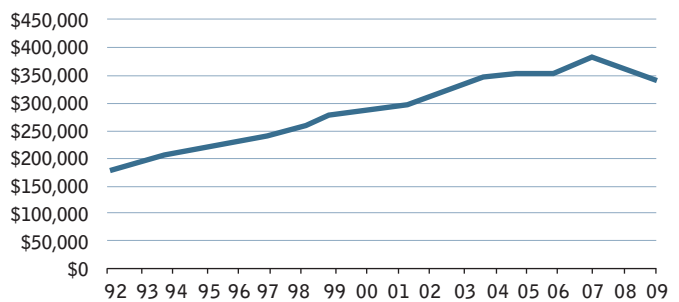
The general economy is a main driver for both residential and nonresidential construction. Real GDP decreased 1.0% in the second quarter according to preliminary estimates. GDP for the first quarter decreased 6.4%. Consensus Forecasts predicts that GDP will decline 2.6% for 2009 and then turn around and increase 2.4% in 2010. We believe that these estimates are optimistic and that they are extremely sensitive to the drivers discussed below.



The employment situation continued its decline in August. Employment fell and the unemployment rate rose in August. The unemployment rate increased to 9.7%. Employment decreased by 216,000 in August. Job losses continue in most major industries, yet the declines have moderated in recent months. Construction employment decreased by 65,000 in August. Over the past six months, job losses have averaged 117,000 per month. Employment in construction has contracted by 1.4 million since the beginning of the recession. Since early 2009, the larger portion of the job losses occurred in the nonresidential and heavy construction components compared to residential.

The Advance Monthly Retail Sales Report for July estimates that retail and food service sales were \$342.3 billion. This is a decrease of 0.1% from the previous month and a decrease of 8.3% from July 2008. Total sales for May through July 2009 were down 9.0% from the same period a year ago, and the May to June 2009 percent change was revised from 0.6% to 0.8%.

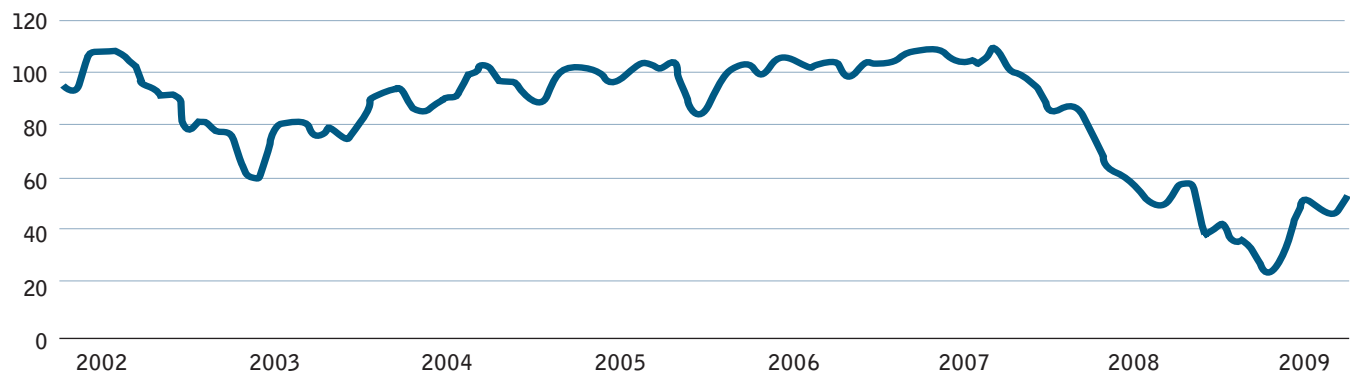
### Total Retail and Food Service Sales



Retail trade sales were down 0.1% from June 2009 and were down 9.4% from last year. Gasoline station sales were down 32.5% from July 2008, and building material and garden equipment and supplies dealers were down 14.7% from last year.

Total retail and food service sales, excluding motor vehicles and parts dealers (ex auto), were down 0.6% over the month and were down 8.5% from a year ago.

### Consumer Confidence Index



The Conference Board's Consumer Confidence Index, which fell in July, rebounded in August. The Index is now 54.1, up from 47.4 in July. The Expectations Index increased to 73.5 from 63.4. The Present Situation Index increased to 24.9 from 23.3.

"Consumer confidence, which had posted back-to-back monthly declines, appears to be back on the mend," says Lynn Franco, director of The Conference Board Consumer Research Center. "The Present Situation Index increased slightly, mainly the results of an improvement in consumers' assessment of the job market. The Expectations Index improved considerably and is now at its highest level since December 2007 (Index, 75.8). Consumers were more upbeat in their short-term outlook for

both the economy and the job market in August, but only slightly more upbeat in their income expectations. And, as long as earnings continue to weigh heavily on consumers' minds, spending is likely to remain constrained."

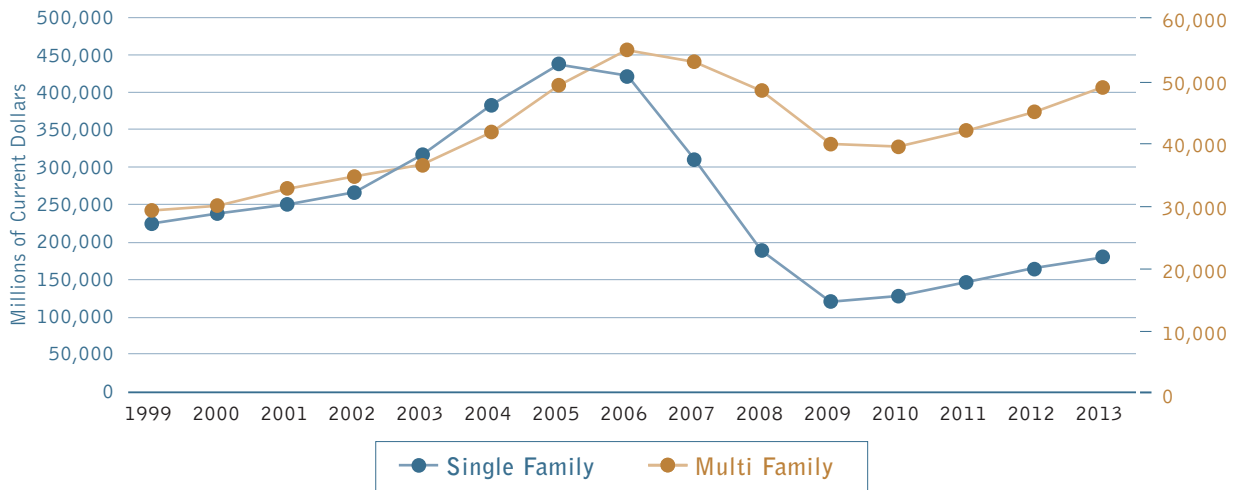
The economy may show some signs of improving, but it is just the beginning of the downfall for nonresidential construction. Nonresidential construction typically lags the general economy by about 18 months. Intense competition that has been bringing down prices has been reported. This is good for owners, but not so good for contractors. Nonbuilding construction will remain positive for the forecast period, with conservation and development, water and wastewater construction leading the sector.

# Residential

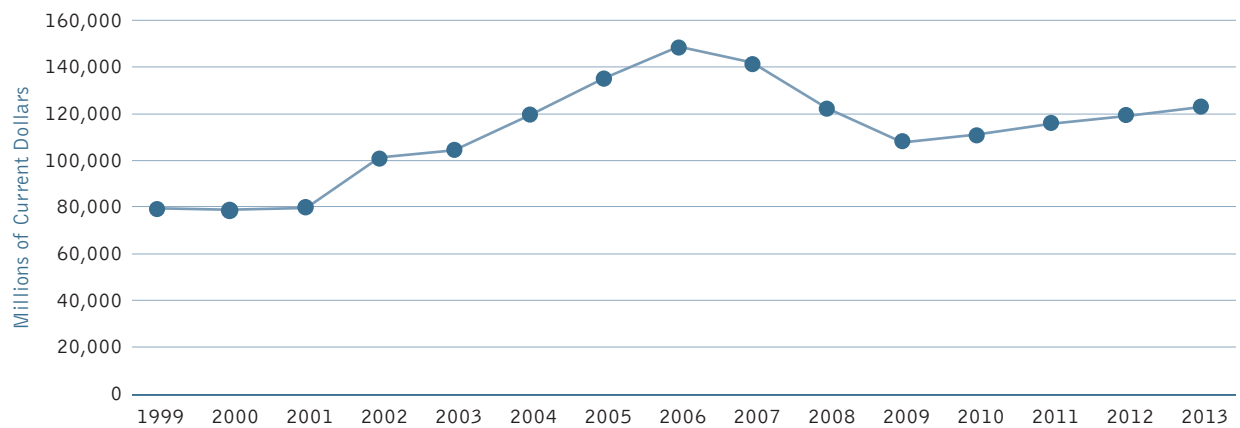
The residential construction market has been decimated. For housing starts, 2009 will be the worst year since we began keeping records in 1959. Total residential construction will be \$268.5 billion in 2009, down from its 2006 high of \$619.8 billion. At its peak, residential construction accounted for 53% of total construction. It will account for 29% in 2009.

Single family construction has plummeted from a 2005 high of \$434.9 billion to \$121.9 billion in 2009. Multi family construction and improvements have seen declines as well, but not of this magnitude. Multi family construction peaked in 2006 at \$54.3 billion. It will be \$39.2 billion in 2009. Improvements are down to \$107.3 billion from \$147.9 billion in 2006.

## Value of Residential Construction



## Value of Residential Improvements



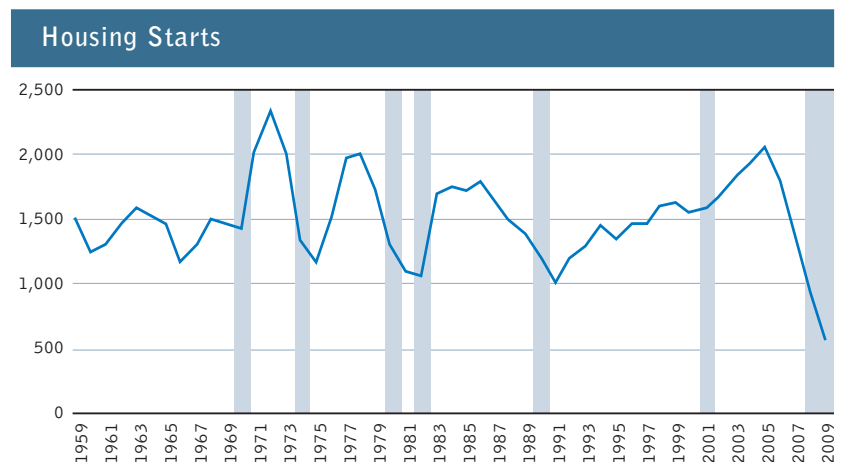
## Trends:

- **Total Occupied Units**
  - Owned-home households have declined by 108,000 (September through August) down 0.1%.
  - Renter households have increased by 1 million, or 2.8%, over the same 12-month period.
- **U.S. Median Home Price-to-Income Ratio**
  - Home ownership is currently much more available to households earning the median income. The August value for this ratio is 3.3. Historically, the average ratio is about 3.3. At the peak of the market in 2Q 2005, the ratio had reached almost 5.1. First-time homeowners are also benefiting from an \$8,000 government credit, but it is unknown whether this will be extended.
- **Share of Adjustable Rate Loans**
  - At the peak in April 2005 adjustable loans accounted for 35% of all mortgage applications. That share fell to about 2% by the end of 2008, but has been edging back up since. At the end of July 2009, adjustable loans accounted for 5.4% of all applications.
- **Equity per Owned Home**
  - Homeowner equity continues to erode, down 6% from the first to second quarter of 2009. Adjusting for inflation, homeowner equity has fallen 45% from its peak in late 2005 – from \$179,663 to \$98,815 at the end of July. Homebuyers, who in recent years saw buying a home as a safe or even lucrative investment, have dramatically lower expectations – and therefore motivation.
- **Homeownership Rate**
  - The affordability of homes drove the homeownership rate up slightly from 67.3% to 67.4% from the first and second quarters, respectively. The rate peaked at 69.2% in 4Q 2004. The current rate is in line with early 2000.
- **Supply of Unsold Homes**
  - Inventory of new homes for sale has been trending down since January 2009 and stands at a 7.5 month supply for August. The volume of new homes for sale (currently SA 282,000 homes) is down 53% from its peak in July 2006.

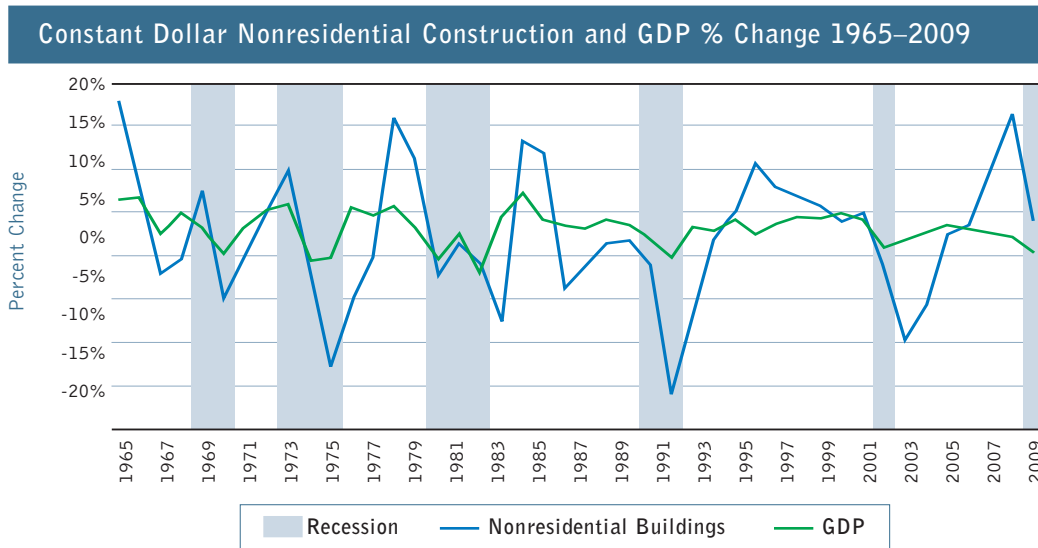
- **Vacant Homes for Sale**
  - Vacant homes for sale in the second quarter declined to 1.9 million. This is the lowest level since the third quarter of 2006. But nearly 313,000 of this amount is considered an excess that needs to be worked through before the housing market can recover. Further, there is an additional block of homes (unknown quantity) that is owned by banks but is being held off the market at this time. And there is a large inventory of 2006/2007 adjustable rate mortgages that will reset over the next two quarters. If interest rates were to rise, it would result in a new round of foreclosures.
- **Construction Mix**
  - Quality mix is shifting strongly toward smaller, more affordable homes with reduced amenities.

## Drivers:

- ↓ Unemployment Rate
- ↓ Core CPI
- ↓ Income
- Mortgage Rate
- ↓ Home Prices
- ↓ Housing Starts
- ↓ Housing Permits



# Nonresidential Buildings



## Lodging

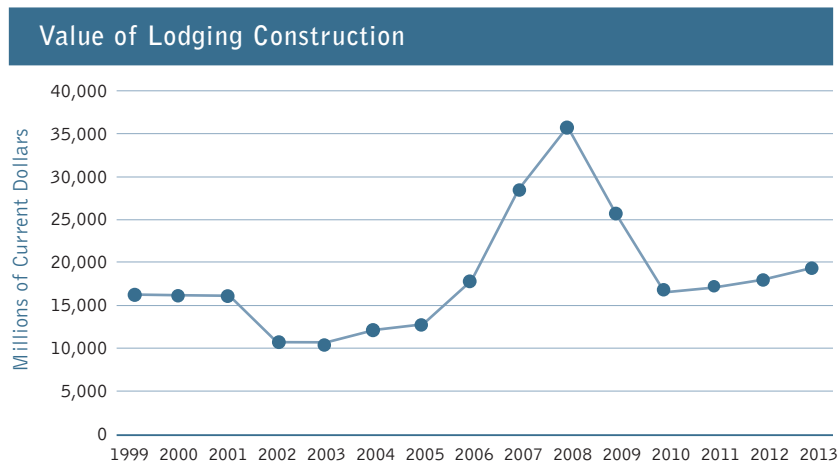
Lodging construction has gone through several cycles of overbuilding and corrections. This cycle of overbuilding began in 2004 and will end this year. After three years of extremely high growth, lodging peaked at \$35.8 billion in 2008. It will see at least two years of large declines, bringing the segment to just above historical levels.

### Trends:

- Securing financing remains the primary obstacle to new hotel construction
  - Minimal projects progressing through the construction pipeline; many postponed until conditions improve.
  - All key-sector metrics forecast to continue sliding in 2010.
  - Green movement is losing traction due to greater initial cost perceptions.
- Business and leisure travel are both down
  - Technology is reducing need for business travel.
  - Hotel performance linked to local economies.
  - Travelers are demanding rate concessions.
- Hotels coming online in 2009 and 2010 heavily concentrated on upscale as well as mid-scale without F&B chain segments
  - Mid and upscale segments will be the first to be renovated.
  - Lobby transformation becoming a differentiator and epicenter of hotels.

### Drivers:

- ↓ Occupancy Rate
- ↓ RevPar
- ↓ Average Daily Rate
- ↓ Room Starts



## Office

Office construction is highly dependent on employment. It will take several years until there is enough employment growth to spur new construction. Office construction will fall from its 2008 high of \$70.3 billion down to \$39.4 billion at its low in 2011.

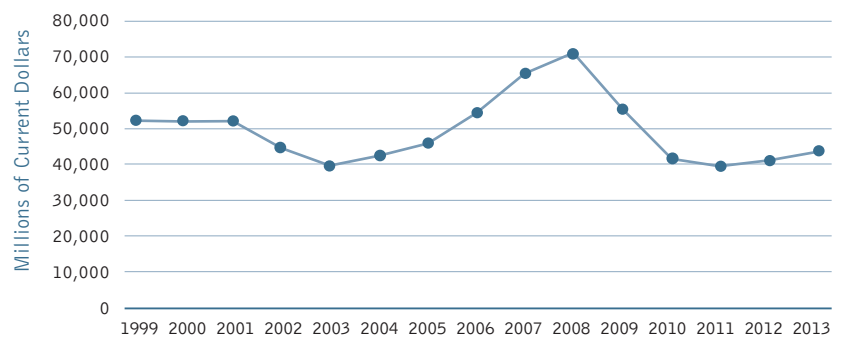
### Trends:

- The rise in vacancy rates has led to a reduction in rents and increases in incentives and concessions offered by landlords
  - New space entering supply only compounds vacancy rate issue.
  - Many tenants “Trading up” by relocating or upgrading to higher-quality space.
- National employment a key factor in demand for office building construction
  - Unemployment rate expected to reach 10% by the end of 2009.
  - The current recession has eliminated a net total of 6.9 million jobs since it began in December 2007; 14.9 million Americans remain unemployed.
- New construction at a standstill
  - Secured projects continue to enter inventory.
  - Many projects put on hold or abandoned until economy and employment situations improve.

### Drivers:

- ↑ Office Vacancy Rate
- ↑ Unemployment Rate
- ↓ Employment

### Value of Office Construction



## Commercial

Commercial construction relies heavily on consumer spending and new housing construction. Consumer spending will not return to high levels until the employment situation improves. Commercial construction will follow a turnaround in the housing market by 12 to 18 months. Commercial construction is not expected to pick up until 2012.

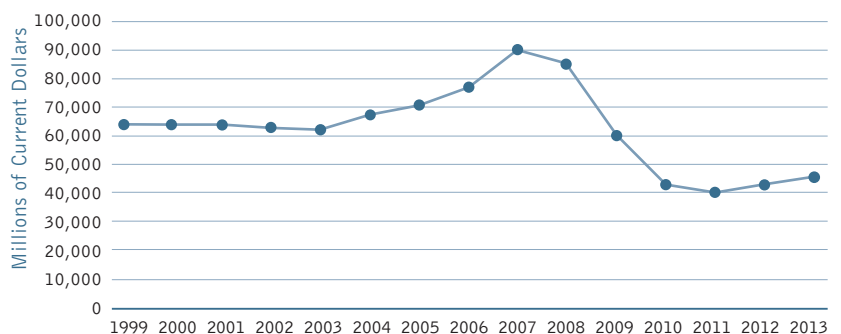
### Trends:

- Continued decreases in residential building activity
  - Stores linked to this market, including home improvement and furniture, will experience decreased consumer spending.
- Open-air centers replacing traditional, enclosed malls
  - Lower occupancy costs.
  - Loss of store chains.
- Renovation of vacant big-box stores
  - Repositioned for health care and educational purposes.
- Major expansion plans for discount and food retailers
  - Meet the demand of price-conscious shoppers.
- Increasing online retail sales
  - National retail square footage could decrease by as much as 15% in 2010.

### Drivers:

- ↓ Retail Sales
- ↓ CPI
- ↑ Unemployment
- ↓ Employment
- ↓ Income
- ↓ Housing Starts

### Value of Commercial Construction



## Health Care

Health care construction will likely see a small decline in 2009 and 2010. However, it will remain at a historically high level. Hospital construction will allow the segment to maintain its volume. Special care construction will help to drive future growth.

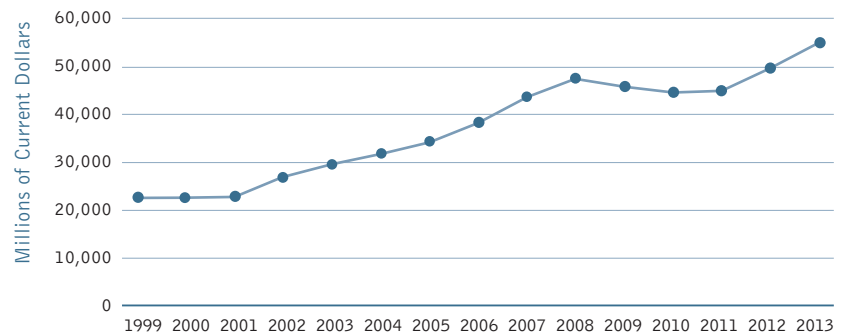
### Trends:

- **Aging population requires medical care**
  - Elderly population (i.e., older than 65 years of age) expected to double by 2040.
- **Retirement of baby boomers**
  - Life expectancy in the U.S. has climbed from 75 to 78 over the last 20 years.
  - Expected migration to suburban areas, particularly warmer climates.
- **Increased consumerism for health care**
  - Growing number of consumers seeking primary care at retail store clinics (e.g., Walmart, Walgreens).
  - Multispecialty ambulatory care centers are more profitable.
- **Inadequate, aging facilities**
  - The ARRA provides more than \$1 billion for the Veterans Health Administration's Non-Recurring Maintenance (NRM) projects and energy initiatives.
  - New building technologies and facility upgrades.
  - Seismic retrofits in California.
- **Single-bed hospital rooms requirement**

### Drivers:

- ↑ Population
- ↑ Population Change Age 75+
- ↑ Government Spending
- ↑ Uninsured Population
- ↓ Nonresidential Structure Investment

### Value of Health Care Construction



## Educational

Educational construction is expected to see a small dip in 2009 and 2010. State revenues are down which impacts K-12 construction, and the stock market is down which impacts endowments and spending at universities. However, a bill has passed the House and is in the Senate that would provide \$6 billion for school construction. The Senate removed funding for school construction from ARRA. If passed, it would be the first time that the federal government funded school construction.

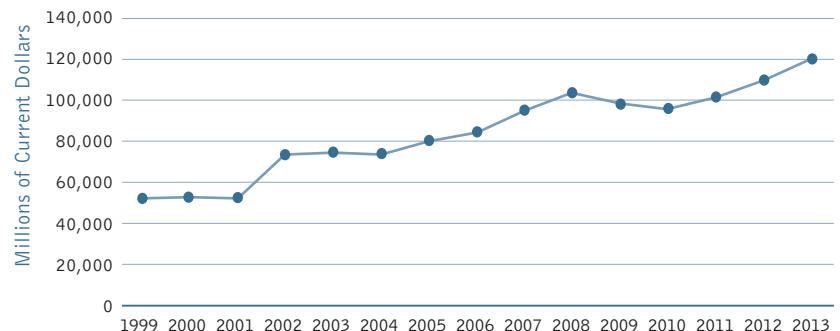
### Trends:

- **Government investment in public education**
  - 21st Century Green High-Performing Public School Facilities Act (H.R. 2187) would authorize \$6.4 billion for school renovation and modernization projects in fiscal year 2010.
  - Additional renovation funding could come from nearly \$40 billion in the ARRA for the State Fiscal Stabilization Fund.
  - State bonds passed (e.g., California, Texas).
- **Aging school facilities**
  - Thousands of schools built more than 50 years ago are in need of modernization or replacement.
  - Security enhancements needed to meet school concerns.
- **Increasing student enrollments**
  - U.S. Department of Education predicts that enrollment in elementary and secondary schools will grow by 7% to reach nearly 60 million by 2016.
  - Growth slower for grades nine through 12.
- **Growing market for green construction**
  - One of the top-three vertical markets for green construction, in terms of volume.
- **University capital spending put on hold**

### Drivers:

- ↑ Population Change Below 18
- ↑ Population Change Ages 18-24
- ↓ Stock Market
- ↑ Government Spending
- ↓ Nonresidential Structure Investment

### Value of Education Construction



## Religious

Religious construction is extremely sensitive to the economic environment. During an economic downturn, religious construction is usually the first segment to produce a decline. We expect religious construction to pick up when consumer spending and the employment situation improve.

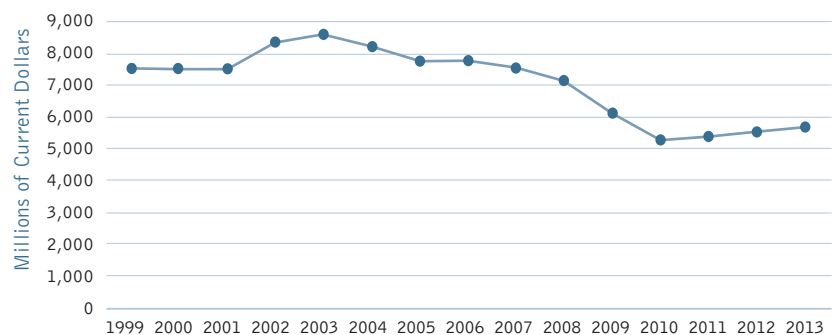
### Trends:

- Lending environment continues to be a challenge for many congregations
  - Establishing a capital campaign becoming increasingly common.
- Many churches are seeing tremendous declines in contributions and tithes
  - With church attendance on the rise, many are relying on their houses of worship to provide guidance and assistance — further stretching thin resources.
  - Social mobility and migration has altered the religious landscape of several regions, including New England and the Southeast.
- Improved space utilization and additions are taking the forefront as new construction is increasingly not an option

### Drivers:

- ↓ GDP
- ↑ Population
- ↓ Income
- ↑ Personal Savings

### Value of Religious Construction



## Public Safety

Public safety construction is the only nonresidential building segment that is not expected to decline. Jail and detention-center construction is down. The growth is coming from federal funding for military structures. Some of this funding is from ARRA, while some of it is from the BRAC program.

### Trends:

- Privately managed secure facilities
  - Alleviates budgetary constraints of local, state and federal agencies.
  - Shifts design, construction and operation risks from government agency to private company.
- Green
  - Some states, such as California, are mandating that all prisons meet LEED standards.
  - AIA Sustainable Justice Committee.
- Increased focus on military construction
  - From BRAC and ARRA.

### Drivers:

- ↑ Population
- ↑ Government Spending
- ↑ Incarceration Rate
- ↓ Nonresidential Structure Investment

### Value of Public Safety Construction



## Amusement and Recreation

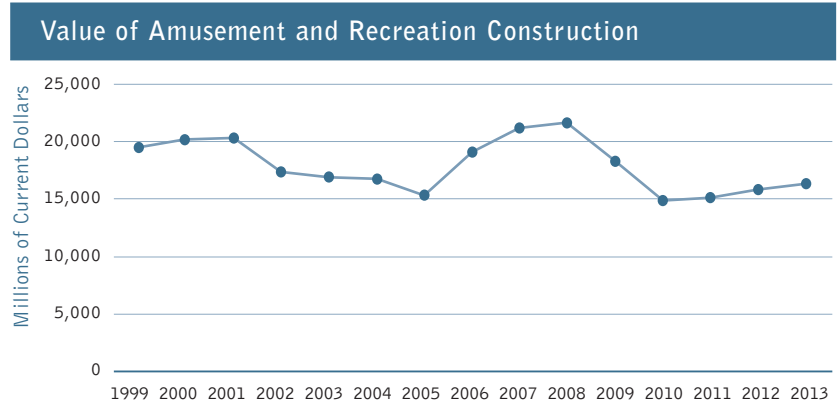
Amusement and recreation construction is expected to decline as casino projects are delayed and canceled, sports stadiums are completed and a spate of convention centers are finished. Tight credit, declining state revenues and decreases in consumer spending are a drag on this segment.

### Trends:

- Slowed by uncertain economic conditions
  - Lack of disposable income.
- Activity surrounding new and expansion casino construction
  - Several projects delayed in 2009 should begin in 2010.
  - New Greenbrier Resort Casino is to be completed by April 2010.
- Several new stadiums (e.g., Meadowlands Stadium, Twins Ballpark) for professional sports teams to come online in 2009 and 2010
  - Others facing availability of funding concerns.

### Drivers:

- ↓ Income
- ↑ Personal Savings Rate
- ↑ Unemployment Rate
- ↓ Employment



## Transportation

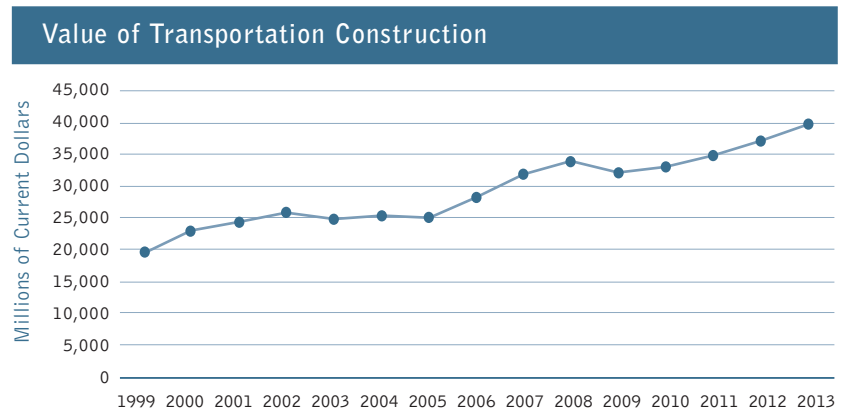
After a decline in 2009, transportation construction is expected to recover in 2010 and to remain at an elevated level. The size of the market will have doubled between 1999 and 2013. The growth will come mainly from rail and airport construction.

### Trends:

- Growing population is putting increased pressure on the capacity of our current transportation infrastructure
  - Increases the need for mass transit.
- Aviation spending is uncertain
  - The authorization of a federal aviation bill is under consideration.
- High-speed rail has yet to catch on but is likely to eventually

### Drivers:

- ↑ Population
- ↑ Government Spending
- Transportation Funding



## Communication

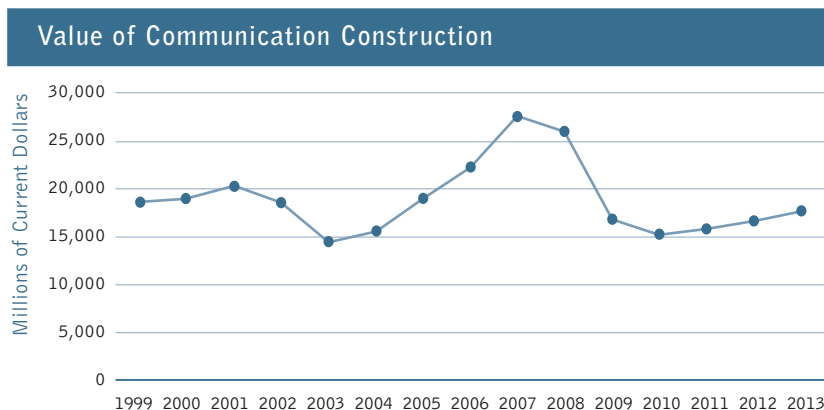
Communication construction had strong growth for four years before declining in 2008. It will decrease steeply in 2009 and further in 2010. After the declines, communication construction will be just below historical levels at \$15.8 billion in 2011.

### Trends:

- All signs would point to increased communication investment over the next five years, but reduced spending across the national nonresidential construction markets has significantly slowed private investment in communication construction
- Innovation and technology demands are ever-increasing as are our efforts in global mobility
- Population usually plays a role in increasing demand for communication construction. However, because of overbuilding experienced in previous years, decreased new building construction has hindered much of the investment in this segment
- Government and military spending are the two key parties supplying investment
  - Schools, BRAC and war efforts are large markets.
- With current economic conditions security is a key concern for businesses. Much of the private market's investment over the next few years in communication will be to increase security

### Drivers:

- ↑ Innovation / technology
- ↑ Global mobility
- ↑ Population
- ↑ Security / regulatory standards
- ↓ Private Investment



## Manufacturing

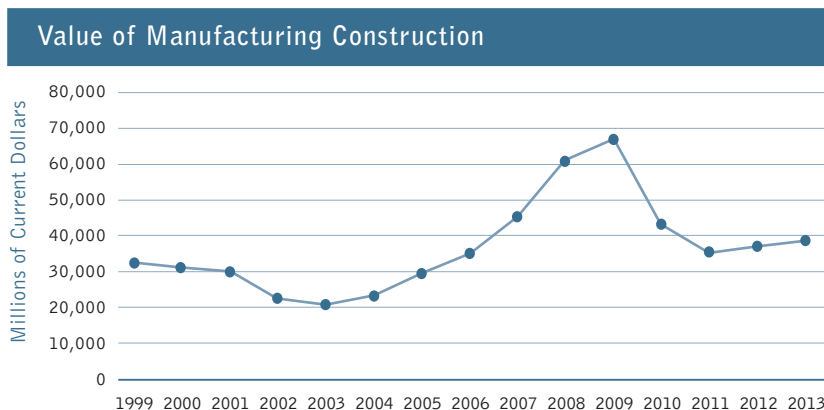
Manufacturing construction has experienced six years of strong growth almost doubling the size of the market. We expect it to decline in 2010 and 2011, but that it will remain at an elevated level. Manufacturing has changed over the years. It is no longer textiles and autos. The growth has come from billion dollar refinery projects, materials and electronic manufacturing. Investment from ARRA may spur some battery manufacturing projects.

### Trends:

- Manufacturing has been driven over the last two years through the demand for upgraded technology and the replacement of aging plants
  - Construction put in place for 2008 and 2009 are the high years for this segment.
- After 2009, construction tapers and falls into a cycle much like nonresidential is in currently
  - Economic effects such as the cost of natural gas and oil are expected to increase, and funding options are expected to continue.
- Manufacturing efforts are expected to continue to move overseas (or out of the country) where lower costs benefit business

### Drivers:

- ↓ PMI
- ↓ Industrial Production
- ↓ Capacity Utilization
- ↓ Factory Orders
- ↓ Durable Goods Orders
- ↓ Manufacturing Inventories



# Nonbuilding Structures

## Power

Power construction has seen three years of phenomenal growth. It has grown from \$35.5 billion in 2005 to \$86.6 billion in 2009. It is expected to remain positive for the next five years, reaching new highs each year. It is expected to be \$122.1 billion in 2013. The growth is mainly being driven by environmental regulation and transmission and distribution projects. There will likely be a spate of nuclear power projects in the future, but it is unlikely to happen during the forecast period.

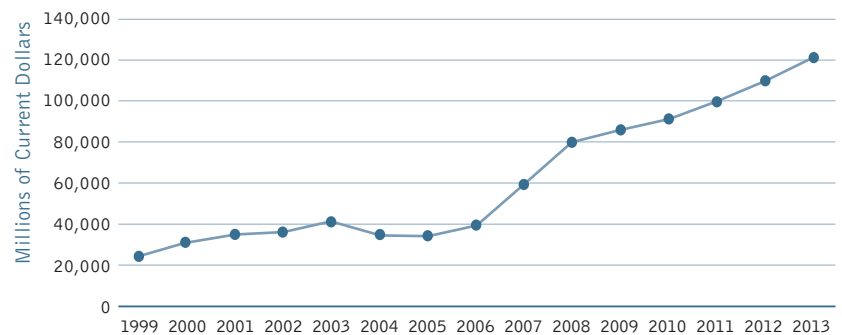
### Trends:

- **Call for a "nuclear renaissance"**
  - EPA Administrator Christine Todd Whitman believes that the U.S. needs 25 to 27 new reactors by 2030 for nuclear power to continue to produce 20% of the nation's electricity.
  - The U.S. Nuclear Regulatory Commission expects applications for as many as 34 new reactors by 2010.
  - The cost of building nuclear power plants is prohibitive without guaranteed loans, changing regulations and solving waste disposal.
- **NEI lobbyist Richard Myers said a new, two-unit nuclear power plant could cost as much as \$14 billion; by comparison, the entire market capitalization of many companies in the industry is barely double this, or smaller**
  - Exelon Delays Plan for Texas Nuke Plant on 06/30/2009.
- **Wind Power Generation**
  - Today only 1% of America's power needs are generated by wind power. Experts believe that it will generate 20% of America's electricity needs by 2030.
  - Pickens project delayed due to lower energy prices from traditional sources.
  - Power grid insufficient to handle the output of wind farms, especially in remote areas where there is the most wind potential.
- **Solar Power**
  - Florida Power & Light, the state's largest energy supplier, is building three solar plants. It will take Florida from not even being on the solar map to being the second-largest producer in the nation (after California). By the end of next year, the plants will produce 110 megawatts of electricity, enough for 35,000 homes and businesses.
  - Big Solar will generate jobs as well as electricity: solar thermal and photovoltaic power plants.
  - Lower cost of traditional energy will slow advance of alternative energy plants.

### Drivers:

- ↓ Industrial Production
- ↑ Population
- ↓ Nonresidential Structure Investment

Value of Power Construction



## Highway and Street

Highway and street construction is facing a tough climate with state revenues declining. The funding from ARRA is just enough to offset these losses although it is mostly paving projects that are being funded. The ARRA funding along with an extension of the highway bill would be enough to keep highway and street construction flat. A new highway bill along with increases in state revenues has the potential to increase the level of construction.

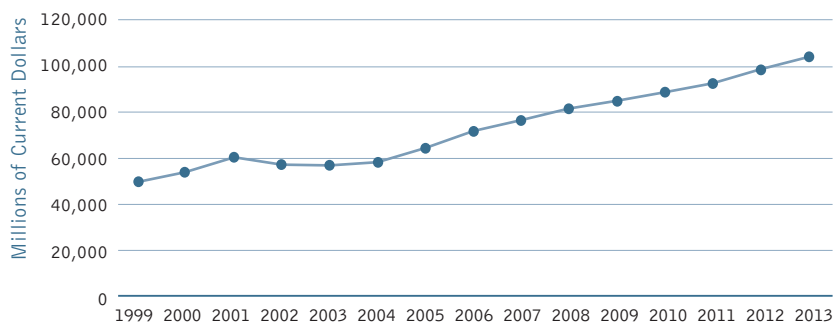
### Trends:

- AASHTO estimated in 2008 that it would cost roughly \$140 billion to repair every deficient bridge in the country—about \$48 billion to repair structurally deficient bridges and \$91 billion to improve functionally obsolete bridges
- Highway Bill
  - There is a large debate about what will happen to the bill. The Obama Administration and the Senate are pursuing an 18-month extension so that SAFETEA-LU will end in the spring of 2010 and they are willing to let the funding levels lapse with additional infusions.
  - The current significant challenge in issuing a new bill is the revenue streams. There is a \$90 billion highway and bridge funding shortfall over the next six years (2010-2015) at current investment levels. This is a situation that has never been an issue in previous bills.
  - The proposed \$500 billion needed over the next six years includes \$337 billion for highways and bridges, \$100 billion for public transportation, \$13 billion for safety and \$50 billion for passenger rail. Together there is \$140 billion in revenues that will need to be found or created to make this happen.
- Tax revenues decline as the economy is in recession, resulting in a decrease in available state funds
- May see increased interest in PPP funding (i.e., more toll roads)
- Slow residential construction in 2009 and 2010 will decrease need for new roads in the near term

### Drivers:

- ↑ Population
- ↑ Government Spending
- ↓ Nonresidential Structure Investment

Value of Highway and Street Construction



## Sewage and Waste Disposal

Sewage and waste disposal construction will remain at a historically high level. The market has more than doubled in size over the last decade from \$10.1 billion in 1999 to \$25.7 billion in 2009. Slow, steady growth will push the market to reach \$32.1 billion in 2013.

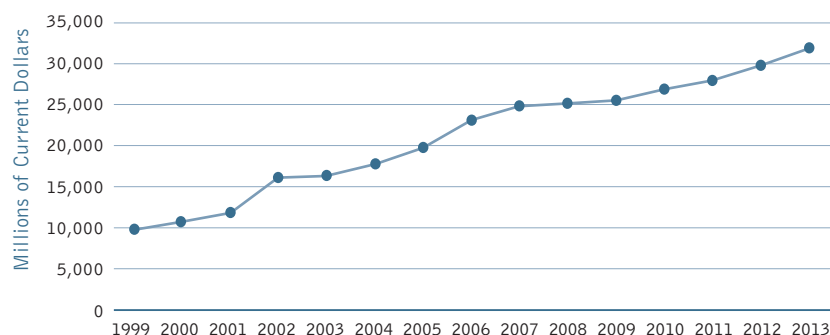
### Trends:

- 2008 EPA estimates that America needs to invest \$202.5 billion to update and improve wastewater systems
- The concept of toxic has been redefined, not just because we are better prepared to measure for a number of toxins, but because municipal and manufacturing waste potentially contains a growing number of different chemicals and potential toxins
- ARRA will award the EPA \$4 billion to construct wastewater infrastructure and restore and protect surface and groundwater quality
- With so many old, especially small, sewage and waste disposal systems needing repair, there is an opportunity to upgrade to new technologies and improve sustainability
  - The biggest area of need will be rehabilitating the sewer network and upgrading wastewater treatment plants.

### Drivers:

- ↑ Population
- ↓ Industrial Production
- ↑ Government Spending

Value of Sewage and Waste Disposal Construction



## Water Supply

Water supply construction will barely outpace inflation for the next three years. It has grown from \$7.6 billion in 1999 to \$17.1 billion in 2009. It will grow to \$20.8 billion in 2013. The aging water supply systems, along with many large EPA consent decrees, will eventually spur increases in construction levels.

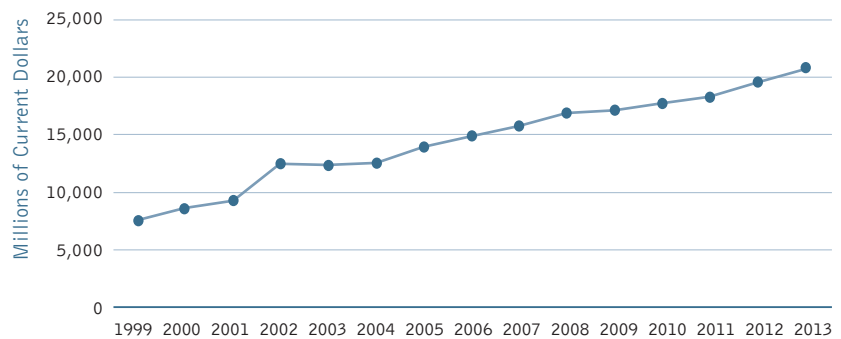
### Trends:

- An estimated 19.5 million Americans fall ill each year from drinking water contaminated with parasites, bacteria or viruses, according to a study published last year in the scientific journal *Reviews of Environmental Contamination and Toxicology*. That figure does not include illnesses caused by other chemicals and toxins
- The EPA will award \$2 billion in ARRA funds to help states and local communities address drinking water needs, such as water treatment and distribution systems
  - States will have the flexibility to target resources to their particular environmental needs by basing project priorities on public health and environmental factors, in addition to readiness to proceed to construction.
- Thousands of smaller municipalities and drinking water systems face a huge challenge to upgrade to new EPA standards for drinking water

### Drivers:

- ↑ Population
- ↓ Industrial Production
- ↑ Government Spending

### Value of Water Supply Construction



## Conservation and Development

Conservation and development construction is one of the few surprise winners from the stimulus bill. The Army Corps of Engineers received \$4.6 billion from the stimulus. Although not all of these funds will be used for what we consider construction, and it will take several years for the funds to be worked into construction, it is a large amount of money considering that the market was around \$5.4 billion before the stimulus.

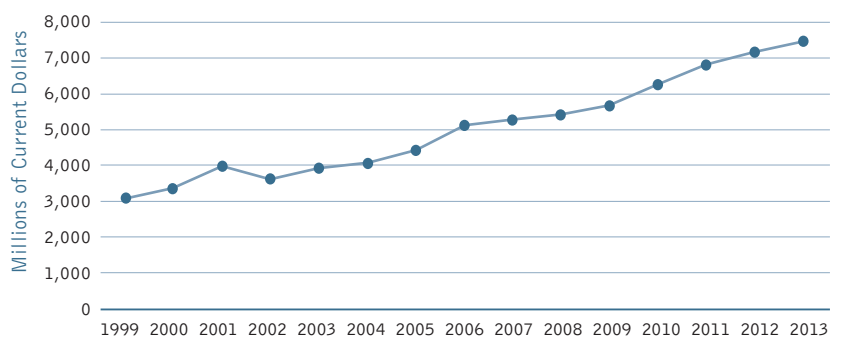
### Trends:

- Revitalized neighborhoods from brownfields (\$100 million)
  - The goal of EPA's Brownfields Program is to revitalize and restore neighborhoods through environmental cleanup. The program has a proven history of attracting private investment, producing trained environmental technicians, creating jobs and spurring local economic development. Through the Recovery Act, EPA will issue competitive grants to evaluate and cleanup brownfields, which will in turn encourage redevelopment.
- Superfund hazardous waste cleanup (\$600 million)
  - EPA's Superfund Program funds the cleanup of uncontrolled hazardous waste sites. The funding will provide further cleanup at Superfund National Priority List sites, maximize job creation and retention, and provide environmental and economic benefits. To speed cleanup conducted through the Recovery Act, EPA will use the funds for sites on the Superfund National Priority List and use in-place, competitively awarded contracts, interagency agreements and cooperative agreements for emergency response and cleanup activity.

### Drivers:

- ↑ Population
- ↑ Government Spending

### Value of Conservation and Development Construction



# Construction Put in Place

Estimated for The United States

Millions of Current Dollars 3rd Quarter 2009															
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>RESIDENTIAL BUILDINGS</b>															
Single Family	225,687	238,269	251,123	267,205	311,879	378,934	434,912	417,518	306,990	187,609	121,946	128,043	147,249	164,919	181,411
Multi Family	29,284	29,740	32,342	34,268	36,420	41,321	48,699	54,324	52,570	47,823	39,215	38,823	41,540	44,448	48,004
Improvements*	78,731	84,054	89,096	100,487	102,952	118,153	133,896	147,973	140,909	121,977	107,339	110,559	114,982	118,431	121,984
<b>Total Residential</b>	<b>333,703</b>	<b>352,063</b>	<b>372,561</b>	<b>401,960</b>	<b>451,251</b>	<b>538,408</b>	<b>617,507</b>	<b>619,814</b>	<b>500,468</b>	<b>357,408</b>	<b>268,500</b>	<b>277,425</b>	<b>303,771</b>	<b>327,799</b>	<b>351,399</b>
<b>NONRESIDENTIAL BUILDINGS</b>															
Lodging	16,512	16,850	15,486	10,869	10,712	12,363	12,840	18,139	28,706	35,818	25,789	16,763	17,433	18,305	19,586
Office	51,977	61,001	59,495	44,277	39,418	42,404	45,763	54,187	65,259	70,305	54,838	41,128	39,483	41,063	43,526
Commercial	63,329	67,873	68,506	62,520	61,529	67,057	70,242	76,713	89,684	84,942	59,459	42,216	39,683	42,064	45,009
Health Care	22,797	24,615	24,776	27,139	29,329	32,184	34,430	38,472	43,766	47,699	45,791	44,875	45,100	49,610	55,067
Educational	52,456	58,848	64,960	73,862	74,316	74,250	79,687	84,928	96,758	104,081	97,836	95,879	101,632	109,763	120,739
Religious	7,433	8,071	8,806	8,339	8,569	8,159	7,735	7,749	7,540	7,125	6,056	5,269	5,374	5,536	5,702
Public Safety	9,762	10,049	9,558	7,827	7,161	7,019	7,314	7,768	10,201	12,936	13,712	14,261	14,688	15,276	16,040
Amusement and Recreation	19,525	20,168	20,207	17,328	16,847	16,695	15,236	19,033	21,212	21,488	18,265	14,794	15,000	15,694	16,322
Transportation	19,525	22,887	24,409	25,781	24,710	25,059	25,052	27,964	31,877	33,953	31,916	32,873	34,846	36,936	39,522
Communication	18,617	18,958	20,173	18,457	14,550	15,546	18,906	22,219	27,580	25,649	16,672	15,171	15,778	16,567	17,561
Manufacturing	33,107	32,184	30,364	22,926	21,508	23,808	30,040	35,500	45,720	61,269	67,396	43,807	36,360	37,814	39,327
<b>Total Nonresidential Buildings</b>	<b>315,041</b>	<b>341,503</b>	<b>346,739</b>	<b>319,325</b>	<b>308,649</b>	<b>324,544</b>	<b>347,245</b>	<b>392,672</b>	<b>468,303</b>	<b>505,265</b>	<b>437,730</b>	<b>367,038</b>	<b>365,469</b>	<b>388,628</b>	<b>418,400</b>
<b>NONBUILDING STRUCTURES</b>															
Power	24,796	32,289	35,025	36,804	41,450	35,395	35,466	39,754	59,305	80,160	86,573	91,767	100,026	110,029	122,132
Highway and Street	50,248	54,002	60,554	57,484	57,139	58,623	64,139	72,040	76,682	81,801	85,073	88,476	92,900	98,474	104,382
Sewage and Waste Disposal	10,071	10,949	12,006	16,237	16,581	17,929	19,867	23,186	24,872	25,143	25,646	26,928	28,005	29,966	32,063
Water Supply	7,617	8,587	9,397	12,442	12,492	12,620	14,028	14,960	15,798	16,951	17,121	17,805	18,339	19,623	20,801
Conservation and Development	3,076	3,362	3,967	3,621	3,935	4,044	4,453	5,130	5,260	5,405	5,675	6,243	6,805	7,145	7,431
<b>Total Nonbuilding Structures</b>	<b>95,808</b>	<b>109,190</b>	<b>120,949</b>	<b>126,588</b>	<b>131,597</b>	<b>128,611</b>	<b>137,953</b>	<b>155,070</b>	<b>181,917</b>	<b>209,460</b>	<b>220,087</b>	<b>231,219</b>	<b>246,075</b>	<b>265,236</b>	<b>286,809</b>
<b>Total Put in Place</b>	<b>744,551</b>	<b>802,756</b>	<b>840,249</b>	<b>847,873</b>	<b>891,497</b>	<b>991,563</b>	<b>1,102,705</b>	<b>1,167,556</b>	<b>1,150,688</b>	<b>1,072,133</b>	<b>926,317</b>	<b>875,683</b>	<b>915,316</b>	<b>981,663</b>	<b>1,056,608</b>

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

Change From Prior Year - Current Dollar Basis 3rd Quarter 2009															
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>RESIDENTIAL BUILDINGS</b>															
Single Family	12%	6%	5%	6%	17%	22%	15%	-4%	-26%	-39%	-35%	5%	15%	12%	10%
Multi Family	11%	2%	9%	6%	6%	13%	18%	12%	-3%	-9%	-18%	-1%	7%	7%	8%
Improvements*	4%	7%	6%	13%	2%	15%	13%	11%	-5%	-13%	-12%	3%	4%	3%	3%
<b>Total Residential</b>	<b>10%</b>	<b>6%</b>	<b>6%</b>	<b>8%</b>	<b>12%</b>	<b>19%</b>	<b>15%</b>	<b>0%</b>	<b>-19%</b>	<b>-29%</b>	<b>-25%</b>	<b>3%</b>	<b>9%</b>	<b>8%</b>	<b>7%</b>
<b>NONRESIDENTIAL BUILDINGS</b>															
Lodging	8%	2%	-8%	-30%	-1%	15%	4%	41%	58%	25%	-28%	-35%	4%	5%	7%
Office	10%	17%	-2%	-26%	-11%	8%	8%	18%	20%	8%	-22%	-25%	-4%	4%	6%
Commercial	7%	7%	1%	-9%	-2%	9%	5%	9%	17%	-5%	-30%	-29%	-6%	6%	7%
Health Care	4%	8%	1%	10%	8%	10%	7%	12%	14%	9%	-4%	-2%	0%	10%	11%
Educational	13%	12%	10%	14%	1%	0%	7%	7%	14%	8%	-6%	-2%	6%	8%	10%
Religious	12%	9%	9%	-5%	3%	-5%	-5%	0%	-3%	-6%	-15%	-13%	2%	3%	3%
Public Safety	1%	3%	-5%	-18%	-9%	-2%	4%	6%	31%	27%	6%	4%	3%	4%	5%
Amusement and Recreation	14%	3%	0%	-14%	-3%	-1%	-9%	25%	11%	1%	-15%	-19%	2%	4%	4%
Transportation	2%	17%	7%	6%	-4%	1%	0%	12%	14%	7%	-6%	3%	6%	6%	7%
Communication	47%	2%	6%	-9%	-21%	7%	22%	18%	24%	-7%	-35%	-9%	4%	5%	6%
Manufacturing	-19%	-3%	-6%	-24%	-6%	11%	26%	18%	29%	34%	10%	-35%	-17%	4%	4%
<b>Total Nonresidential Buildings</b>	<b>6%</b>	<b>8%</b>	<b>2%</b>	<b>-8%</b>	<b>-3%</b>	<b>5%</b>	<b>7%</b>	<b>13%</b>	<b>19%</b>	<b>8%</b>	<b>-13%</b>	<b>-16%</b>	<b>0%</b>	<b>6%</b>	<b>8%</b>
<b>NONBUILDING STRUCTURES</b>															
Power	3%	30%	8%	5%	13%	-15%	0%	12%	49%	35%	8%	6%	9%	10%	11%
Highway and Street	10%	7%	12%	-5%	-1%	3%	9%	12%	6%	7%	4%	4%	5%	6%	6%
Sewage and Waste Disposal	12%	9%	10%	35%	2%	8%	11%	17%	7%	1%	2%	5%	4%	7%	7%
Water Supply	7%	13%	9%	32%	0%	1%	11%	7%	6%	7%	1%	4%	3%	7%	6%
Conservation and Development	10%	9%	18%	-9%	9%	3%	10%	15%	3%	3%	5%	10%	9%	5%	4%
<b>Total Nonbuilding Structures</b>	<b>8%</b>	<b>14%</b>	<b>11%</b>	<b>5%</b>	<b>4%</b>	<b>-2%</b>	<b>7%</b>	<b>12%</b>	<b>17%</b>	<b>15%</b>	<b>5%</b>	<b>5%</b>	<b>6%</b>	<b>8%</b>	<b>8%</b>
<b>Total Put in Place</b>	<b>8%</b>	<b>8%</b>	<b>5%</b>	<b>1%</b>	<b>5%</b>	<b>11%</b>	<b>11%</b>	<b>6%</b>	<b>-1%</b>	<b>-7%</b>	<b>-14%</b>	<b>-5%</b>	<b>5%</b>	<b>7%</b>	<b>8%</b>

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

## FMI's Construction Market Forecasts

### 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 non-building 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, in most major text or spreadsheet formats. Graphs can be provided at additional cost.

### About FMI

Founded in 1953 by Dr. Emol A. Fails, FMI provides management consulting and investment banking for the worldwide construction industry.

FMI, management consultants and investment bankers to the building and construction industry, delivers innovative solutions to contractors, architects and engineers, construction materials producers, manufacturers and suppliers of building products and construction equipment, private owners, residential builders, utilities, government agencies, surety companies and trade associations.

FMI's management consulting practice provides a wide array of services, including strategy, training and talent development, leadership and organizational development, market research, project execution, business development and compensation consulting. FMI's investment banking practice provides merger and acquisition advisory services, capital placement and financial advisory services.



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### 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 919.785.9335

### 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.



**Heather Jones**  
Construction Economist

Heather Jones is a construction economist in the Research Services Group. She 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. Heather's particular expertise is in the areas of market sizing and modeling, competitive analysis, sales and market performance evaluations, buying practices and trends analysis.

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