

# 2016

Fourth Quarter Report

## CIRT Sentiment Index

### EXECUTIVE SUMMARY

At 50.4 for the fourth quarter, the CIRT Sentiment Index lost 1.4 points compared to the third-quarter results. The CIRT Design Index fell a sizable 8.8 points to 49.6. This is the first time since its inception in the first quarter of 2011 that the Design Index has fallen below 50.0, or the line between growth and decline. This quarter's results also represent the lowest score for the CIRT Sentiment Index since the fourth quarter of 2009, as the economy began to pull out of recession.

Looking at the major economic factors, we find most components have dropped slightly. One positive factor is that the median reported for backlog is 15 months, the largest we have seen since starting the Index. That should help keep business up through the first part of 2017. But respondents expect backlogs to drop in the coming quarter, thus leading to a less certain, long-term outlook.

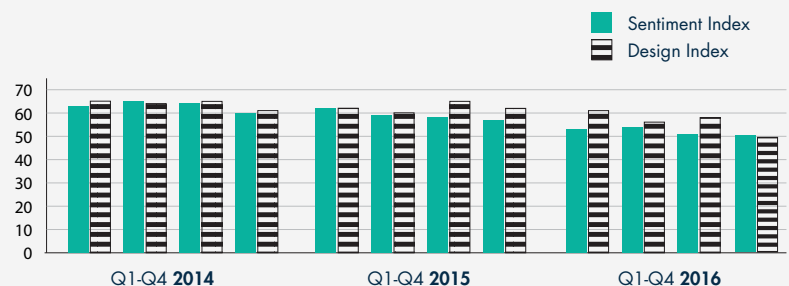
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### CURRENT SUMMARY

Overall economy	down
Overall economy where we do business	down
Our construction business	up
Residential building construction market where we do business	down
Nonresidential building construction market where we do business	up
Our expected backlog	down
Cost of construction materials	lower
Cost of labor	lower
Productivity	higher

### EXHIBIT 1

CIRT Sentiment Index Scores from Q1 2014 to Q4 2016



Current CIRT Sentiment Index Reading for Q4 2016

**50.4**

Current CIRT Design Index Reading for Q4 2016

**49.6**

(Scores above 50 indicate expansion, below 50 indicate contraction.)

# ABOUT THE CONSTRUCTION INDUSTRY ROUND TABLE (CIRT)

The Construction Industry Round Table (CIRT) is composed exclusively of approximately 115 CEOs from the leading architectural, engineering and construction firms doing business in the United States.

CIRT is the only organization that is uniquely situated as a single voice representing the richly diverse and dynamic design/construction community. First organized in 1987 as the Construction Industry Presidents' Forum, the Forum has since been incorporated as a not-for-profit association with the mission "to be a leading force for positive change in the design/construction industry while helping members improve the overall performance of their individual companies."

The Round Table strives to create one voice to meet the interests and needs of the design/construction community. CIRT supports its members by actively representing the industry on public policy issues, by improving the image and presence of its leading members, and by providing a forum for enhancing and developing strong management approaches through networking and peer interaction.

The Round Table's member CEOs serve as prime sources of information, news and background on the design/construction industry and its activities. If you are interested in obtaining more information about the Construction Industry Round Table, please call 202-466-6777 or contact us by email at [cirt@cirt.org](mailto:cirt@cirt.org).

## CIRT SENTIMENT INDEX

The CIRT Sentiment Index is a survey of members of the Construction Industry Round Table conducted quarterly by FMI Research, Raleigh, North Carolina. For press contact or questions about the CIRT Sentiment Index, contact Mark Casso at [mcasso@cirt.org](mailto:mcasso@cirt.org) and/or Phil Warner, research consultant with FMI Corporation, at [pwarnar@fminet.com](mailto:pwarnar@fminet.com) or call 919-785-9357.

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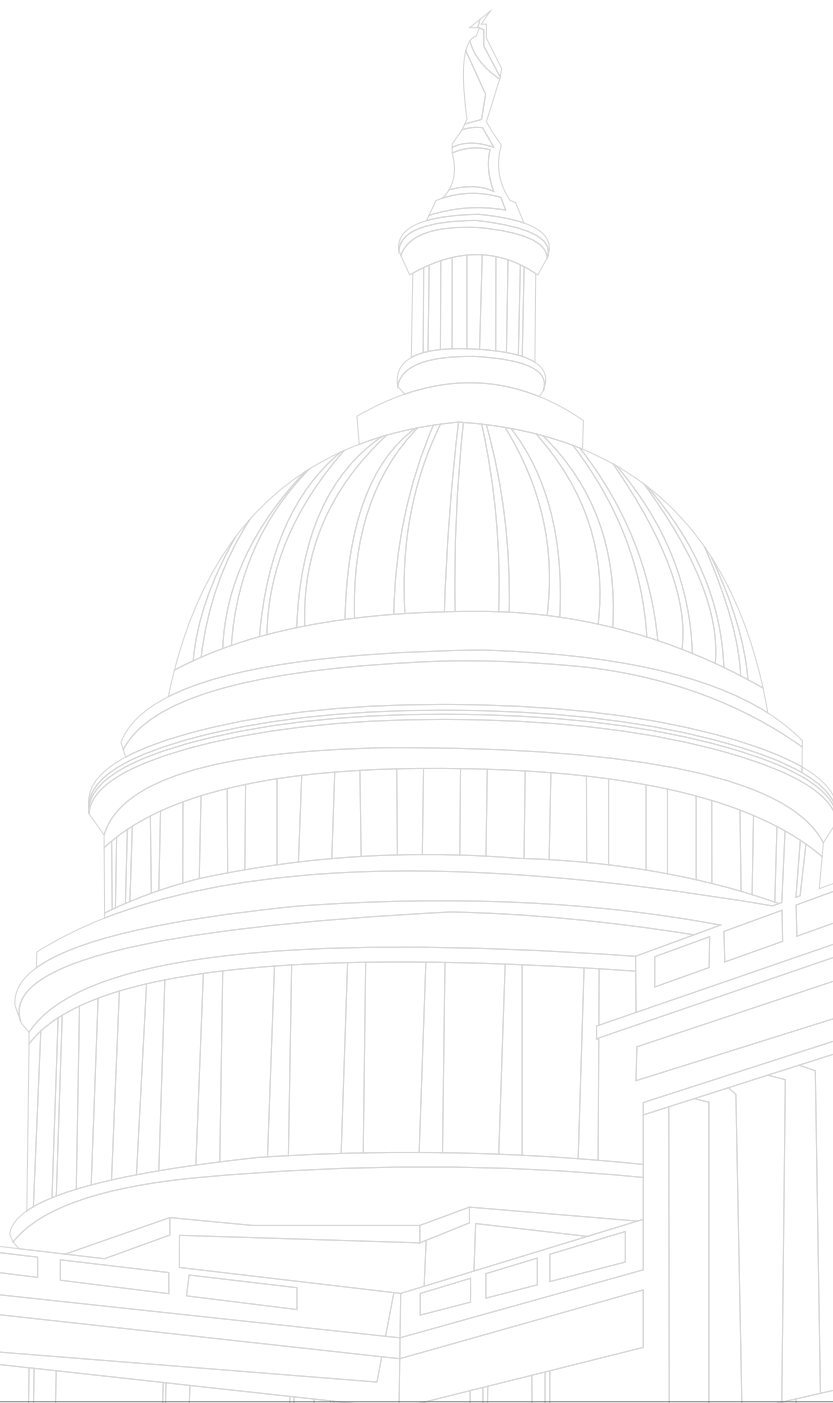
## CONFIDENTIALITY

All individual responses to this survey will be confidential and shared outside of FMI only in the aggregate.  
All names of individuals responding to this survey will remain confidential to FMI.

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## Executive Summary *continued ...*

At this point, the trend going into 2017 indicates little growth. However, now that a contentious election is behind us, the hope is that much of the uncertainty caused by election rhetoric will begin to lift, and we will have a better idea of which way the Federal Reserve goes on interest rates and how the new administration and Congress approach issues like infrastructure spending. In any event, as we found in our questions about taking external issues under consideration for strategic planning, it is a good time for those crafting their plans and goals for the coming year or years to look at a variety of potential issues that could affect the economy in 2017 and beyond.



# CIRT Sentiment Index, Third Quarter 2016 Highlights

## Overall Economy:

The Sentiment for the overall economy slipped just 0.5 points this quarter, indicating a continued expectation of slowing growth.

## Overall Economy Where Respondents

### Do Business:

The outlook for the markets CIRT members work in tumbled a full point to 52.3 this quarter, in line with the overall outlook for the economy.

# CIRT Design Index Components

## Consulting Planning:

The component score for consulting planning dropped 8.3 points to 53.6 this quarter. This is a strong sign of slower growth to come.

## Pre-design work:

While still in growth mode at 53.1, the Index component for pre-design work lost an enormous 15.1 points in the fourth quarter.

## Residential:

The Design Index component for residential design sank 14.2 points in the fourth quarter, indicating the potential for a significant slowdown in this market to start 2017.

## Commercial:

Design for commercial markets slid 12.0 points in the fourth quarter to 45.5. Although the sharp drop in this market may be temporary, it is an indication of a changing trend for commercial construction and the growth of online shopping.

## Education:

Education design retreated 7.9 points, resulting in an even score of 50.0, although this component has enjoyed something of a comeback since the recession. The question now is how much continued support there is for raising education construction bonds and taxes in a slowing economy.

## Health Care:

The health care design component plummeted 16.1 points, likely due in part to the uncertainty of government policy after the elections.

## Industrial:

Industrial construction came in at only 39.3 this quarter. This low point may be indicating the end of a long comeback for this sector since the recession.

## Transportation:

Transportation design slumped 6.7 points yet remains in positive territory at 58.3.

## Heavy/Civil:

Unchanged at 66.7 in the fourth quarter, heavy/civil represents one of the few solid markets in the Index this quarter.

## International:

International design gained 5.0 points this quarter; however, the component score, at 45.5, is still in declining growth mode.



## Construction

### **Construction Business:**

Regarding their own construction business, CIRT respondents continue to see their business as ahead of their overall view of the economy, as this component gained 1.4 points this quarter to 60.7.

### **Private Sector Construction Business:**

The outlook for commercial construction is lower in the near term with an expected uptick for 2017 only to take a sharp drop in the three-year outlook. The outlook for education construction is for much slower growth in the coming year before slipping below 50 in the following years. While the Design Index for health care indicates a weaker outlook, the longer-term outlook for construction is positive through the next three years. The outlook for lodging construction is waning sharply after achieving what appears to be a cyclical peak in mid-2015.

### **Costs of Construction Materials and Labor:**

Although the cost of materials and labor is still expected to go higher in the near term, the rate of growth appears to be slowing this quarter, as the materials cost index gained 7.3 points and labor costs gained just 0.5 points. “Growth” in both components functions as a negative factor for the overall Sentiment Index score.

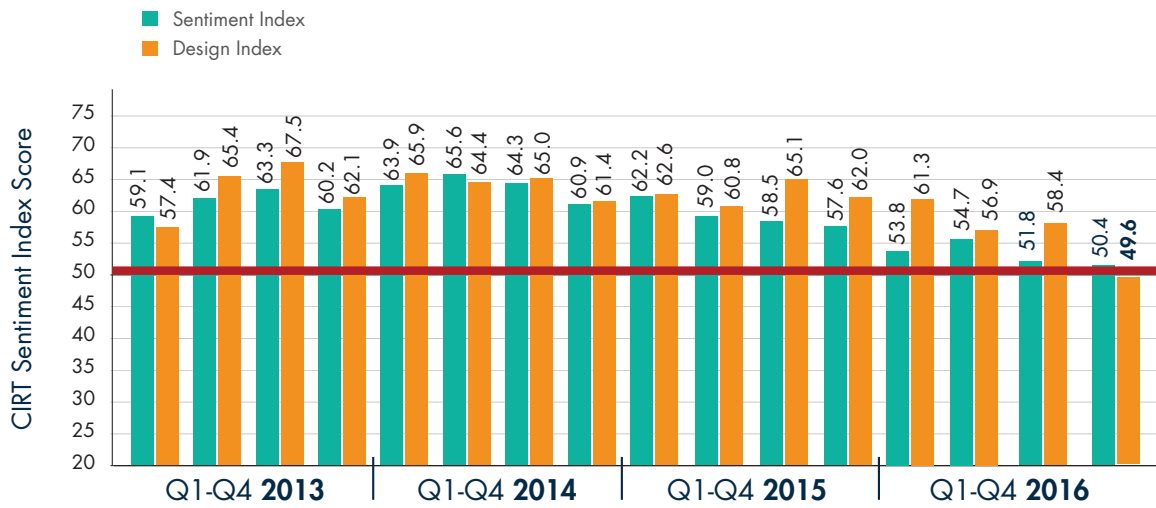
### **Productivity:**

We could say it is good news that the productivity component gained 1.4 points to 48.7 this quarter, but this does not indicate much of a gain for productivity, an area that all contractors continue to struggle with.

# Results of the Fourth Quarter 2016 CIRT Sentiment Index

## EXHIBIT 2

CIRT Sentiment Index Scores:  
Q1 2013 to Q4 2016



(Scores based on a 100-point scale, above 50 indicate expansion, below 50 indicate contraction.)



## Current Issues:

For our current issues this quarter, we asked CIRT members to rank the top-three items in importance, both positive and negative, of a list of top issues concerning expected U.S. economic and business conditions in 2017. (Note: The survey was concluded just before the national elections.)

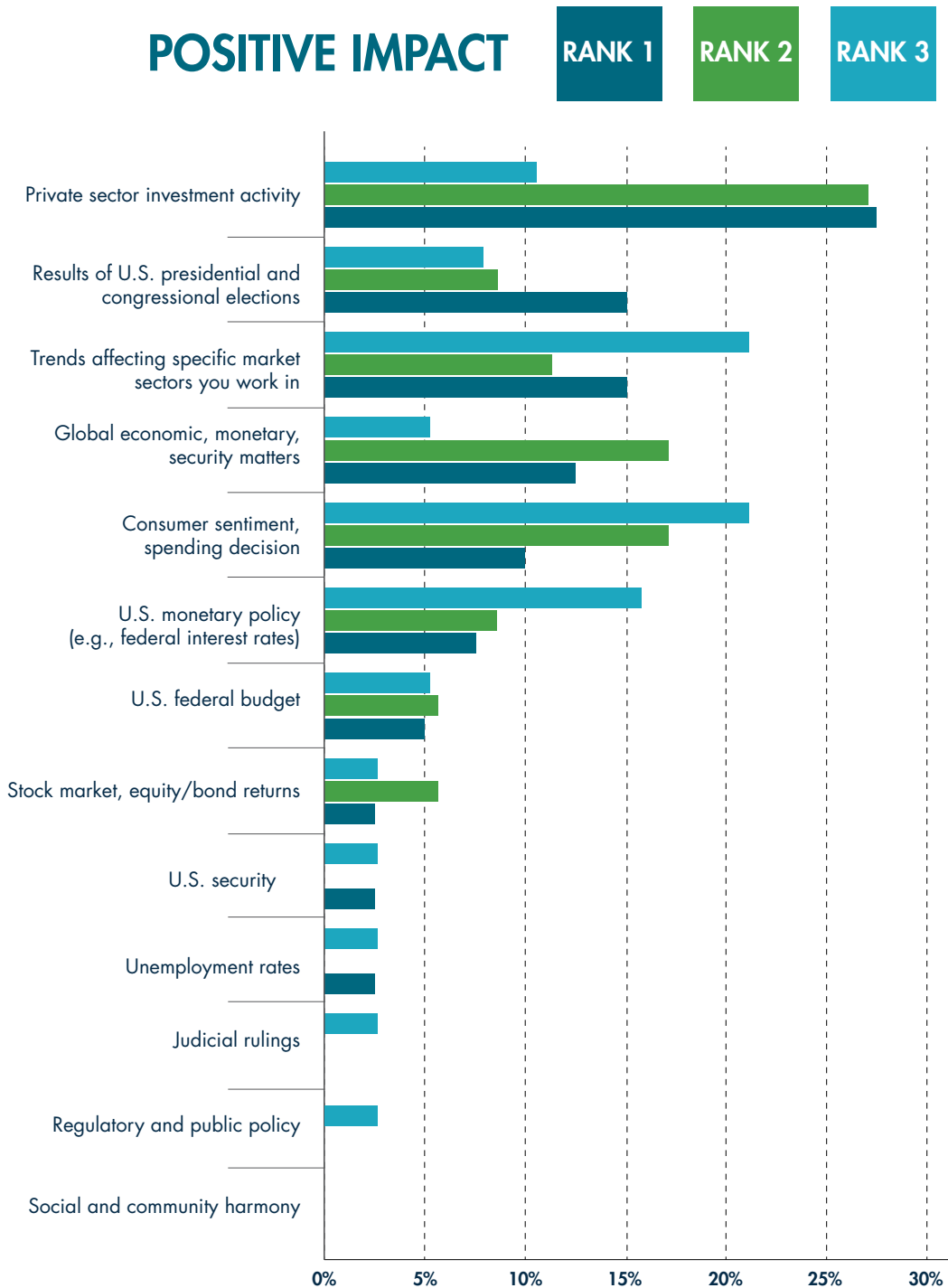
- Private sector investment activity was by far the most important positive issue for business in 2017.
- Expectations from the results of the presidential and congressional elections came in second for potential positive trends.
- Trends affecting specific market sectors CIRT firms work in came in third place; however, global economic, monetary and security matters made a strong showing for No. 4 position, followed closely by consumer sentiment and spending decisions.
- For the top-ranked potential negative outcomes, the results of the presidential and congressional elections came in first place. The question wasn't specific to one political party or another, but about as many respondents expected positive results as negative results from the outcome of the election.
- Global economic, monetary and security matters ranked No. 2 as a potential negative factor when looking ahead for 2017 reflecting the global reach of many of the CIRT membership.
- It was a close decision for the third-ranked item on the list of negative factors for the economy in 2017. We will call it a tie for third as trends affecting specific market sectors and concerns about U.S. monetary policy received the same number of "votes" for first place to have the most negative impact on economic conditions.

The current issues responses may help shed some light on the uneasy long-term outlook for construction markets and the economy. Once we determined the most important economic concerns from our list, we then asked the respondents whether they examine the same list of external issues when planning their strategic and business goals, more specifically, which items normally made it into the planning cycle. For instance, from the survey comments, we heard: "We are building contingency plans should we see a major event causing a major contraction to a geography or sector."

Interestingly, external issues did not appear to be much of a concern for strategic planning; however, many contractors know they need to be mindful of larger societal issues, both domestic and global. On the other hand, they are maintaining a close watch on what may happen in labor (both in terms of immigration laws and availability of U.S. citizens seeking work). While market sector trends, private investment, global economic and security issues seem to be the most immediate and measurable concerns in planning, given the world's social upheaval and political change, everything is connected, and the outcomes are difficult to predict. In the meantime, knowledge of specific market trends where firms work or plan to work, along with private sector investment plans, is among the top factors considered in planning, and often more predictable than global events.

### EXHIBIT 3

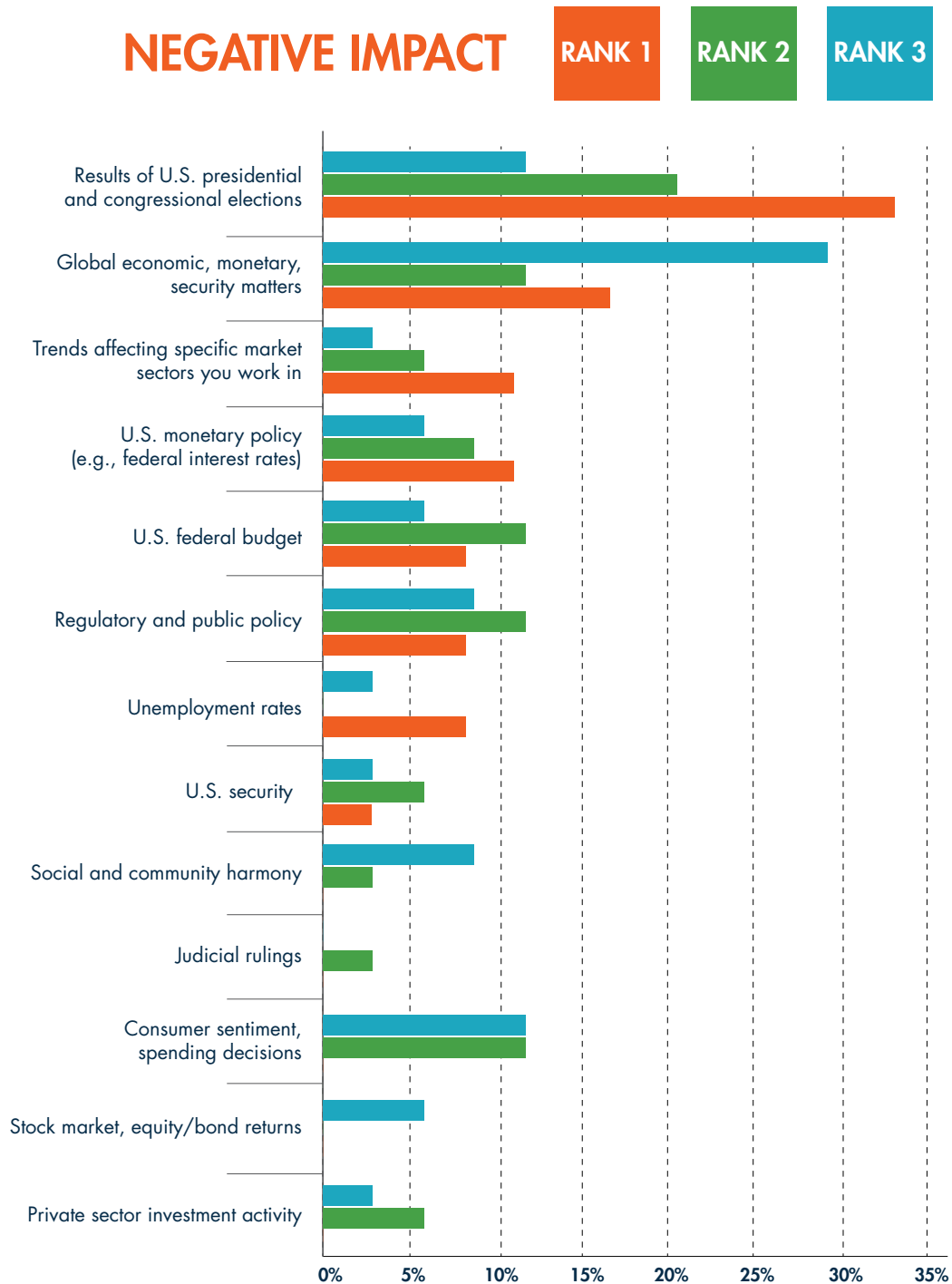
In your view, which of the listed items will likely have the greatest **positive** impact on U.S. economic/business conditions in 2017?

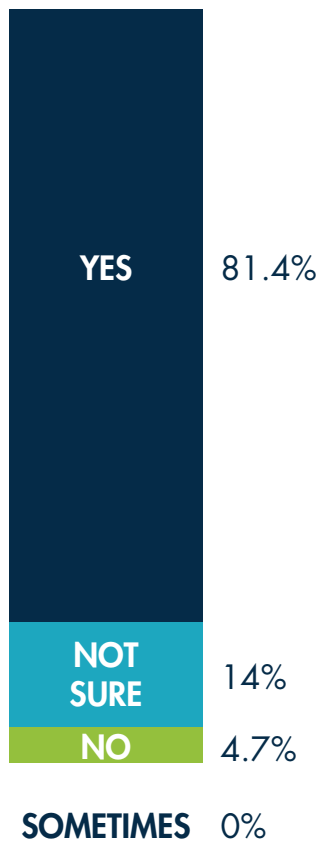




#### EXHIBIT 4

In your view, which of the listed items will likely have the greatest **negative** impact on U.S. economic/business conditions in 2017?



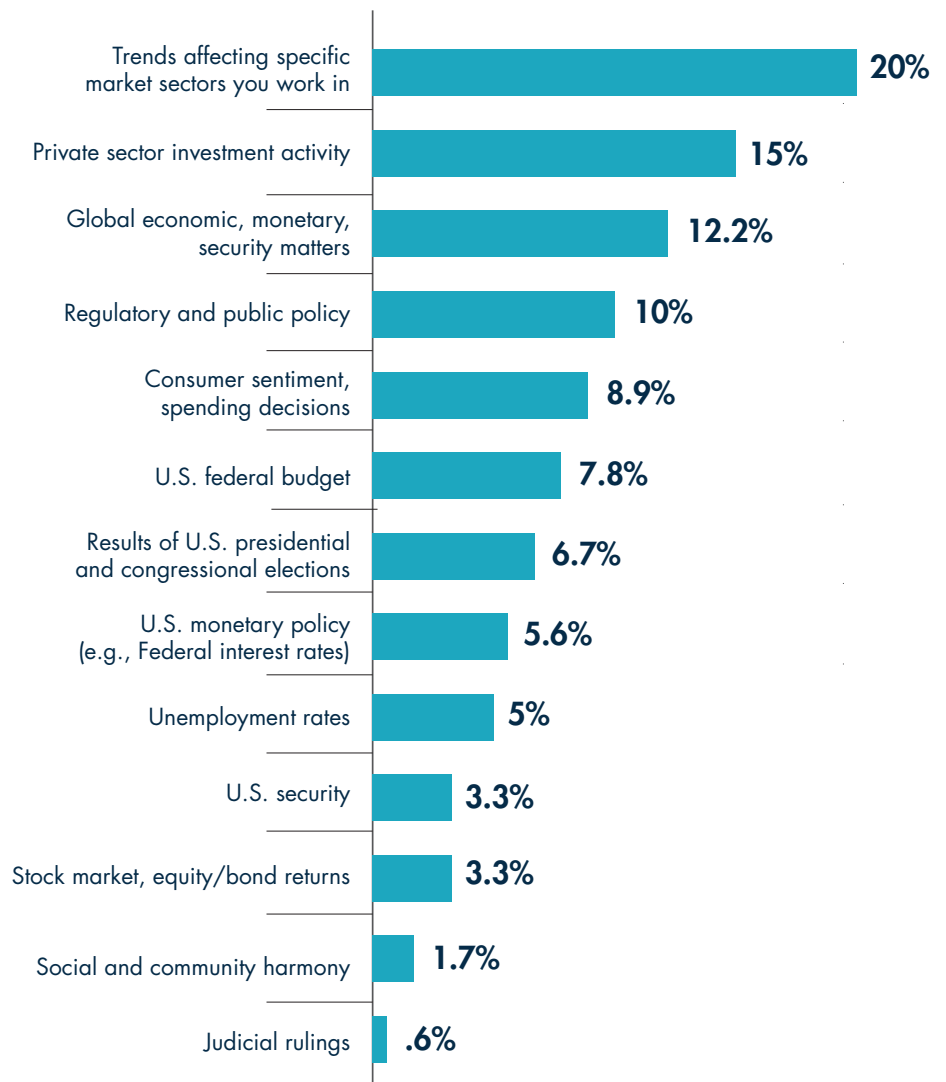


#### EXHIBIT 5

When you review or work on your strategic plan or yearly goals/objectives, do you consider external threats/impacts?

#### EXHIBIT 6

Which external threats/impacts do you consider in your strategic plans and objectives?



## EXHIBIT 6

### Comments: How are external socioeconomic concerns affecting your business strategies and planning?

- Access to labor authorized to work in the U.S. is a daily conversation that affects management decisions. Resolving the illegal immigration issue is a huge shadow over the construction industry.
- Demographic aging and spending habits impact debt and interest rates.
- General workforce remains a big question for ability to grow.
- Hard to determine.
- This affects decisions on regions we are interested in expanding to.
- We are building contingency plans should we see a major event causing a major contraction to a geography or sector.
- We are watching very closely, but do not expect external socioeconomic concerns to have a near-term effect unless there is drastic unrest.

# EXHIBIT 7

## CIRT Sentiment Index Components Detail by Market Sector

	Components Q3 2016				Components Q4 2016			
	Business Outlook - Three Months			CIRT Sentiment Index Component Results Q3 2016	Business Outlook - Three Months			CIRT Sentiment Index Component Results Q4 2016
	Improving over last quarter	Remains the same as last quarter	Worse than last quarter		Improving over last quarter	Remains the same as last quarter	Worse than last quarter	
Commercial	21.4%	75.0%	3.6%	58.9	6.3%	93.8%	0.0%	53.1
Education	21.9%	78.1%	0.0%	60.9	0.0%	100.0%	0.0%	50.0
Health care	40.6%	56.3%	3.1%	68.8	31.8%	68.2%	0.0%	65.9
Lodging	18.5%	63.0%	18.5%	50.0	10.0%	80.0%	10.0%	50.0
Manufacturing	22.2%	70.4%	7.4%	57.4	0.0%	92.9%	7.1%	46.4
Office	20.0%	73.3%	6.7%	56.7	4.3%	82.6%	13.0%	45.7
Industrial/Petrochemical	13.0%	52.2%	34.8%	39.1	6.3%	56.3%	37.5%	34.4
Transportation-Related	13.3%	76.7%	10.0%	51.7	12.5%	87.5%	0.0%	56.3
Public Works/Heavy/Civil	14.7%	73.5%	11.8%	51.5	23.5%	76.5%	0.0%	61.8
Other	25.0%	50.0%	25.0%	50.0	0.0%	50.0%	50.0%	25.0
	Business Outlook - One Year				Business Outlook - One Year			
Commercial	17.2%	62.1%	20.7%	48.3	11.8%	82.4%	5.9%	52.9
Education	35.3%	52.9%	11.8%	61.8	13.0%	82.6%	4.3%	54.3
Health care	32.4%	55.9%	11.8%	60.3	43.5%	52.2%	4.3%	69.6
Lodging	10.3%	58.6%	31.0%	39.7	4.8%	76.2%	19.0%	42.9
Manufacturing	31.0%	48.3%	20.7%	55.2	6.7%	80.0%	13.3%	46.7
Office	9.4%	65.6%	25.0%	42.2	16.7%	70.8%	12.5%	52.1
Industrial/Petrochemical	24.0%	40.0%	36.0%	44.0	29.4%	35.3%	35.3%	47.1
Transportation-Related	31.3%	62.5%	6.3%	62.5	58.8%	35.3%	5.9%	76.5
Public Works/Heavy/Civil	22.9%	71.4%	5.7%	58.6	52.9%	47.1%	0.0%	76.5
Other	25.0%	50.0%	25.0%	50.0	50.0%	0.0%	50.0%	50.0
	Business Outlook - Three Years				Business Outlook - Three Years			
Commercial	25.0%	46.4%	28.6%	48.2	0.0%	37.5%	62.5%	18.8
Education	34.4%	43.8%	21.9%	56.3	13.6%	59.1%	27.3%	43.2
Health care	46.9%	40.6%	12.5%	67.2	36.4%	59.1%	4.5%	65.9
Lodging	18.5%	44.4%	37.0%	40.7	0.0%	40.0%	60.0%	20.0
Manufacturing	55.6%	25.9%	18.5%	68.5	21.4%	64.3%	14.3%	53.6
Office	20.7%	55.2%	24.1%	48.3	4.3%	47.8%	47.8%	28.3
Industrial/Petrochemical	60.9%	26.1%	13.0%	73.9	62.5%	25.0%	12.5%	75.0
Transportation-Related	63.3%	30.0%	6.7%	78.3	75.0%	18.8%	6.3%	84.4
Public Works/Heavy/Civil	64.7%	32.4%	2.9%	80.9	58.8%	29.4%	11.8%	73.5
Other	75.0%	25.0%	0.0%	87.5	50.0%	50.0%	0.0%	75.0

### CIRT Index Scores

> 50 indicate growth (better)  
< 50 indicate slowing (worse)

\* A note on the use of the diffusion index: Do not interpret diffusion index values in the same manner as averages, because a simple increase or decrease in a diffusion index does not necessarily imply an improving or declining result. For example, if a diffusion index moves from 31 last quarter to 35 this quarter, it does not imply the market has improved. A reading greater than 50 indicates improving or expansion, 50 indicates remaining the same, and lower than 50 indicates worse or contracting. Therefore, if a reading goes from 31 to 35, then the result still implies a decline from the previous quarter, because 35 is lower than 50; but the decline is not as great as the previous decline, because 35 is greater than 31. As another example, if the diffusion index changes from 31 to 65, it implies improvement over the previous quarter, not because 65 is greater than 31, but because 65 is greater than 50.

## EXHIBIT 8

### CIRT Sentiment Design Index Components — Business Outlook Summary

Compared with last quarter, what are your expectations for projects in the following markets for design services in the next year?

Design Index Components	Q2 2016				Q3 2016				Q4 2016			
	Improving over last quarter	Remains the same as last quarter	Worse than last quarter	Overall Component Score Q2 2016	Improving over last quarter	Remains the same as last quarter	Worse than last quarter	Overall Component Score Q3 2016	Improving over last quarter	Remains the same as last quarter	Worse than last quarter	Overall Component Score Q4 2016
Consulting planning	32.1%	60.7%	7.1%	62.5	23.8%	76.2%	0.0%	61.9	14.3%	78.6%	7.1%	53.6
Pre-design work	37.9%	55.2%	6.9%	65.5	36.4%	63.6%	0.0%	68.2	12.5%	81.3%	6.3%	53.1
Commercial	19.2%	73.1%	7.7%	55.8	20.0%	75.0%	5.0%	57.5	0.0%	90.9%	9.1%	45.5
Residential	23.8%	61.9%	14.3%	54.8	18.8%	68.8%	12.5%	53.1	0.0%	77.8%	22.2%	38.9
Education	16.7%	83.3%	0.0%	58.3	21.1%	73.7%	5.3%	57.9	0.0%	100.0%	0.0%	50.0
Health care	22.7%	72.7%	4.5%	59.1	33.3%	55.6%	11.1%	61.1	10.0%	70.0%	20.0%	45.0
Industrial	13.0%	60.9%	26.1%	43.5	13.0%	78.3%	8.7%	52.2	7.1%	64.3%	28.6%	39.3
Transportation	45.8%	50.0%	4.2%	70.8	35.0%	60.0%	5.0%	65.0	16.7%	83.3%	0.0%	58.3
Heavy/Civil	26.1%	65.2%	8.7%	58.7	33.3%	66.7%	0.0%	66.7	33.3%	66.7%	0.0%	66.7
International	15.0%	50.0%	35.0%	40.0	9.5%	61.9%	28.6%	40.5	0.0%	90.9%	9.1%	45.5
Design Firms Index				<b>56.9</b>				<b>58.4</b>				<b>49.6</b>

## EXHIBIT 9

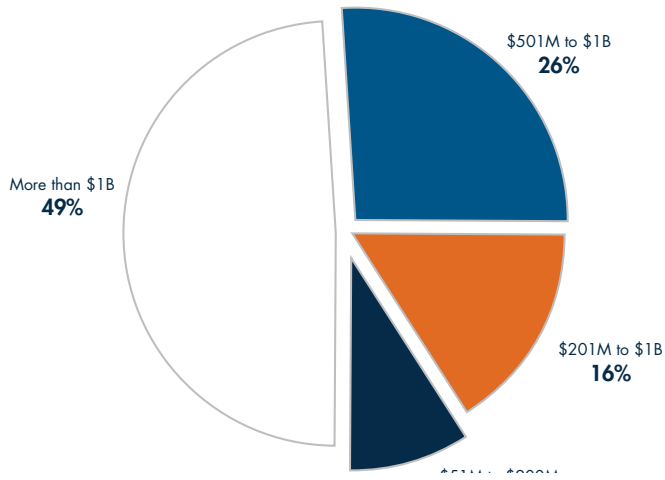
### CIRT Sentiment Index Components — Comparison of Results: Q4 of 2015 to Q3 of 2016

CIRT Scores > 50 indicate growth (better) < 50 indicate slowing (worse)	CIRT Sentiment Index Components Q1 2016	CIRT Sentiment Index Components Q2 2016	CIRT Sentiment Index Components Q3 2016	CIRT Sentiment Index Components Q4 2016
The overall economy	49.1	57.8	51.7	51.2
The overall economy where we do business	52.7	58.8	53.3	52.3
Respondents' construction business	62.3	64.0	59.3	60.7
The residential building construction market where panelists do business	56.1	55.8	56.3	50.0
The nonresidential building construction market where panelists do business	60.5	77.3	56.1	56.4
Cost of construction materials	41.2	37.5	28.6	35.9
Cost of labor	19.8	19.4	20.5	21.1
Productivity	49.0	50.0	47.3	48.7
Expected change in backlog	62.5	62.1	55.9	47.6
Approximate current signed backlog in months	12.0	12.0	14.0	15.0

\$50M or Less  
0%

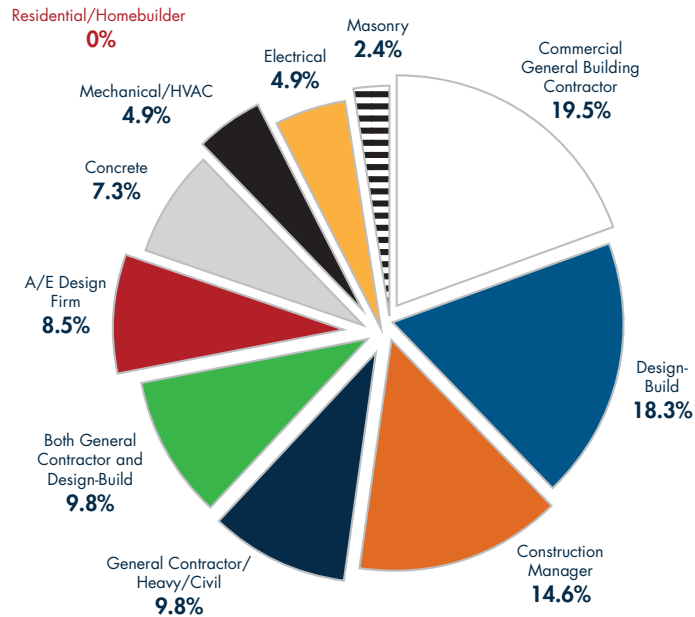
### EXHIBIT 10

Size of the  
Organization  
in Annual Revenue



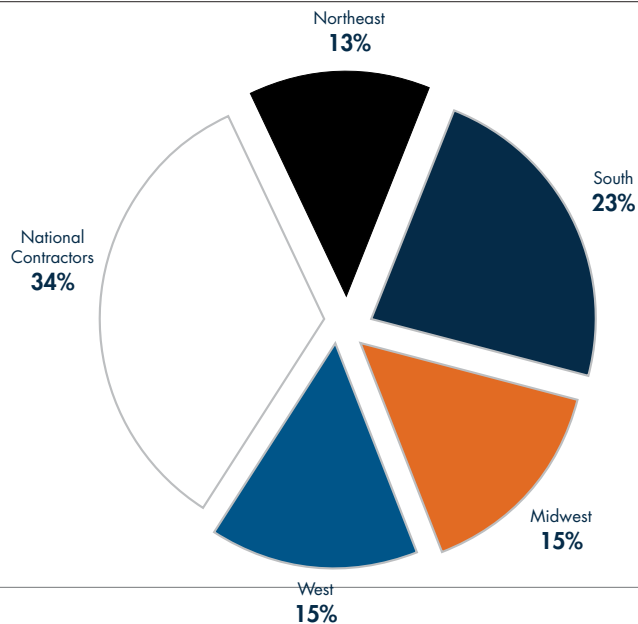
### EXHIBIT 11

Type of Contracting  
Business



### EXHIBIT 12

Primary Region in  
Which Panelists Work



## EXHIBIT 13

### CIRT Sentiment Index Results: Q2 2016 and Q3 2016

	CIRT Sentiment Index - Results Q3 2016				CIRT Sentiment Index - Results Q4 2016			
	Improving over last quarter	Staying the same as last quarter	Worse compared with last quarter	CIRT components Q3 2016	Improving over last quarter	Staying the same as last quarter	Worse compared with last quarter	CIRT components Q4 2016
The overall economy	15.3%	72.9%	11.9%	51.7	4.8%	92.9%	2.4%	51.2
The overall economy where we do business	13.3%	80.0%	6.7%	53.3	9.3%	86.0%	4.7%	52.3
Panelists' construction business	20.3%	78.0%	1.7%	59.3	23.8%	73.8%	2.4%	60.7
The residential building construction market where panelists do business	20.0%	72.5%	7.5%	56.3	17.9%	64.3%	17.9%	50.0
The nonresidential building construction market where panelists do business	21.1%	70.2%	8.8%	56.1	20.5%	71.8%	7.7%	56.4

	High	Median	Low		High	Median	Low	
Approximate current signed backlog in months	40.0	14.0	3.0		48.0	15.0	4.0	

	Grow faster than last quarter	Stay about the same as last quarter	Shrink compared to last quarter		Grow faster than last quarter	Stay about the same as last quarter	Shrink compared to last quarter	
Expected change in backlog	22%	68%	10%	55.9	12%	71%	17%	47.6

	Higher than last quarter	Same as last quarter	Lower than last quarter		Higher than last quarter	Same as last quarter	Lower than last quarter	
Cost of construction materials	43%	57%	0%	28.6	31%	67%	3%	35.9
Cost of labor	59%	41%	0%	20.5	58%	42%	0%	21.1

	Improving over last quarter	Same as last quarter	Declining compared to last quarter		Improving over last quarter	Same as last quarter	Declining compared to last quarter	
Productivity	4%	87%	9%	47.3	5%	87%	8%	48.7

## EXHIBIT 14

### CIRT Sentiment Index Components: Q3 2015 to Q3 2016 Business Outlook Summary by Market Sector

#### CIRT Scores

> 50 indicate growth (better)  
< 50 indicate slowing (worse)

Sector	Results Q1 2016			Results Q2 2016			Results Q3 2016			Results Q4 2016		
	3 Months	1 Year	3 Years	3 Months	1 Year	3 Years	3 Months	1 Year	3 Years	3 Months	1 Year	3 Years
Commercial	52.1	52.1	47.7	61.1	51.9	48.1	58.9	48.3	48.2	53.1	52.9	18.8
Education	65.5	70.7	53.7	58.6	54.3	52.9	60.9	61.8	56.3	50.0	54.3	43.2
Health Care	63.8	62.1	55.4	59.4	60.9	62.5	68.8	60.3	67.2	65.9	69.6	65.9
Lodging	45.7	52.2	52.3	58.6	43.3	40.0	50.0	39.7	40.7	50.0	42.9	20.0
Manufacturing	47.6	47.5	41.7	52.6	50.0	57.9	57.4	55.2	68.5	46.4	46.7	53.6
Office	53.3	53.3	37.5	53.0	50.0	42.2	56.7	42.2	48.3	45.7	52.1	28.3
Industrial/Petrochemical	40.5	36.8	58.3	38.6	43.2	59.1	39.1	44.0	73.9	34.4	47.1	75.0
Transportation-Related	59.7	72.6	85.0	59.1	65.2	68.8	51.7	62.5	78.3	56.3	76.5	84.4
Public Works/Heavy/Civil	57.1	67.9	80.4	56.1	56.1	67.7	51.5	58.6	80.9	61.8	76.5	73.5
Other	62.5	62.5	62.5	57.1	62.5	75.0	50.0	50.0	87.5	25.0	50.0	75.0



# About FMI

For over 60 years, FMI has been the leading **management consulting and investment banking** firm dedicated exclusively to **engineering and construction, infrastructure and the built environment**.

FMI serves all sectors of the industry as a trusted advisor. More than six decades of context, connections and insights lead to transformational outcomes for our clients and the industry.

## Sector Expertise

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- Oil and Gas
- Private Equity
- Owners

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### Houston

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### Phoenix

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Scottsdale, AZ 85255  
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### Raleigh (headquarters)

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