

2017

Second Quarter Report

CIRT Sentiment Index

EXECUTIVE SUMMARY

The overall index appears to have stabilized. While there was some shifting of the components that make up the CIRT Sentiment Index this quarter, the overall Index was essentially unchanged from last quarter, slipping just 0.3 points. However, the CIRT Design Index lost 2.3 points to 64.5. The boost in optimism in the first quarter continues, but there are some signs of weakness in markets such as commercial construction, transportation and industrial/petrochemical. The market to watch right now is public works/heavy civil where the current score for the next year is a bullish 83.3, strengthening to 87.9 in three years. It appears clear that the respondents must be factoring in the possibility that the Trump administration and Congress will pass some form of Trump's proposed ambitious infrastructure initiative.

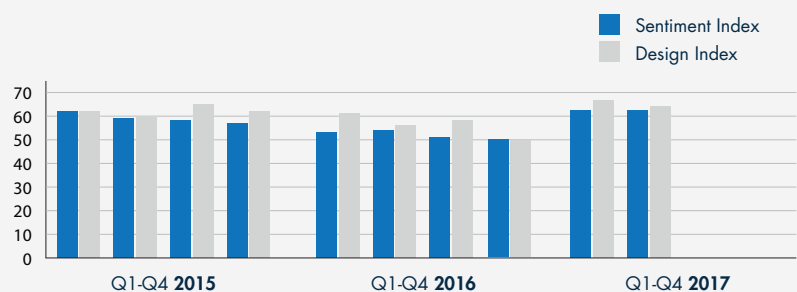
continued ...

CURRENT SUMMARY

Overall economy	DOWN
Overall economy where we do business	UP
Our construction business	UP
Residential building construction market where we do business	UP
Nonresidential building construction market where we do business	UP
Our expected backlog	NO CHANGE
Cost of construction materials	HIGHER
Cost of labor	HIGHER
Productivity	HIGHER

EXHIBIT 1

CIRT Sentiment Index Scores from Q1 2015 to Q2 2017



Current CIRT Sentiment Index Reading | Q2 2017

62.4

Current CIRT Design Index Reading | Q2 2017

64.5

(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.

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 and/or Phil Warner, research consultant with FMI Corporation, at pwarnar@fminet.com or call 919-785-9357.

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.

Executive Summary *continued ...*

To get a better idea of CIRT Sentiment Index respondents' expectations for a plan that could invest a trillion dollars in America's infrastructure over a decade, we used our Current Issues questions this quarter. In a series of questions, we explored the likelihood that a plan will be in place within the next year and how much it might add to expected construction markets. Such a large initiative also begs the question of where the extra employees needed to complete the work will come from, considering that the industry has been struggling to find the necessary qualified help now.

In brief, the majority of respondents, 60%, are uncertain as to when such an initiative will be implemented, while 29% expect it within the next year. Thirty-three percent of respondents expect the additional work could add 5% to 10% in terms of increased annual revenue for their firms, given the primary focus of the spending is on bridges, tunnels and highways. The data from this survey also show an expected increase in labor costs that will force the industry to be more efficient by implementing new technologies and processes to complete the work.

CIRT Sentiment Index, Second Quarter 2017 Highlights

Overall Economy:

At 71.6 this Index component for the overall economy lost 2.7 points from last quarter. Nonetheless, it is still solidly in optimistic territory and an astonishing 20.4 points higher than Q4 2016.

Overall Economy Where Respondents Do Business:

The CIRT membership responding this quarter sees the economy where it does business as strong at 71.6, a gain of just 0.5 over last quarter.

CIRT Design Index Components

Consulting Planning:

The CIRT Design Index component for consulting planning slipped 4.1 points in the second quarter, but still managed to register a strong growth sign at 68.5.

Pre-design work:

The outlook for pre-design work dropped 8.8 points to 63.6, just 1.2 points below last quarter's score.

Residential:

Residential design work, which had dropped to just 38.9 in the fourth quarter of 2016, is now holding steady at 50.0.

Commercial:

At 63.6, design work for commercial projects changed little from last quarter and remains in positive territory.

Education:

Education design work lost 3.8 points to 65.8 in the second quarter.

Health Care:

Health care design project work improved to a strong 70.5 this quarter.

Industrial:

Industrial design work lost 2.7 points in the second quarter after gaining 25.9 points from the fourth to first quarter.

Transportation:

The Design Index component score for transportation slipped to 71.4 points from 78.0 last quarter.

Heavy/Civil:

Heavy/civil design work fell back to 60.0, a loss of 9.6 points over last quarter.

International:

International design work was the leading gainer this quarter, jumping 10.1 points to 62.5 in the second quarter.



Construction

Construction Business:

Respondents' construction business index improved to 70.2 in the second quarter, continuing a positive trend.

Private Sector Construction Business:

While the Sentiment Index outlook for commercial construction remains positive in the near term, the longer view three years out indicates a sharp drop for work in these markets. The outlook for education and health care markets is much more positive than for commercial markets, showing signs for slow, but steady growth. The outlook for lodging construction continues to be solid in the next year, with an expected slowdown sometime after that period. The expectations for office construction have improved in the last two quarters, but that improvement may be short-lived.

Costs of Construction Materials and Labor:

Materials and labor costs continue to increase as the index for both Index components drops, losing 1.9 points for materials and 6.6 points for labor costs. The cost of construction inputs will likely continue to rise as the economy remains strong and labor scarce. (Rising materials and labor costs act as a drag on the overall Index score.)

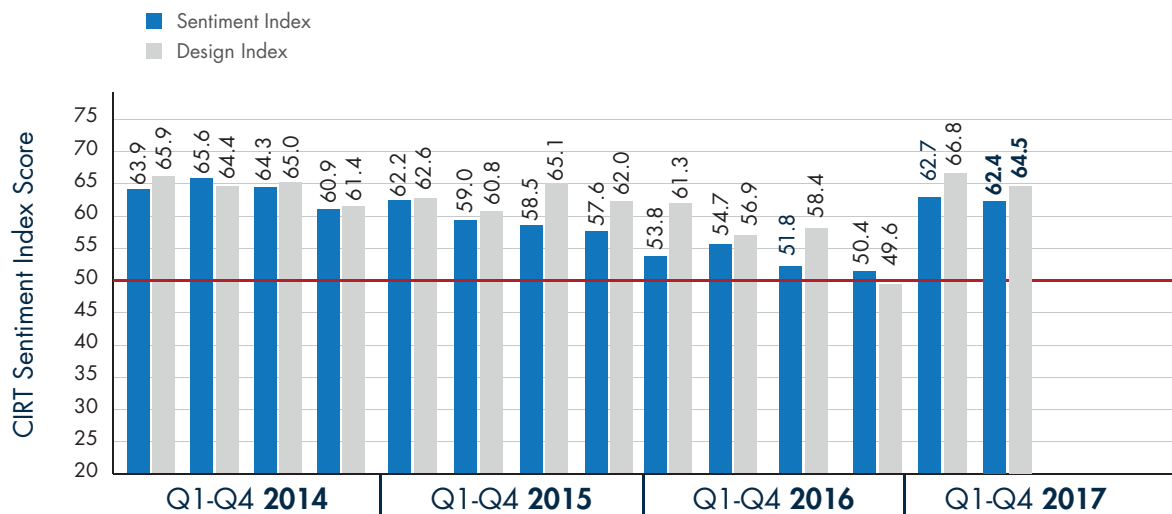
Productivity:

An unexpected improvement of 3.5 points to 55.4 for productivity this quarter is a welcome sign, especially if this improvement can be maintained.

Results of the Second Quarter 2017 CIRT Sentiment Index

EXHIBIT 2

CIRT Sentiment Index Scores:
Q1 2014 to Q1 2017



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

Current Issues:

Our Current Issues questions this quarter focused on President Trump's proposed ambitious infrastructure initiative that would invest a trillion dollars over 10 years. With no detailed bill yet on the table, the responses to these questions are hypothetical and forward-looking only. But these responses help to put some things in perspective, especially for our final two questions about where respondents think the spending will be allotted and their current thinking about whether the industry has, or will have, the needed workers to perform the added work. The top-two expected investment target areas were bridges/tunnels and highways. Other areas for needed infrastructure investment were expected to receive very little attention in a new infrastructure program. These observations concur with FMI's Outlook forecast for Q1 2017, especially for areas like water supply and water/wastewater construction.

Several respondents commented that infrastructure is badly needed in America. However, unlike the programs of the previous administration, when the country wanted to get people back to work to pull the

country out of the recession, no one seems to be scrambling to find “shovel-ready” projects these days. Several sources like the U.S. Treasury Infrastructure Report for the Build America Investment Initiative have detailed a list of large projects they think could help America economically, but few seem to have devoted much time considering labor issues, especially given much of the current discussion is focused on increasing jobs as much as it is on improving infrastructure.

How would adding (or even just expanding to) an average of \$100 billion a year in public works for 10 years affect employment concerns in the design/construction industry? The good news is that 22.9% of respondents believe it will help recruit people to the industry, because it will illustrate there is a greater likelihood of sustained work in the sector. On the other hand, 24.8% of respondents noted that the increased spending will put a strain on an already thin pool of potential qualified workers, thereby driving up the cost of labor. Right now, 16.2% of the CIRT membership that answered the survey do not believe the industry is ready to ramp up for the additional spending; and only 10.5% deem they are—or will be—ready for the added work. If and when the trillion-dollar initiative is put in place, it will likely result in spot labor shortages as well as potentially exacerbating workforce needs. In any event, it will force the industry to be more productive and adapt new process and technologies, while focusing the nation’s attention on the value and desirability of modern infrastructure to support economic vitality and competitiveness.

EXHIBIT 3

President Trump has outlined an ambitious infrastructure initiative. When do you expect to see the impact of this initiative implemented or growth show up in your market segment?

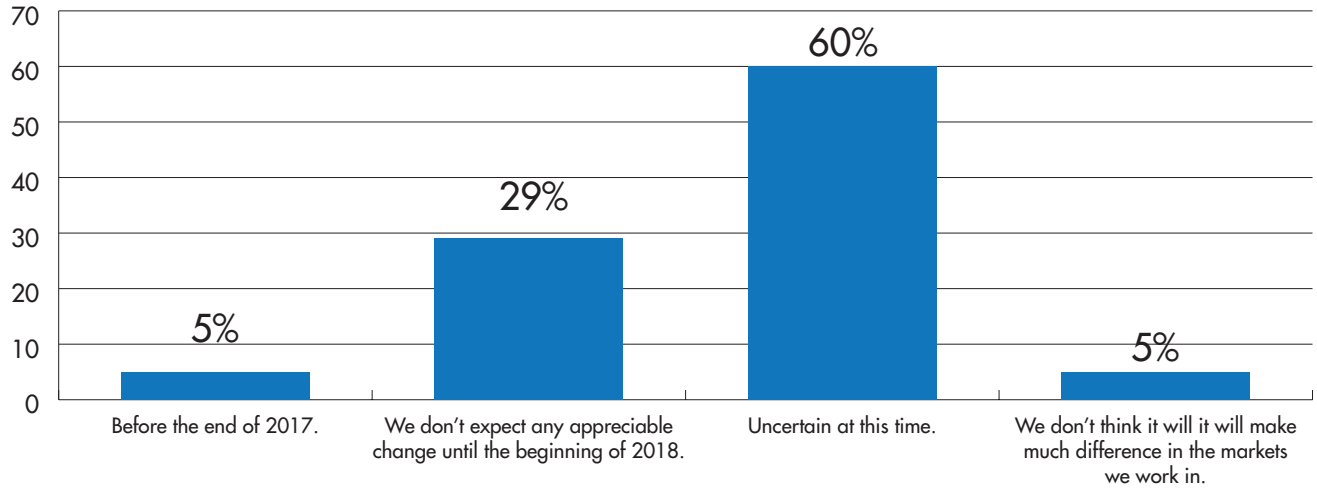


EXHIBIT 4

Assuming an infrastructure initiative will be implemented within the next year, how much do you expect the new spending will add to your annual revenue? (as a % of current revenue)

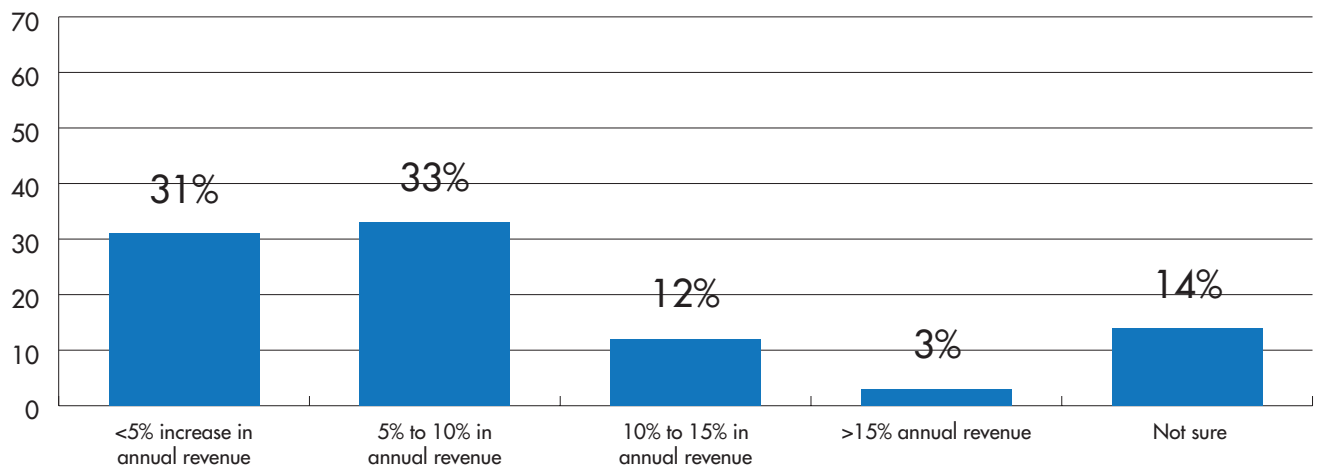


EXHIBIT 5

Which infrastructure market do you expect will get most of the new investment from an infrastructure initiative? (Please choose just one of the following.)

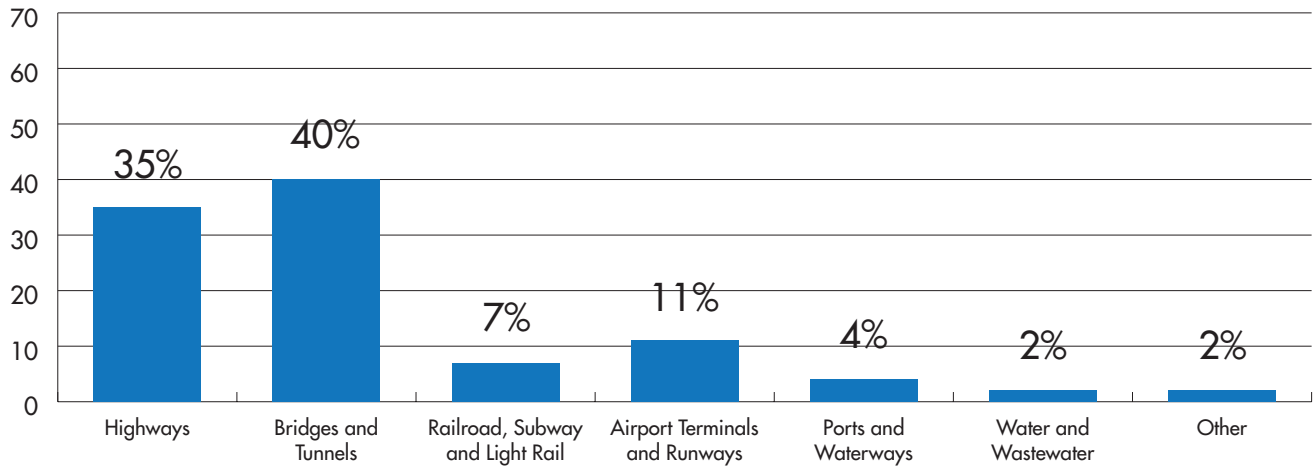
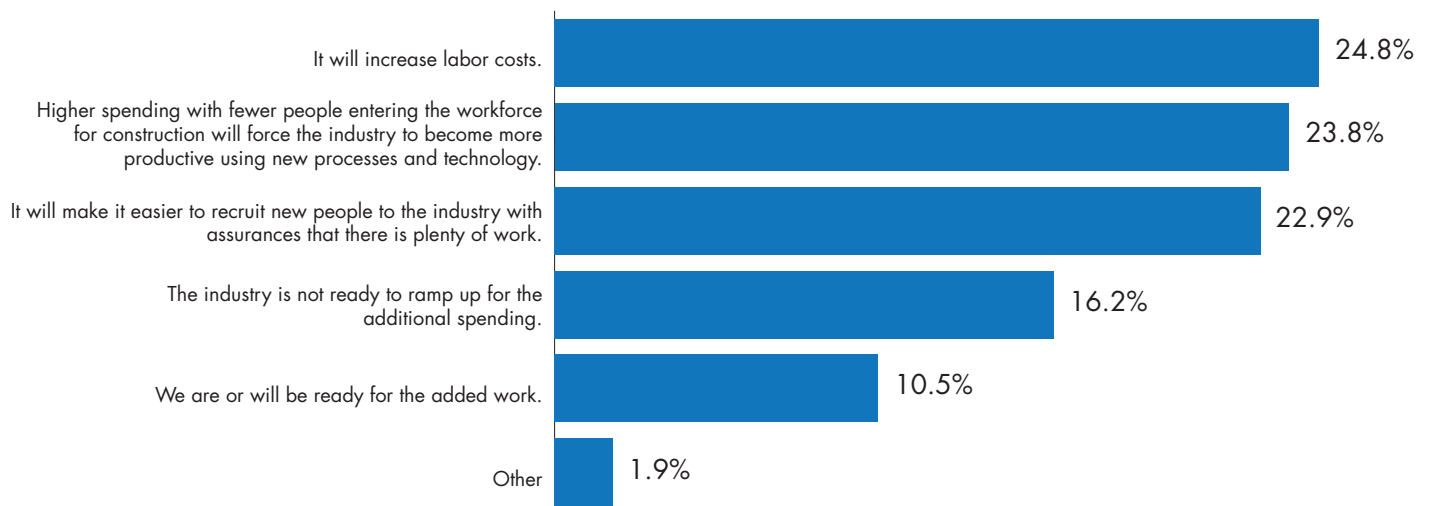


EXHIBIT 6

Over the past few years and for 2017, we have consistently heard concerns about hiring enough new people with the right skills in the construction industry. How would adding an average of \$100 billion a year for 10 years affect employment concerns in the construction industry?





Comments on Biggest Challenges for 2017:

- Between the infrastructure spending and immigration, I feel that labor will be more expensive. The capital markets will have understood this.
- Cautiously optimistic, but without a bill this year, the optimism will fade.
- Good discussions ongoing, but very little actual action. Time will tell.
- Infrastructure spend is crucial for continued economic growth, so as an industry we need to find ways to tackle this added work. Being rated D⁺ is unacceptable.
- The influx of new work will allow fees and margins to improve by increasing demand with a constrained supply.
- The workforce shortage will become even more challenging.

EXHIBIT 7

CIRT Sentiment Index Components Detail by Market Sector

	Components Q1 2017				Components Q2 2017			
	Business Outlook - Three Months			CIRT Sentiment Index Component Results Q1 2017	Business Outlook - Three Months			CIRT Sentiment Index Component Results Q2 2017
	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	28.0%	72.0%	0.0%	64.0	14.8%	85.2%	0.0%	57.4
Education	22.9%	74.3%	2.9%	60.0	25.0%	75.0%	0.0%	62.5
Health care	25.8%	74.2%	0.0%	62.9	30.3%	63.6%	6.1%	62.1
Lodging	18.5%	63.0%	18.5%	50.0	29.6%	51.9%	18.5%	55.6
Manufacturing	30.4%	60.9%	8.7%	60.9	36.0%	64.0%	0.0%	68.0
Office	20.0%	70.0%	10.0%	55.0	27.3%	63.6%	9.1%	59.1
Industrial/Petrochemical	30.4%	60.9%	8.7%	60.9	42.3%	50.0%	7.7%	67.3
Transportation-related	35.1%	62.2%	2.7%	66.2	28.2%	66.7%	5.1%	61.5
Public Works/Heavy/Civil	33.3%	60.6%	6.1%	63.6	23.3%	73.3%	3.3%	60.0
Other	33.3%	66.7%	0.0%	66.7	80.0%	20.0%	0.0%	90.0
	Business Outlook - One Year				Business Outlook - One Year			
Commercial	46.2%	53.8%	0.0%	73.1	14.8%	81.5%	3.7%	55.6
Education	38.9%	50.0%	11.1%	63.9	53.1%	40.6%	6.3%	73.4
Health care	37.5%	59.4%	3.1%	67.2	45.5%	51.5%	3.0%	71.2
Lodging	21.4%	57.1%	21.4%	50.0	29.6%	51.9%	18.5%	55.6
Manufacturing	54.2%	37.5%	8.3%	72.9	41.7%	54.2%	4.2%	68.8
Office	29.0%	58.1%	12.9%	58.1	36.4%	54.5%	9.1%	63.6
Industrial/Petrochemical	70.8%	25.0%	4.2%	83.3	53.8%	42.3%	3.8%	75.0
Transportation-related	81.1%	18.9%	0.0%	90.5	61.5%	28.2%	10.3%	75.6
Public Works/Heavy/Civil	72.7%	27.3%	0.0%	86.4	73.3%	20.0%	6.7%	83.3
Other	66.7%	33.3%	0.0%	83.3	83.3%	16.7%	0.0%	91.7
	Business Outlook - Three Years				Business Outlook - Three Years			
Commercial	32.0%	48.0%	20.0%	56.0	8.0%	48.0%	44.0%	32.0
Education	38.2%	41.2%	20.6%	58.8	41.9%	48.4%	9.7%	66.1
Health care	43.3%	53.3%	3.3%	70.0	48.4%	48.4%	3.2%	72.6
Lodging	14.8%	55.6%	29.6%	42.6	16.0%	52.0%	32.0%	42.0
Manufacturing	43.5%	43.5%	13.0%	65.2	39.1%	56.5%	4.3%	67.4
Office	33.3%	30.0%	36.7%	48.3	22.6%	45.2%	32.3%	45.2
Industrial/Petrochemical	82.6%	13.0%	4.3%	89.1	62.5%	29.2%	8.3%	77.1
Transportation-related	94.7%	5.3%	0.0%	97.4	65.8%	23.7%	10.5%	77.6
Public Works/Heavy/Civil	88.2%	8.8%	2.9%	92.6	75.9%	24.1%	0.0%	87.9
Other	66.7%	33.3%	0.0%	83.3	50.0%	33.3%	16.7%	66.7

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	Q4 2016				Q1 2017				Q2 2017			
		Remains the same as last quarter	Worse than last quarter	Overall Component Score Q4 2017	Improving over last quarter	Remains the same as last quarter	Worse than last quarter	Overall Component Score Q1 2017	Improving over last quarter	Remains the same as last quarter	Worse than last quarter	Overall Component Score Q2 2017
Consulting planning	14.3%	78.6%	7.1%	53.6	50.0%	46.7%	3.3%	73.3	38.5%	61.5%	0.0%	69.2
Pre-design work	12.5%	81.3%	6.3%	53.1	57.6%	39.4%	3.0%	77.3	40.7%	55.6%	3.7%	68.5
Commercial	0.0%	90.9%	9.1%	45.5	37.0%	55.6%	7.4%	64.8	31.8%	63.6%	4.5%	63.6
Residential	0.0%	77.8%	22.2%	38.9	18.2%	63.6%	18.2%	50.0	0.0%	100.0%	0.0%	50.0
Education	0.0%	100.0%	0.0%	50.0	39.1%	60.9%	0.0%	69.6	31.6%	68.4%	0.0%	65.8
Health care	10.0%	70.0%	20.0%	45.0	34.8%	65.2%	0.0%	67.4	40.9%	59.1%	0.0%	70.5
Industrial	7.1%	64.3%	28.6%	39.3	39.1%	52.2%	8.7%	65.2	34.8%	56.5%	8.7%	63.0
Transportation	16.7%	83.3%	0.0%	58.3	60.0%	36.0%	4.0%	78.0	42.9%	57.1%	0.0%	71.4
Heavy/Civil	33.3%	66.7%	0.0%	66.7	47.8%	43.5%	8.7%	69.6	20.0%	80.0%	0.0%	60.0
International	0.0%	90.9%	9.1%	45.5	23.8%	57.1%	19.0%	52.4	25.0%	75.0%	0.0%	62.5
Design Firms Index				49.6				66.8				64.5

EXHIBIT 9

CIRT Sentiment Index Components — Comparison of Results: Q3 of 2016 to Q2 of 2017

CIRT Scores

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

	CIRT Sentiment Index Components Q2 2016	CIRT Sentiment Index Components Q3 2016	CIRT Sentiment Index Components Q4 2016	CIRT Sentiment Index Components Q1 2017
The overall economy	51.7	51.2	74.2	71.6
The overall economy where we do business	53.3	52.3	71.1	71.6
Respondents' construction business	59.3	60.7	69.5	70.2
The residential building construction market where panelists do business	56.3	50.0	57.1	60.0
The nonresidential building construction market where panelists do business	56.1	56.4	71.8	72.3
Cost of construction materials	28.6	35.9	26.9	25.0
Cost of labor	20.5	21.1	20.0	13.4
Productivity	47.3	48.7	51.9	55.4
Expected change in backlog	55.9	47.6	65.6	65.5
Approximate current signed backlog in months	14.0	15.0	14.0	14.0

EXHIBIT 10

Size of the Organization in Annual Revenue

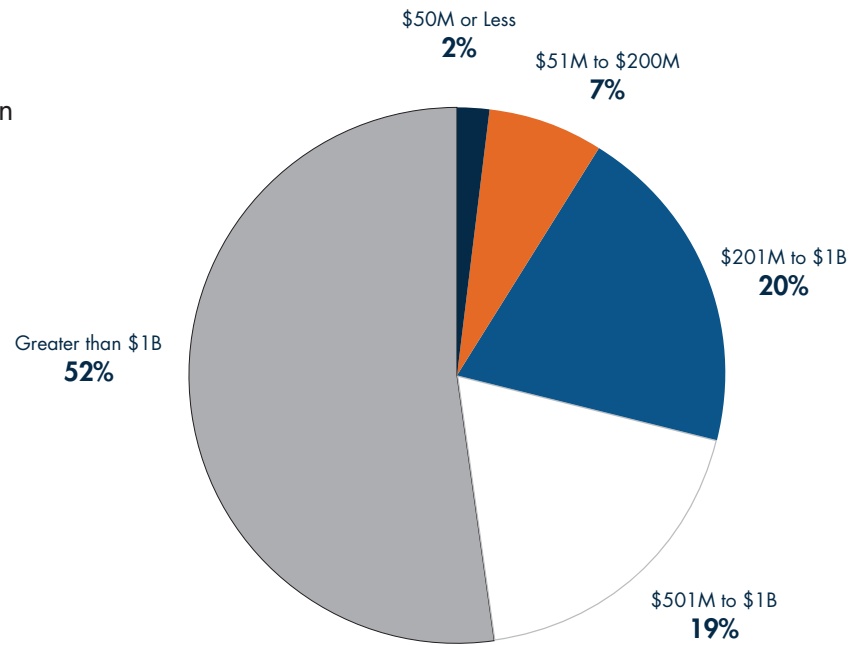


EXHIBIT 11

Type of Contracting Business

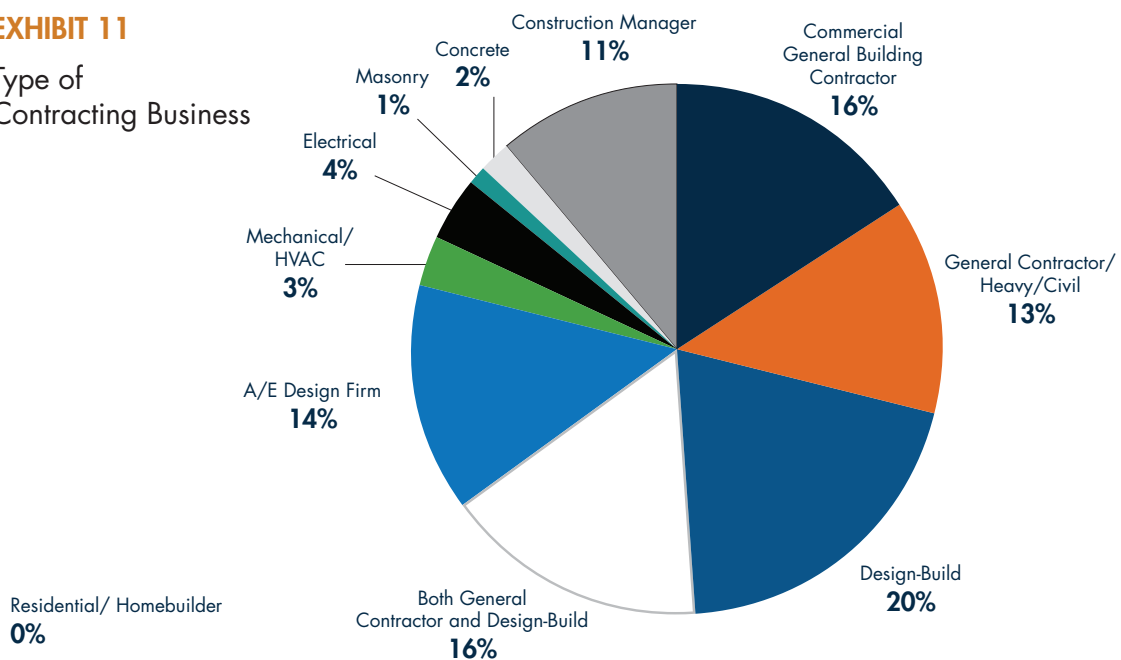


EXHIBIT 12

Primary Region in Which Panelists Work

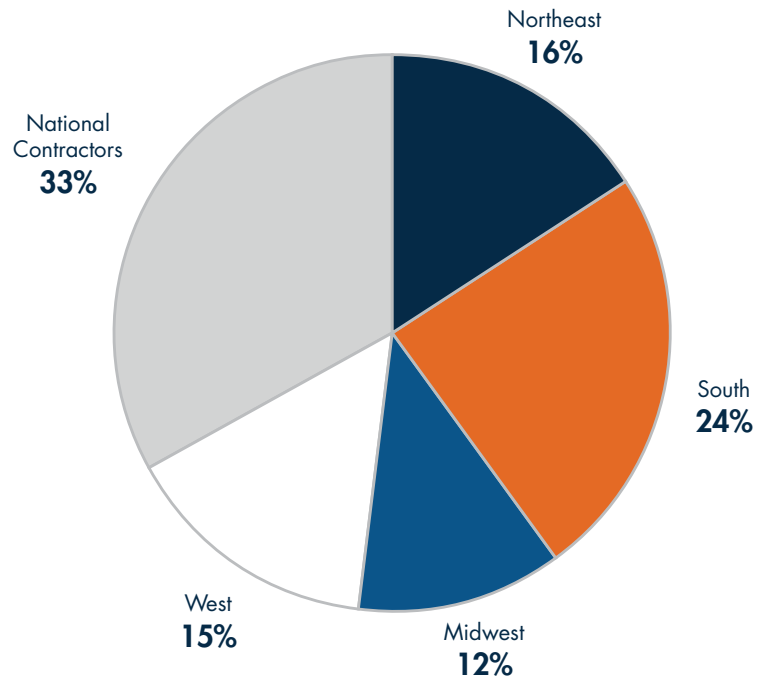


EXHIBIT 13

CIRT Sentiment Index Components — Business Outlook Summary by Market Sector

Sector	Results Q3 2016			Results Q4 2016		
	3 Months	1 Year	3 Years	3 Months	1 Year	3 Years
Commercial	58.9	48.3	48.2	53.1	52.9	18.8
Education	60.9	61.8	56.3	50.0	54.3	43.2
Health care	68.8	60.3	67.2	65.9	69.6	65.9
Lodging	50.0	39.7	40.7	50.0	42.9	20.0
Manufacturing	57.4	55.2	68.5	46.4	46.7	53.6
Office	56.7	42.2	48.3	45.7	52.1	28.3
Industrial/Petrochemical	39.1	44.0	73.9	34.4	47.1	75.0
Transportation-related	51.7	62.5	78.3	56.3	76.5	84.4
Public Works/Heavy/Civil	51.5	58.6	80.9	61.8	76.5	73.5
Other	50.0	50.0	87.5	25.0	50.0	75.0

EXHIBIT 14

CIRT Sentiment Index Results

	CIRT Sentiment Index Results Q1 2017				CIRT Sentiment Index Results Q2 2017			
	Improving over last quarter	Staying the same as last quarter	Worse compared with last quarter	CIRT components Q1 2017	Improving over last quarter	Staying the same as last quarter	Worse compared with last quarter	CIRT components Q2 2017
The overall economy	0.5	0.5	0.0	74.2	0.4	0.6	0.0	71.6
The overall economy where we do business	0.4	0.6	0.0	71.1	0.4	0.6	0.0	71.6
Panelists' construction business	0.4	0.6	0.0	69.5	0.4	0.5	0.0	70.2
The residential building construction market where panelists do business	0.2	0.7	0.1	57.1	0.2	0.7	0.0	60.0
The nonresidential building construction market where panelists do business	0.5	0.5	0.0	71.8	0.5	0.5	0.0	72.3
	High	Median	Low		High	Median	Low	
Approximate current signed backlog in months	48.0	14.0	4.0		50.0	14.0	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	0.4	0.5	0.1	65.6	0.4	0.5	0.1	65.5
	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	0.5	0.5	0.0	26.9	0.5	0.5	0.0	25.0
Cost of labor	0.6	0.4	0.0	20.0	0.7	0.3	0.0	13.4
	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	0.1	0.9	0.1	51.9	0.2	0.8	0.1	55.4

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 clients and the industry.

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