

# ACEC Engineering Business Index

EBI Composite Score

# 68.8

Autumn 2014

Data collection and analysis by  
FMI Corporation

## Industry Leaders Say Engineering Employment on Rebound; *Backlogs Increase Substantially; Private Markets Continue to Strengthen*

U.S. engineering firm CEOs remain encouraged about overall company performance and market trends, and see strong signs of recovery in employment, according to the latest *ACEC Engineering Business Index* (EBI) survey, which charts the health of the engineering industry.

EBI is a diffusion index, consolidating responses from 275 engineering firm leaders on market and firm performance into a single “confidence” number. Any score over 50 indicates positive sentiment.

The third quarter survey (Q3), which was conducted September 17 to October 1, produced a composite score of 68.8, virtually unchanged from 68.9 in the second quarter.

Component Results Q3 2014	Better	Same	Worse	Index Component Score
Current business climate vs. 12 months ago	63.4%	28.2%	8.4%	77.5
Current business climate vs. 6 months ago	48.0%	44.7%	5.9%	70.3
Current business climate vs. 12 months from now	52.8%	43.1%	4.1%	74.3
Profitability expectations for next 6 months	39.6%	54.6%	5.9%	68.8
Profitability expectations for next 12 months	46.5%	47.6%	5.9%	70.3
Profitability expectations for 3 years from now	53.1%	37.3%	9.6%	71.8
	Larger	Same	Smaller	
Backlog vs. 12 months ago	65.0%	20.1%	15.0%	75.0
Backlog vs. 6 months ago	50.0%	40.5%	9.5%	70.3
Backlog expectations for 12 months from now	49.8%	41.8%	8.4%	70.7
<b>OVERALL EBI</b>				<b>68.8</b>

Twelve-month expectations for PUBLIC markets	Better	No Change	Worse	Index Score
Transportation	39.7%	43.1%	17.2%	61.3
Water and Wastewater	43.8%	47.9%	8.3%	67.7
Health Care	30.9%	61.7%	7.4%	61.7
Environmental (Other than water/wastewater)	25.9%	63.6%	10.5%	57.7
Education	25.7%	61.1%	13.1%	56.3
Twelve-month expectations for PRIVATE markets	Better	No Change	Worse	
Land Development	61.7%	35.6%	2.7%	79.5
Energy and Power	56.1%	40.9%	3.0%	76.5
Buildings—Commercial	53.1%	41.5%	5.3%	73.9
Industrial/Manufacturing	39.9%	56.7%	3.4%	68.3
Health Care	38.0%	56.3%	5.7%	66.1
Education	25.9%	65.7%	8.4%	58.7

Nearly two out of three respondents (65 percent) reported higher backlogs, compared to 51 percent in the second quarter. Almost half of Q3 respondents (49.8 percent) expect backlogs to increase further over the coming year.

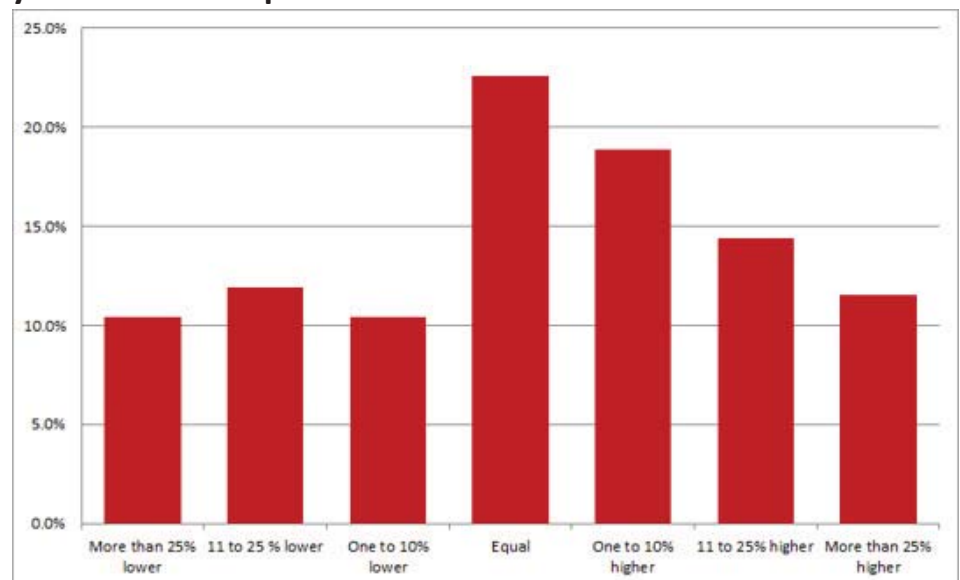
Respondents were slightly less positive in two areas—overall business climate and profitability expectations: 63.4 percent of Q3 respondents said the current business climate is better than a year ago, compared with 68 percent in the Q2 survey; and 46.5 percent of Q3 respondents expect profitability to improve in the coming 12 months, compared with 51 percent in the Q2 survey.

Respondents said most private markets will continue to thrive, with 61.7 percent expecting improvement in Land Development over the coming year, followed by Energy and Power (56.1 percent) and Buildings-Commercial (53.1 percent).

Public market expectations, however, continue to lag, with only 43.8 percent of respondents saying the Water and Wastewater segment will improve by next year, followed by Transportation (39.7 percent) and Health Care (30.9 percent).

Survey respondents reported a strong rebound in hiring as 67.4 percent said employment at their firms is either equal to or higher than pre-recession levels.

**Q: How would you compare the current employment level at your firm to the pre-recession level?**



“We have grown almost 35 percent over the last three years, but a 5 percent rate is a more reasonable outlook over the next couple of years,” said one respondent.

Regarding the skill levels of recent engineering graduates, three out of four respondents (73 percent) labeled the newly-minted engineers as “somewhat prepared,” while 15 percent said they are “unprepared,” and 12 percent said they are “fully prepared.”

“Nobody has ever come out of any school prepared to do what we do as consulting engineers,” said one respondent. “Engineers learn on the job with competent, experienced engineers supervising them. The process takes about 10 years.”

Asked about the future of U.S. transportation infrastructure, which, according to a recent study, has fallen from the world’s best a few decades ago to 15th place today, three in four respondents (77 percent) doubted it would ever again reach top status.

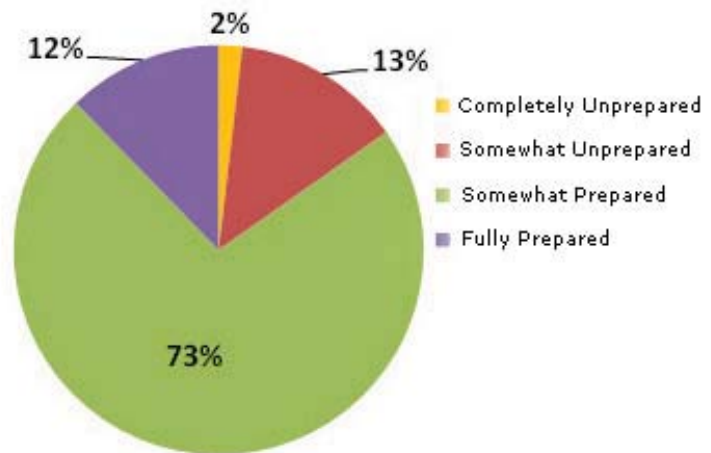
“The state of our infrastructure is an embarrassment and will only get worse as our elected officials don’t find the courage to fund our needs,” said one respondent.

### Survey Demographics

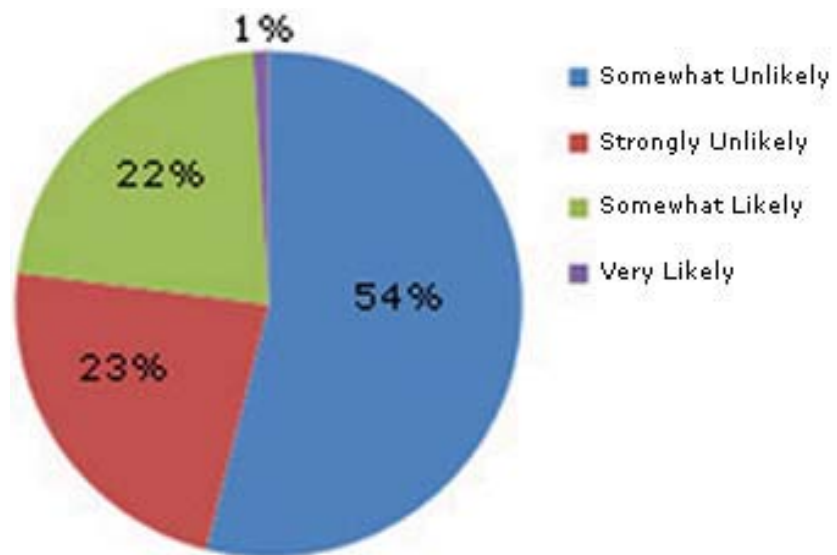
Forty-seven percent of the EBI responses came from engineering firms with between one and 50 employees, 29 percent came from firms with 51-200 employees, and 24 percent from firms with more than 200 employees.

Twenty-eight percent of the responses came from firms operating in the South, 26 percent from the West, 21 percent from the Midwest, 14 percent from the Northeast, and 11 percent from nationwide operations.

### Q: How would you rate overall skill level of recent engineering graduates?



### Q. How likely is it that U.S. transportation infrastructure will once again be recognized as the world leader?



Watch for the next quarterly  
*ACEC Engineering Business Index*  
survey form in your email in-box in mid-December.

# EBI Survey Respondent Comments

## **On the Employment Outlook:**

“Employment is looking good, especially with the pickup in private sector work. Public sector is dismal.”

“The shortage of engineers with skills and experience will be the major limitation to our ability to grow.”

“We expect slow organic growth. Firms want to hire but are very leery of economic conditions and the increasing cost of labor, and therefore are slow to hire and fast to automate/increase productivity instead.”

“We are experiencing increased attrition rates as our competition is fiercely recruiting our staff, because we are known in the industry to train our people well.”

## **On Skill Levels of Recent Graduates:**

“Engineering graduates have tremendous computer and technological skills, but they are not trained to think a problem through. They immediately grab the mouse and start to make something without thinking about what the end project or product should be and how to build it.”

“We are concerned about the availability of quality graduate resources. We are active in STEM education and similar mechanisms to bring more students into engineering.”

“Graduates are sharper, smarter and more sophisticated. They, of course, lack experience. There is no substitution for that. We have to learn how to motivate them, which is more difficult today than it used to be.”

## **On the Future of U.S. Transportation Infrastructure:**

“Until there is a political will to boost infrastructure funding to necessary levels, we won't get where we need to be. We need to commit to investing in our infrastructure the way that Kennedy committed to the race to the moon.”

“We are not surprised where our country is ranked in transportation infrastructure. Our local roads, bridges and infrastructure all need maintenance, repair and upgrades, yet we have lots of rhetoric but little commitment.”

“Changes in funding mechanisms are necessary and we need to stop resisting having public infrastructure projects funded by the private sector.”

For information on the *ACEC Engineering Business Index*  
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