CLARITY

Deltek Know more. Do more.®

Architecture and Engineering Industry Study

36TH ANNUAL COMPREHENSIVE REPORT • 2015

In collaboration with

ACEC American Council of Engineering Companies

Association of Consulting Engineering Companies | Canada

Association des Firmes d'Ingénieurs-Conseils | Canada

SMPS Society for Marketing Professional Services

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Executive Summary

The *Deltek Clarity Architecture and Engineering (A&E) Industry Study* is the oldest and longest-running study of its kind. This study provides the industry's most comprehensive resource on financial performance and market outlook for A&E firm leaders.

For the 36th edition, we expanded the study topics to include business development and project management. This report is based on 2014 fiscal year data provided by 386 U.S. and Canadian architecture and engineering firms. The study was conducted in collaboration with the American Council of Engineering Companies (ACEC), Association of Consulting Engineering Companies | Canada (ACEC Canada), and the Society for Marketing Professional Services (SMPS).

Financial recovery steady, but room for improvement

Almost every A&E financial indicator improved again in 2014, but five years into the current economic recovery, the industry has yet to return to its pre-recession financial strength. To get to the next level, leaders will need to pay attention to financial metrics that still have considerable room for improvement. Most key performance indicators inched ahead in 2014, but the rate of improvement is slowing. Operating Profit rose to 11.8%, the Utilization Rate increased marginally to 60%, and the Overhead Rate dropped to 160%. The Net Labor Multiplier declined slightly to 2.97. In addition to optimizing the traditional KPIs, A&E firms should keep a close eye on the rise in Total Employee Cost, Employee Turnover, and Fixed Asset investments.

Firms challenged by competition, limited time for business development

A&E firm leaders are quite optimistic about their prospects in 2015, but will only be able to turn their projections into reality by implementing effective business development strategies and addressing the industry's greatest business development challenges—competition and limited time. Earlier and better identification of opportunities and strategic networking for teaming are two ways that firms are meeting today's challenges. Win Rates have increased in the last two years in nearly half of firms. While the "seller-doer" model of business development is alive and well in the A&E industry, use of dedicated business development staff is widespread, especially in large firms. A&E firms believe the Water/Wastewater/Storm Water, Commercial, and Roads & Bridges markets will be the hottest in the coming year.

Project management pitfalls point to big bottom-line impact

For the first time, this year's Clarity study examined the A&E industry's best practices in project management, and the results reveal a mixed report card for project data accuracy and visibility and project management maturity. Accurate project cost forecasting (52.3%) and collaboration and communication (47.4%) were the top ranked project management challenges. In the average firm, only 75% of projects were currently on or under budget. Nearly a third of participants said their project management capabilities are somewhat or very immature. The average A&E firm has 37% of its revenue tied up in just three clients.

About the Deltek Clarity Architecture and Engineering Industry Study

A total of 386 U.S. and Canadian Architecture and Engineering firms submitted a valid response to one or more sections of an online survey conducted between February and April 2015. Of these responses, 347 firms submitted a valid response to all of the sections. Where possible, this year's responses were aggregated with data from past Clarity studies to analyze trends.

Firm Type

We use the term Architecture & Engineering (A&E) to refer to *all* Architecture, Engineering, and allied design firms included in the study. We also break out two broad segments for comparison:

Engineering (E) or **Engineering/Architecture (E/A)** firms are either pure consulting engineering firms or engineering dominant firms that also provide architectural services. E/A firms are also known in the industry as "big E, little A" firms. In this edition, 62.5% of participants are Engineering or E/A firms.

Architecture (A) or **Architecture/Engineering (A/E)** firms are either pure architectural design firms or architecture dominant firms that also provide engineering services. A/E firms (not to be confused with A&E, which refers to all design firms) are also known in the industry as "big A, little E" firms. In this edition, 27.7% are Architecture or A/E firms.

Other refers to the many firms in the industry that don't fit into the traditional definitions of A or E. This year, 9.8% of participants are other types of design or consulting firms, including landscape architecture, interior design, and environmental consulting.

Firm Size

When looking at the size of the participating firms, 45.0% are small firms (1–50 employees), 45.8% are mid-sized firms (51–250 employees) and 9.2% are large firms (251+ employees).

High Performers

As in past Clarity A&E studies, we broke out a group of High Performers for additional analysis. We started with firms that have a Net Labor Multiplier of 3.0 or higher and an Operating Profit rate of 15% or higher (pre-tax, pre-bonus on net revenues). High Performers constitute 25.5% of all participants. Throughout this report, we contrast High Performers with "All Other Firms," which consists of all participants *except* High Performers, and which should not be confused with "All Participants."

Study Notes

When we refer to "average" in this report, we use the median value, which is the middle of the data set—half the firms are higher and half are lower. Top Quarter and Bottom Quarter refer to the top and bottom quartiles—25% of firms were equal to or higher than the top value, 25% were equal to or lower than the bottom value, and 50% fall between the two.

Per employee ratios for Income Statement items are calculated using the average number of employees during the year, while per employee ratios for Balance Sheet items are calculated using the number of employees at the end of the year.

Data Profile

At the end of the report are comprehensive tables including all the financial metrics from the study broken down by firm size, type, and performance.

SECTION ONE

Finance & Accounting

Introduction

The Architecture and Engineering industry's slow, sustained recovery from the worst recession since the Great Depression continued in 2014, and growth has firmly taken root after years of struggle. The proof is here in the 36th annual *Deltek Clarity A&E Industry Study*.

Yet while A&E firms have much to celebrate, our study also found that five years into the current economic recovery, the industry has yet to return to its pre-recession financial strength. A&E firms have a positive outlook for 2015, but in order to achieve their desired results, leaders will need to pay attention to several financial metrics that still have considerable room for improvement.

Operating Profit increased for the fifth consecutive year, reaching 11.8%.

Net Labor Multiplier, Total Payroll Multiplier, and Utilization have all recovered from recession lows.

Average Collection Period remains high at 75 days, seven days slower that it was 10 years ago.

The average Employee Turnover rate jumped almost two percentage points in 2014.

Key Performance Indicators Rising, Still Room for Improvement

Based on Deltek's analysis of detailed income statements and balance sheets from hundreds of U.S. and Canadian A&E firms, the industry's Key Performance Indicators look better almost across the board. Operating Profit, Utilization Rate, Net Revenue per Employee, Total Payroll Multiplier, Staff Growth, and Average Collection Period all showed year-over-year improvements. Meanwhile, balance sheets also grew stronger on average, with better Return on Equity and steady Debt to Equity ratios.

A closer look at the data reveals, however, that some flattening of Key Performance Indicators is beginning to occur, and several metrics remain stubbornly short of their 10-year highs:

- The Net Labor Multiplier remains stuck below the 3.0 threshold achieved in the years before the recession.
- The Total Payroll Multiplier has been relatively flat since 2011, fluctuating between 1.74 and 1.77, off from its 10-year high of 1.84.
- Although the A&E industry's Utilization Rate of 60.0% is at its highest point since 2006, it still lags its 10-year high of 61.5%.
- A&E firms reported improved profitability for the fifth consecutive year, but at 11.8% it is still short of the 13.9% reported in 2006.

Improvements Needed to Meet 2015 Goals

Study respondents are optimistic about their prospects for growth in 2015 and forecast that their Operating Profit rate will match the10-year high of 13.9%. However, based on the experiences of Deltek's industry experts, firms will have difficulty achieving their ambitious goals without improvement in several financial performance metrics that remain industry weak spots.

Average Collection Period, for example, remains poor at 75 days—seven days slower than it was in the mid-2000s. Even worse, nearly a quarter of firms have Average Collection Periods greater than 100 days. The good news is that Average Collection

Period is one metric that firms have considerable control over. By improving their capacity to quickly prepare and track invoices, streamline cumbersome approval processes, alter ineffective collection efforts, and speed up communication with slow paying clients, firms can significantly reduce average collection days which increases working capital and reduces the need to borrow. The quarter of study respondents that have Average Collection Periods below 58 days prove that significant improvement is achievable.

Net Revenue per Employee, an excellent indicator of a firm's operating performance, hit an all-time high in 2014 at $129,689, after increasing for the third year in a row. When adjusted for inflation (U.S. CPI), however, the news is not as rosy since the figure would need to have been $140,899 to match the previous high from 2008. Increasing fees is one strategy A&E firms can pursue to drive Net Revenue per Employee higher, although that can be difficult in extremely competitive markets. Another is to improve talent management in order to recruit, retain, and develop more productive workers who can push Utilization Rates higher.

Fixed Asset Investments, Employee Turnover Will Require Vigilance

As the A&E industry continues to invest in increasingly sophisticated computer systems, software, and field equipment, firms will need to place a greater premium on asset management and keep a more watchful eye on their total fixed asset expenditures, which averaged $6,922 per employee in 2014. In addition, beyond simply payroll and bonuses, A&E firm leaders will also need to monitor their payroll taxes and group health/life insurance, which made up 16.3% of Total Employee Costs in 2014. Group health/life insurance expenditures have been on the rise, increasing 12.2% from 2012 to 2014, and tracking health care expenses will take on greater importance in 2015 as the Internal Revenue Service begins to require employers to report on the status of health care coverage of their employees.

As industry optimism grows and unemployment rates continue to fall, A&E professionals are feeling more secure and willing to jump ship, either to another A&E firm or outside the industry. One study found that 51% of workers who currently have a job are either actively seeking or open to a new job. The talent war is heating up once again, as seen in the rise of Employee Turnover among study respondents to 13.7% in 2014 from 11.8% the prior two years. Employee Turnover is costly in terms of lost productivity, management time, training dollars, and recruiting fees, so forward-thinking firms will need to keep a close eye on this metric while improving retention by investing in training and talent management systems.

Rising chargeability has contributed to the recent drop in the A&E industry's Overhead Rate, which in 2014 registered its lowest number (160.0%) since the beginning of the recession. However, if the industry drives down its Overhead Rate at the expense of proper investments in capital, employee benefits, marketing, and training, it will find its long-term financial health at risk and, ultimately, its ability to finally return to pre-recession levels in jeopardy.

Study respondents are optimistic about their prospects for growth in 2015, but will have difficulty achieving their ambitious goals without improvement in several financial performance metrics that remain industry weak spots.

Operating Profit on Net Revenue

2014 Average

11.8% +0.7

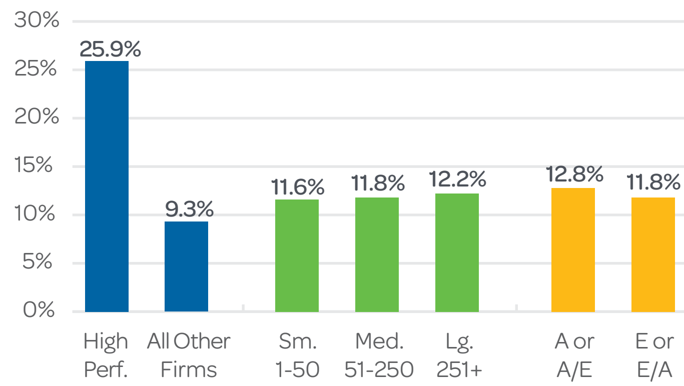
Operating Profit (pre-tax, pre-bonus) on Net Revenue is generally the preferred measure for an A&E firm's profit rate because it omits pass-through expenses from the top line as well as taxes and discretionary distributions from the bottom line.

Operating Profit rates have been rising for five years now at a very steady rate, but have yet to reach their pre-recession highs. Profits were slightly higher for Architecture and A/E firms than Engineering and E/A firms, and also a bit higher for large firms than small firms. Firms whose primary contract type was fixed fee had an average profit rate nearly four percentage points higher than firms whose primary contract type was hourly (13.2% vs. 9.4%). The most profitable firms in the study again achieved operating margins greater than 40%.

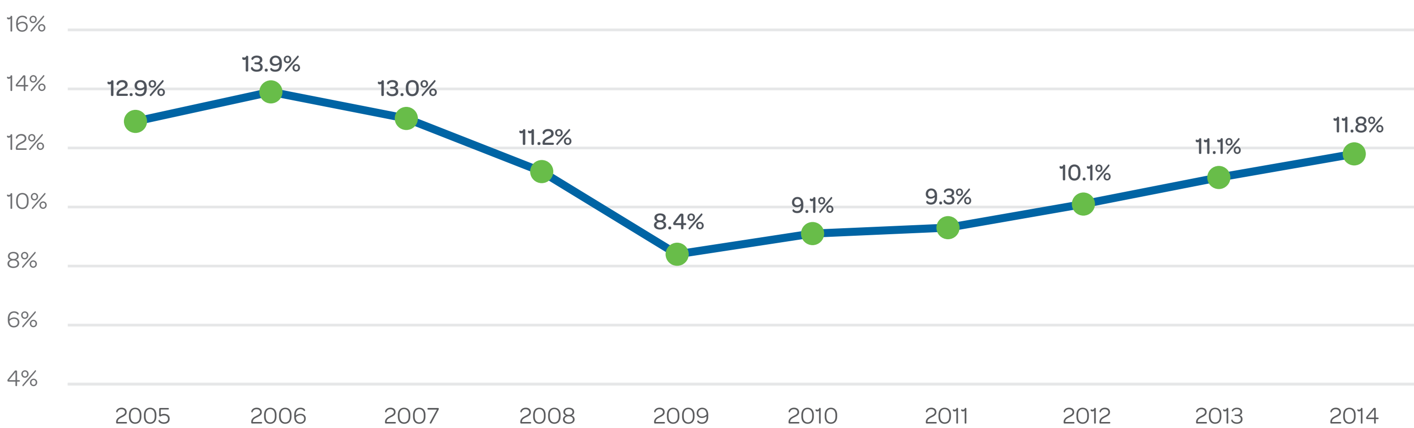
Operating Profit on Net Revenue is calculated by dividing pre-tax, pre-distribution profit by Net Revenue (total revenue minus consultants and other direct expenses, both billable and non-billable), and multiplying by l00.

	2014	2013
Top Quarter	18.7%	17.8%
Average	11.8%	11.1%
Bottom Quarter	6.2%	5.2%

How Firms Compare



Ten-Year Trend



Utilization Rate

2014 Average

60.0% +0.6

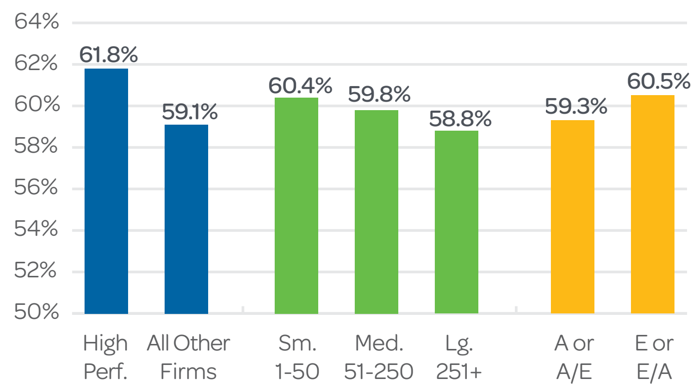
The Utilization Rate (also known as Chargeability) measures the percentage of total staff labor charged to billable projects. Although some A&E firms track utilization on hours or remove vacation, holiday, sick, and other paid time off, measuring by dollars and including paid time off shows the clearest picture of labor cost utilization and has become the industry standard. Utilization Rates may be subject to "gaming" by employees and managers, depending on the incentives in place.

Utilization inched ahead in 2014, but in the bigger picture has been stuck in a 1% range for three years now. Half of participants were between 55% and 65%. In past recoveries, average utilization has risen as high as 65% in 1999 and 2000 and 61.5% in 2005. There were no dramatic differences in utilization by firm size or type, although small firms had slightly higher utilization than mid-sized or larger firms. High Performers had higher utilization rates than other participants.

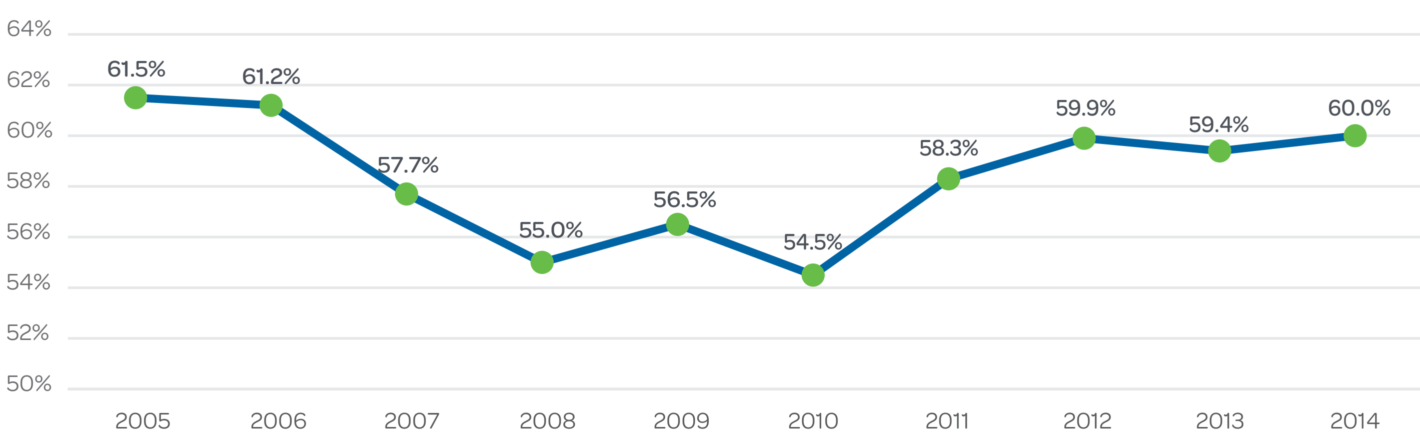
The Utilization Rate is calculated by dividing the cost of Direct Labor (labor charged to projects) by the total labor cost of the firm, and multiplying by 100.

	2014	2013
Top Quarter	65.4%	65.0%
Average	60.0%	59.4%
Bottom Quarter	55.8%	54.9%

How Firms Compare



Ten-Year Trend



Net Labor Multiplier

2014 Average

2.97 -0.02

The Net Labor Multiplier is a measure of the actual mark-up on labor costs. It should not be confused with the "Target Multiplier," which is a firm's goal (but not actual) for labor mark-up. Within a typical A&E firm, Net Labor Multiplier and Utilization Rate usually work in opposition; when one goes up the other goes down. The exception to this rule seems to be during the early phase of a recession or a recovery.

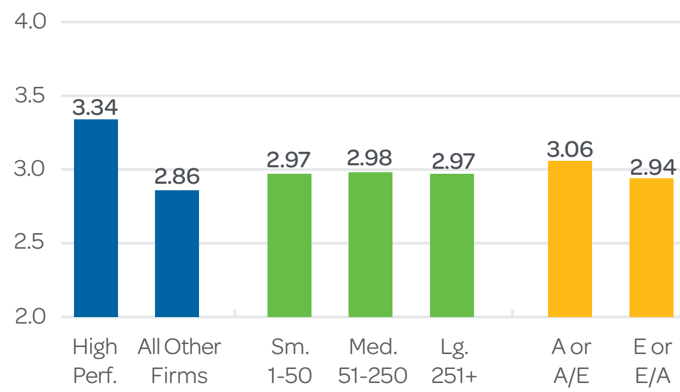
True to form, the average Net Labor Multiplier dipped a bit in 2014, while Utilization rose slightly in counterbalance. Last year, the story was the opposite, but neither change was very significant and it seems that firms are settling into this level of productivity for now. Half of firms were between 2.73 and 3.31, a range that hasn't varied much in the last three years.

Net Labor Multiplier was much higher than average in High Performers, of course, since high multipliers are built into our definition of high performance.

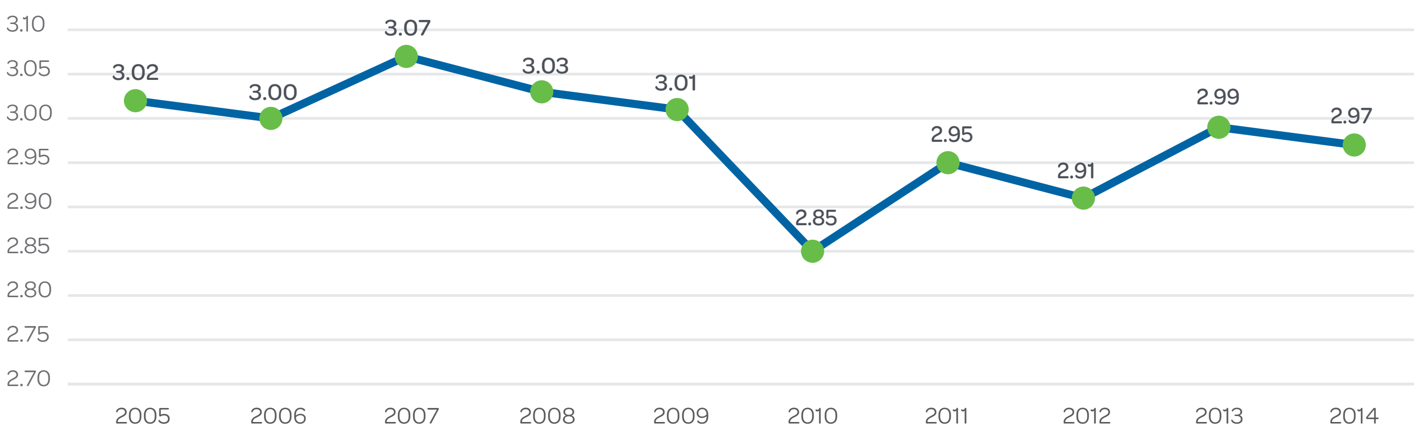
The Net Labor Multiplier is calculated by dividing Net Revenue by Direct Labor, the cost of labor charged to projects.

	2014	2013
Top Quarter	3.31	3.27
Average	2.97	2.99
Bottom Quarter	2.73	2.73

How Firms Compare



Ten-Year Trend



Total Payroll Multiplier

2014 Average

1.77 **+0.03**

	2014	2013
Top Quarter	1.93	1.94
Average	1.77	1.74
Bottom Quarter	1.63	1.61

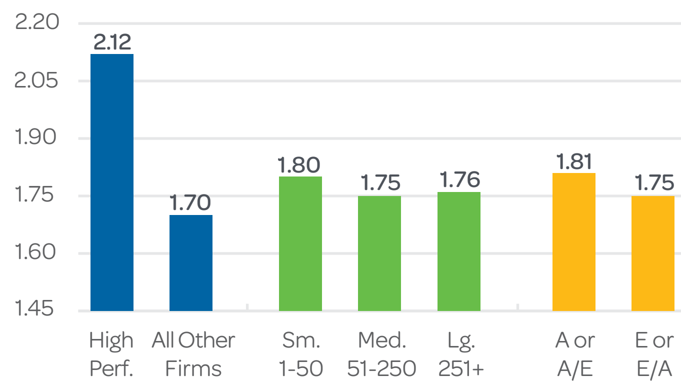
Total Payroll Multiplier is the most consistent single indicator of an A&E firm's operating performance. By directly relating revenue to total labor, it cancels out the push and pull between Utilization and Net Labor Multiplier and shows how efficiently a firm converts labor to revenue.

Total Payroll Multiplier increased to 1.77 in 2014, but hasn't advanced significantly since 2011. Based on historical data, there is still room for improvement in the Total Payroll Multiplier, if firms can overcome competitive pressures on fees and improve resource planning and project management.

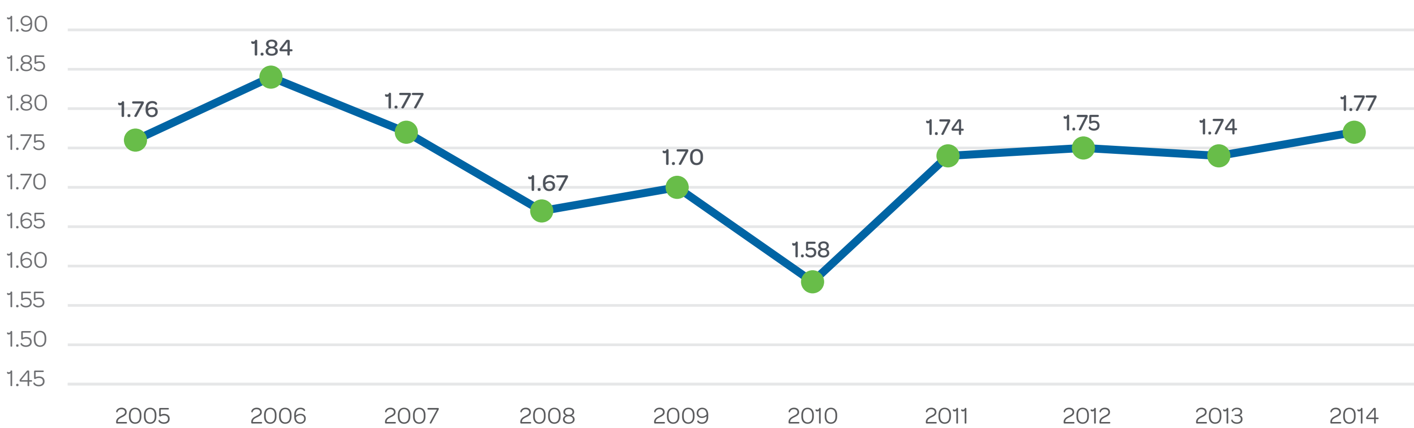
As we've seen in past Clarity studies, firms with higher than average Total Payroll Multipliers includes High Performers, small firms, and Architecture or A/E firms.

The Total Payroll Multiplier is calculated by multiplying Utilization by Net Labor Multiplier, or by dividing Net Revenue by Total Labor.

How Firms Compare



Ten-Year Trend



Overhead Rate

2014 Average

160.0% -1.1

The Overhead Rate (excluding bonuses) shows the relationship of a firm's non-chargeable costs—including non-billable professional time, facility costs, and corporate expenses—to Direct Labor. When it comes to firm-wide Overhead, lower is generally better.

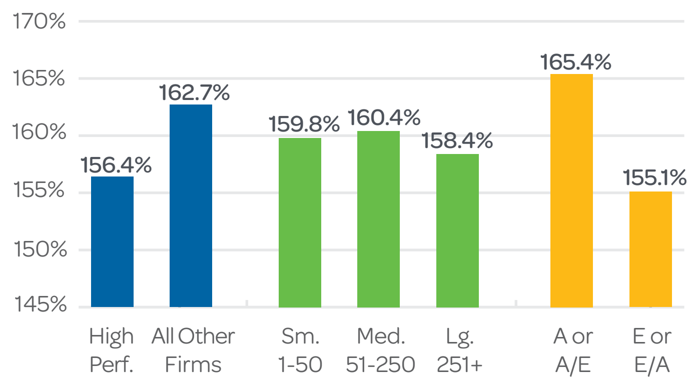
The Overhead Rate was virtually unchanged in 2014, and we're not seeing any indication that it's returning to the 150% levels. The largest component of overhead is indirect labor, so firms will need to continue improving utilization, while watching corporate overhead and employee benefit expenses.

Overhead Rates were surprisingly consistent across different size ranges this year. Engineering or E/A firms were lower than Architecture or A/E firms. High Performers had lower than average Overhead.

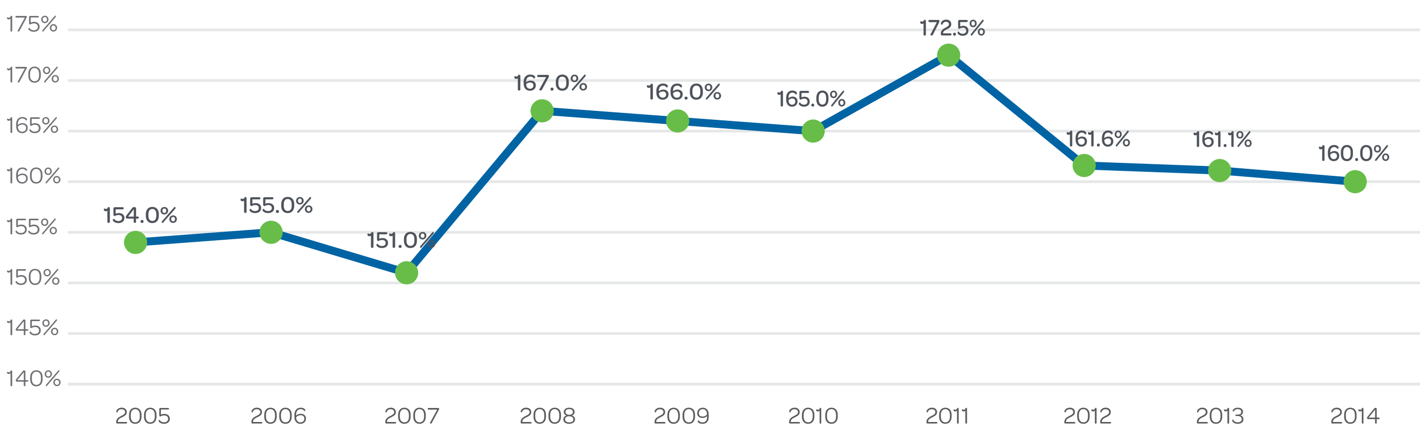
The Overhead Rate is calculated by dividing Total Overhead (before distributions) by Total Direct Labor Expense, times 100.

	2014	2013
Top Quarter	184.7%	183.5%
Average	160.0%	161.1%
Bottom Quarter	134.0%	135.2%

How Firms Compare



Ten-Year Trend



Net Revenue per Employee

2014 Average

$129,689 +2,591

Net Revenue per Employee is an excellent indicator of a firm's operating performance compared to its peers. High Performers almost always have higher revenue per employee and this year is no exception. In addition, this number should generally rise over time with inflation.

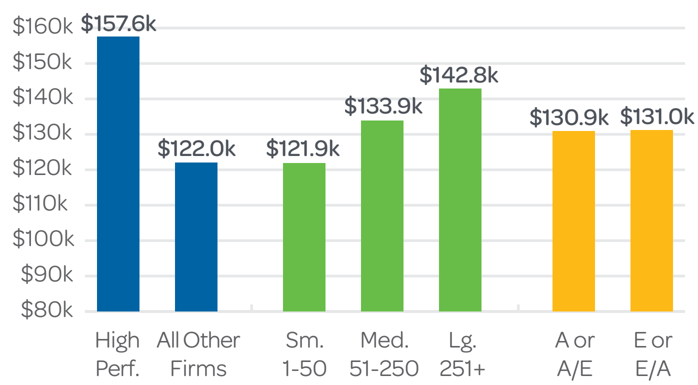
Net Revenue per Employee rose for the third year in a row to $129,698, but adjusted for inflation it is still below its pre-recession highs. This ratio can vary among firms from less than $100,000 to more than $200,000; half of participating firms were between $113,692 and $149,705. If and when the supply-demand balance swings back from the client's to the A&E firm's advantage, Net Revenue per Employee will begin to rise more dramatically as seen in previous recovery cycles.

High Performers reported an average Net Revenue per Employee nearly 30% higher than other firms. Large and mid-sized firms' Net Revenue per Employee was also higher than average, while in small firms it was significantly lower.

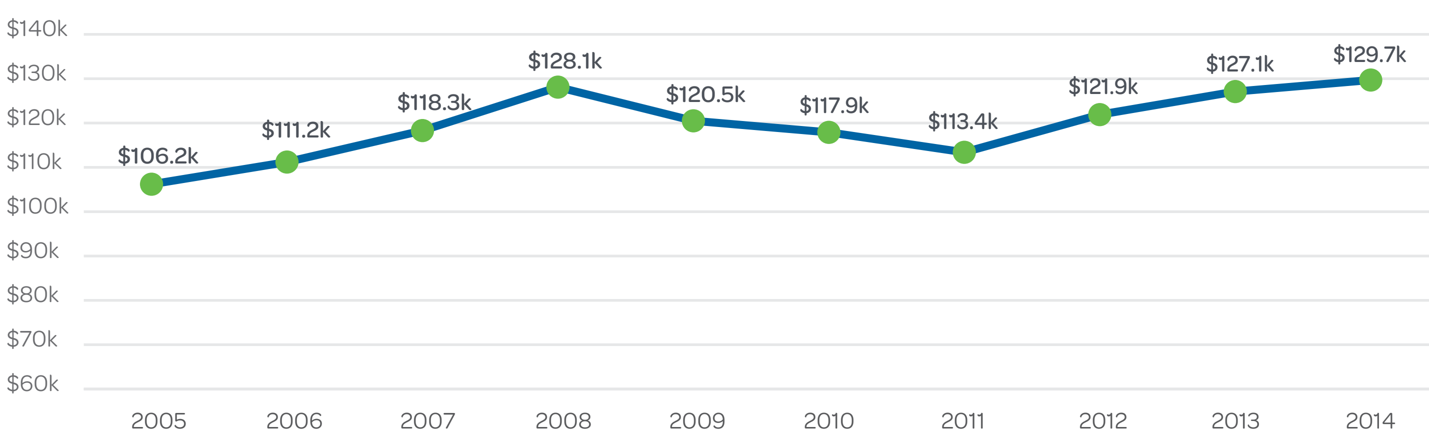
Net Revenue per Employee is calculated by dividing annual Net Revenue by the average total number of employees during the year, including principals.

	2014	2013
Top Quarter	$149,705	$144,027
Average	$129,689	$127,098
Bottom Quarter	$113,692	$111,130

How Firms Compare



Ten-Year Trend



Staff Growth or Decline

2014 Average

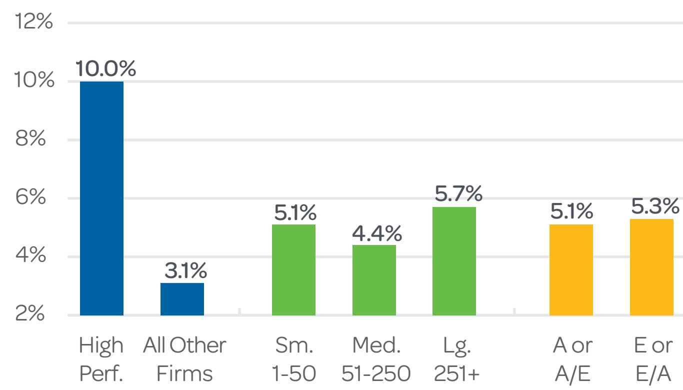
4.7% +0.9

Adding staff is the primary means of investment in growth for A&E firms. The average A&E firm increased staff levels more quickly between 2013 and 2014. High Performers added staff at a double-digit rate, showing their commitment to growth. However, more than a quarter of participants reduced headcount by 1.5% or more.

Staff Growth is calculated by subtracting end of year headcount from start of year headcount, dividing the result by start of year headcount, and multiplying by 100.

	2014	2013
Top Quarter	13.0%	12.2%
Average	4.7%	3.8%
Bottom Quarter	(1.5%)	(2.3%)

How Firms Compare



Employee Turnover

2014 Average

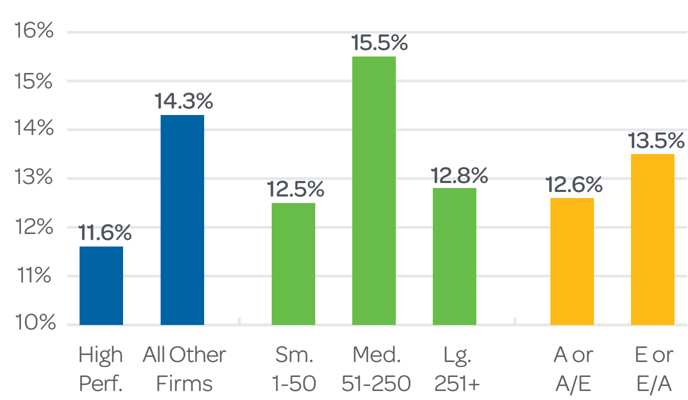
13.7% +1.9

Employee Turnover is the rate at which an A&E firm loses employees, whether voluntary or involuntary, and 2014 saw Turnover begin to rise, from 11.8% to 13.7%. In a quarter of firms it was more than 20%. As in past recoveries, Turnover becomes a problem as employees have more opportunities and confidence to make job changes in a growing market and firms compete for qualified staff. Turnover was lower in High Performers.

Employee Turnover is calculated by dividing the number of employees leaving during the year by the average number of employees during the year.

	2014	2013
Top Quarter	20.8%	19.6%
Average	13.7%	11.8%
Bottom Quarter	7.1%	4.8%

How Firms Compare



Total Employee Cost

2014 Average

$88,001 +2,241

Although labor is the single largest expense for A&E firms, it's still only 80% of the Total Employee Cost. The balance includes payroll taxes, group health/life insurance, 401(k) contributions, and so on. Taxes and group insurance alone make up 80% of that amount. We don't include discretionary bonuses in Total Employee Cost.

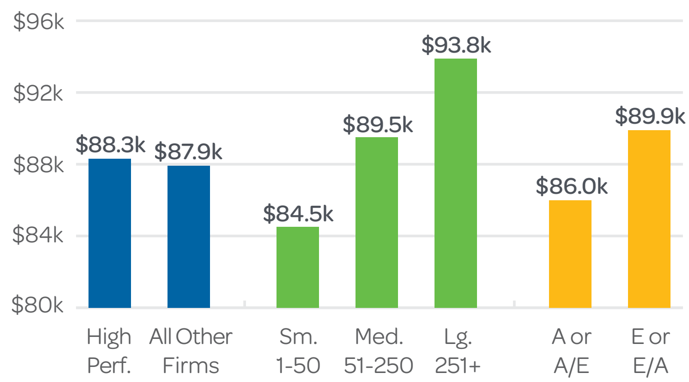
For 2014, the average Total Employee Cost was $88,001, but like Net Revenue per Employee it varied significantly, especially among different firm sizes. Interestingly, High Performers kept this cost in line with other firms, although we do know they rewarded employees with much higher than average bonuses.

Looking back at how the economic recovery has impacted Employee Costs since 2011, we found the average increased 12.6% in the last three years. However, almost all of that increase has been in labor (up 11.4%). Net Revenue per Employee rose 14.4% in the same period, so it is keeping pace and even ahead of Employee Costs. And cumulative CPI inflation over the same period was only approximately 5%. Insurance costs are up only 3.7% since 2011. However, in 2004 group insurance was 3.4% of net revenue and in 2014 that was up to approximately 4.4%, so it continues to be an area of concern for most A&E firms.

Total Employee Cost is the sum of Direct Labor, Indirect Labor, and Other Labor-Related Expenses (taxes, insurance, etc.) divided by the average number of employees during the year. Excludes bonuses.

	2014	2013
Top Quarter	$98,345	$101,817
Average	$88,001	$85,760
Bottom Quarter	$78,781	$73,515

How Firms Compare



Average Collection Period

2014 Average

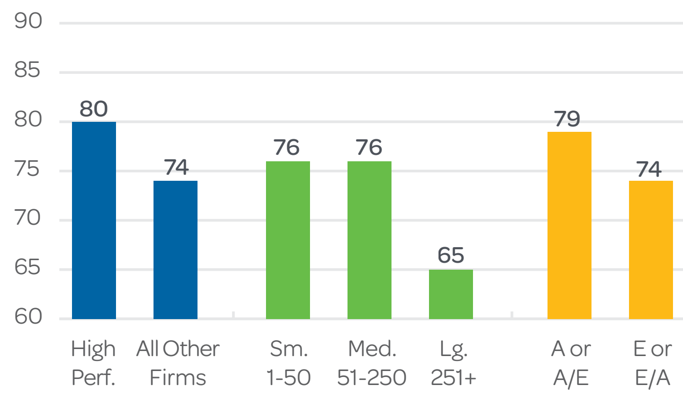
75 days -1

The Average Collection Period is the length of time it takes to collect Accounts Receivable (A/R) from your clients, from the time an invoice is entered into A/R to when it is credited against A/R. The Average Collection Period declined one day from 2013 to 2014, still eight days slower than it was in 2010. Large firms were the best at collecting their receivables. As we saw last year, High Performers had a longer Average Collection Period than other firms, so this is one area where even the best performing firms still have room for improvement.

The Average Collection Period is calculated by dividing Accounts Receivable by annual Total Revenue, times 365.

	2014	2013
Top Quarter	98	100
Average	75	76
Bottom Quarter	58	58

How Firms Compare



Net Fixed Assets per Employee

2014 Average

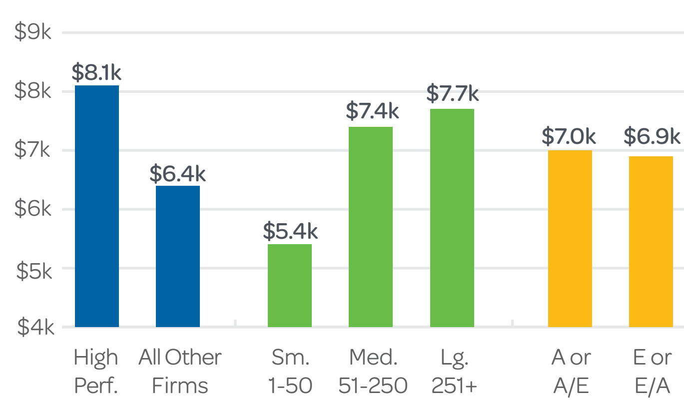
$6,922 -989

As the A&E industry continues to invest in technology and equipment, firms will need keep a more watchful eye on their total fixed asset expenditures and take a greater interest in managing these costs along with their people costs. To get a sense of the infrastructure investment to support each employee, we looked at fixed assets less depreciation and goodwill. Since a balance sheet represents only a single point in time and may not tell the whole story, accounting for assets and comparing firms is not as clear-cut as for operating statistics like profitability. However, we found the average was $6,922 per employee, with a higher level of investment in larger firms and in High Performers.

Net Fixed Assets per Employee is Fixed Assets less Goodwill and Depreciation, divided by the current number of employees.

	2014	2013
Top Quarter	$10,930	$8,692
Average	$6,922	$7,911
Bottom Quarter	$3,531	$5,904

How Firms Compare



Current Ratio

2014 Average

2.44 -0.12

The Current Ratio (also known as working capital ratio) measures liquidity and is used to gauge a company's ability to meet its short-term obligations. The average firm's Current Ratio decreased in 2014 after several years of improvement, perhaps as result of growth, which strains a firm's short-term capital. High Performers, small firms, and Engineering or E/A again had greater than average short-term liquidity.

The Current Ratio is calculated by dividing Current Assets (cash and near cash assets) by Current Liabilities (those due in one year or less).

	2014	2013
Top Quarter	4.07	4.10
Average	2.44	2.56
Bottom Quarter	1.67	1.70

Debt to Equity Ratio

2014 Average

0.82

Debt to Equity is a measure of a company's financial leverage. Debt to Equity for the average firm was unchanged in 2014 at 0.82. Although there is no rule on what is a good Debt to Equity ratio, most A&E firms are debt averse and believe lower is better. As we found with many of the KPIs in the study, Debt to Equity is at a historically normal level, but has not recovered to 10-year lows. High Performers and small firms have the lowest Debt to Equity, both of them closer to 0.5.

The Debt to Equity ratio is calculated by dividing Total Liabilities by Stockholders' Equity.

	2014	2013
Top Quarter	1.45	1.62
Average	0.82	0.82
Bottom Quarter	0.32	0.35

Return on Equity

2014 Average

19.6% +1.5

Return on Equity (ROE) measures the potential reward of an ownership interest in a firm. We use after-bonus, pre-tax income to calculate it. ROE rose along with Operating Profit in 2014, with one-quarter of firms reporting 45% or higher ROE.

Return on Equity is calculated by dividing Pre-Tax Income (Operating Profit less bonuses, interest, and other income or expenses) by Stockholders' Equity, times 100.

	2014	2013
Top Quarter	45.0%	38.2%
Average	19.6%	18.1%
Bottom Quarter	5.7%	4.5%

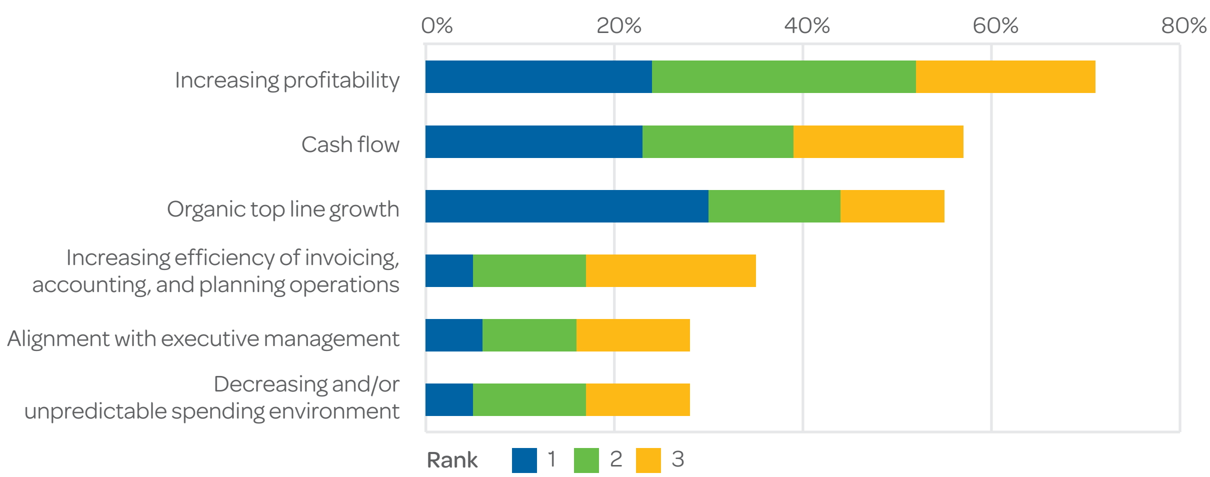
Financial Challenges

What do A&E firms think will be the top three challenges facing their financial leaders over the next two to three years? We asked participants to select from a list of common challenges and to rank their choices from highest to lowest.

It was no surprise to see the age-old challenges of profitability, top-line growth, and cash flow atop participants' rankings. Revenue growth, although third in combined ranking, was most commonly ranked number one. Firms were less concerned about improving efficiencies, alignment with executive management, or the external spending environment. Managing merger and acquisition activity was a specialized challenge only affecting larger firms for the most part.

At the end of day, it seems that after surviving the downturn and enjoying a slow, steady recovery for several years, it's back to the basics now for achieving better performance in A&E firms, from better business development to drive revenue, better project management and resource planning to strengthen profitability, and agile financial controls to smooth out the bumps in cash flow.

Top Financial Challenges



Clarity Outlook: Finance & Accounting

The A&E industry's slow, sustained recovery will continue and become more broad-based as the economy picks up steam in most market sectors. Double-digit profitability should again be the norm for A&E firms, but a return to pre-recession levels will be difficult if the flattening trend of several Key Performance Indicators persists.

For A&E firms to achieve their bullish growth prospects, they will need to improve in several lingering weak spots, including project management and resource utilization.

Firms also need to be careful not to drive down their Overhead Rates at the expense of proper investments in capital, employee benefits, training, marketing, and talent management.

With the return of the talent war to the A&E industry, forward-thinking firms will need to monitor Employee Turnover and offer competitive packages to attract new workers.

SECTION TWO

Business Development

Introduction

Among the good news revealed in the 36th annual *Deltek Clarity Architecture and Engineering Industry Study* is that firm leaders are quite optimistic about their prospects in 2015. Respondents forecast that their average Operating Profit rate will hit 13.9%, which would be 2.1 percentage points higher than the average Operating Profit rate in 2014 and match the study's 10-year high. A&E firms also project a 6.2% jump in Net Revenue in 2015, a slightly better forecast than the 6.0% Net Revenue growth projected by respondents to last year's study.

Increased competition (55.8%) was the most cited business development challenge.

The executive team (84.7%) and project managers (68.6%) were ranked highest in responsibility for business development.

The average Win Rate in 2014 was 47.6%, the same or higher than two years ago, according to most firms.

In every major A&E market the vast majority of participants predict steady demand or growth.

A&E firms will only be able to turn their bullish projections into reality, however, by implementing effective business development strategies and addressing the industry's greatest business development challenges—competition and limited time. When asked to name their top three business development challenges, 55.8% of study respondents identified increased competition, which is a lingering aftereffect of the recession when markets contracted and firms began chasing projects and clients they previously ignored. In addition to heightened competition, which has become the "new normal" in the industry, firms also reported struggling with the availability of time to nurture client relationships (44.5%) and limited business development resources/time (42.1%).

Earlier, Better Opportunity Tracking Top BD Initiatives

When asked to name the top three initiatives they are undertaking to address their business development challenges, the most common strategies reported by A&E firms were earlier identification of opportunities and requirements (cited by 52.5% of respondents), better opportunity identification (cited by 49.9%), and strategic networking to expand teaming options (cited by 45.0%). In such a competitive marketplace, firms cannot afford to be passive, expecting project opportunities to fall into their laps. They need to beat the competition to the punch by identifying projects as early in the process as possible, nurturing client relationships, and implementing a robust CRM system to share information across the firm. It's also important to continuously strengthen relationships with existing clients—as we'll see in the next section, the average firm has 37% of its revenue tied up in just three clients.

The need to collect and disseminate project leads and client intelligence is particularly critical because the study found that the seller-doer model is alive and well in the A&E industry with business development responsibilities falling on many shoulders. The vast majority of study respondents (84.7%) reported that their executive teams are responsible for business development, and project managers have business development responsibilities in more than two-thirds (68.6%) of firms. Deltek's industry experts have seen a rise in the use of dedicated business development staff over the last decade, particularly in large firms. The study confirmed that more than twice as many large firms (71.9%) as small firms (33.8%) employ dedicated business development staff.

Seller-Doer Model Puts Time at a Premium

The heavy sales involvement of executives, project managers, and design staff who have other primary responsibilities reveals why finding time to nurture client relationships and engage in business development is such a challenge to the A&E industry. It is also why internal efficiencies and coordination—if only to make sure time isn't being wasted by having multiple team members pursuing the same opportunity—are so critical to success.

With marketing staff and design team members also involved in business development in a sizable number of firms, even small firms can benefit from more sophisticated, systematic procedures that "institutionalize" business development. However, the study found that only 29.2% of respondents employ a formal go/no go process for all opportunities, and 40.2% never employ one at all. This is a particular problem for small firms, of which 51.6% never use a formal go/no go process. Without a systematic approach to opportunities, smaller firms with limited resources may be wasting valuable time and effort chasing everything instead of focusing their time and efforts on opportunities that they are more likely to win.

People Power Key to Success

And, if firms don't employ the right people with the right project experience and client relationships, they can't win. A&E firm leaders reported that the top three factors influencing the success of their companies are the right people (cited by 75.7%), long-term relationships with clients (cited by 74.7%), and firm reputation (cited by 65.5%). That places a great premium on talent management—identifying, hiring, and retaining quality personnel who can develop or have developed strong relationships with clients that bring in recurring business.

Among the good news in the study is that A&E firms are winning nearly half (47.6%) of their proposals. Further positive news is that 42.9% of respondents reported that their win rate has increased either slightly or significantly in the past two years, while only 12.3% reported that it has dropped in the same time period. One cause for concern, however, is that 13.1% of study respondents don't track win rates at all.

What's Hot, What's Not in 2015

So where will the best opportunities for industry growth occur in 2015? Our study found that A&E firms believe the Water/Wastewater/Storm Water, Commercial, and Roads & Bridges markets will be the hottest in the coming year. Of respondents whose firms work on water, wastewater, and storm water projects, 59.0% expect their work in the market to grow, the highest percentage of all surveyed markets. Additional markets in which more than half of respondents working in the market expect their business to grow include Commercial (58.0%), Roads & Bridges (57.9%), Surveying/GIS/Mapping (55.3%), Healthcare (51.0%), and Energy/Power (50.7%).

On the flip side, the markets in which respondents are least optimistic for growth are Public Facilities (38.4%), Hospitality (38.5%), and Residential (45.4%). Nevertheless, whether working in hot or cold markets, firms that best address the twin business development challenges of heightened competition and limited time will be best poised for growth in 2015.

With marketing staff and design team members also involved in business development in a sizable number of firms, even small firms can benefit from more sophisticated, systematic procedures that "institutionalize" business development.

Business Development Challenges

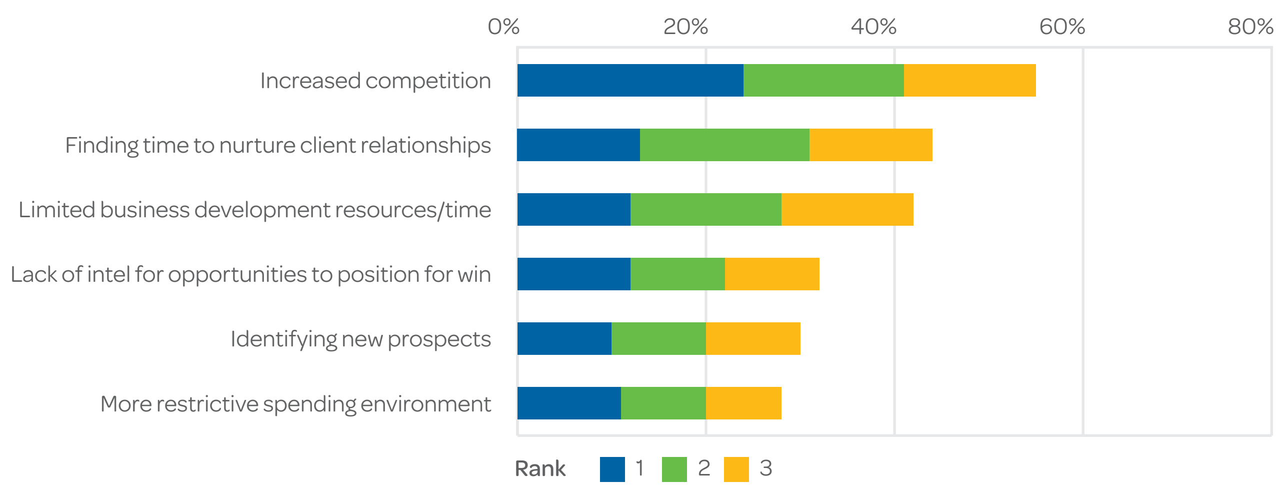
We asked participants to select from a list of common challenges and to rank their choices from highest to lowest.

One lasting effect of the recession has been a willingness by A&E firms to chase new clients and projects, even outside their usual spheres of work. The collapse of many market sectors and regions left no alternative. So not surprisingly, increased competition emerged as the top business development challenge in our study. It was chosen by more participants than any other challenge and also was nearly twice as likely to be ranked as their number-one challenge. The second and third top challenges by combined ranking both related to time constraints—finding time to nurture client relationships and limited business development resources and time.

The top three choices for the combined ranking were the same for firms large and small, as well as High Performing firms. Larger firms were even more likely than other firms to cite increased competition and, farther down the list of challenges, a more restrictive spending environment. High Performing firms were slightly less challenged with gaining intelligence for opportunities to position for a win.

Issues such as administrative work, finding teaming partners, and responding to RFPs did not rank highly among business development challenges for participants.

Top Business Development Challenges



One lasting effect of the recession has been a willingness by A&E firms to chase new clients and projects, even outside their usual spheres of work.

Business Development Initiatives

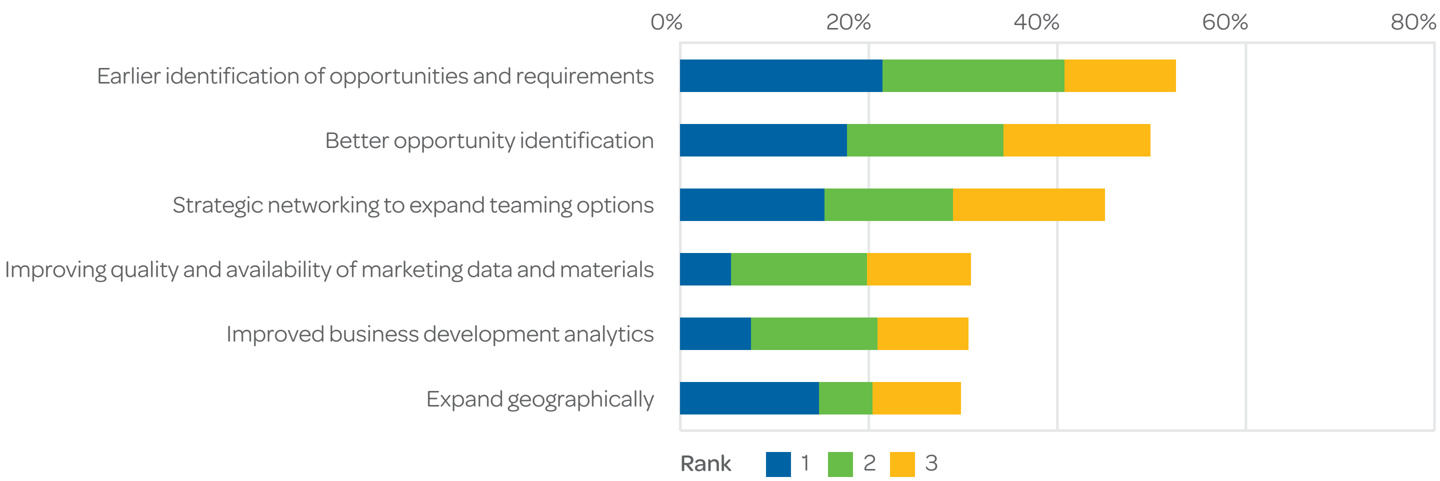
What are A&E firms' top three initiatives to address business development?

Again we asked participants to select from a list of options and to rank their choices from highest to lowest.

In response to the challenges of competition and limited time for business development, A&E firms are focused on earlier identification of opportunities and requirements, better opportunity identification, and strategic networking to expand teaming options. In other words, firms are trying to get out ahead of opportunities and put a better team together to improve their chances for a win.

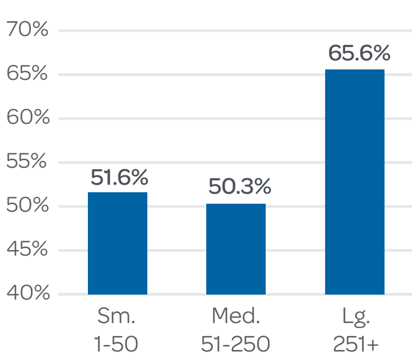
There was considerable variation in the answers for this question between large and small firms. Large firms were even more concerned than the average firm about earlier identification of opportunities and requirements. They were nearly twice as likely as small firms to have an initiative to expand geographically and almost 10 times more likely to be pursuing an acquisition or merger. Small firms more commonly were trying to improve the quality and availability of their marketing data and materials.

Top Business Development Initiatives

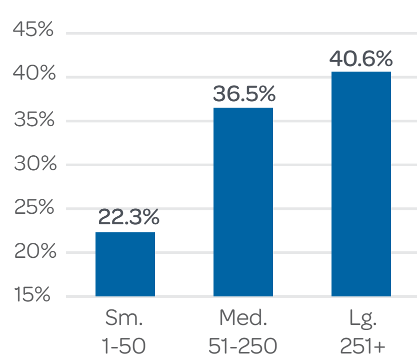


How Firms Compare (by firm size, combined ranking)

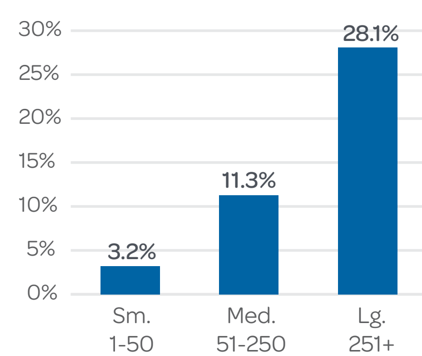
Earlier Identification of opportunities and requirements



Expand geographically



Acquisition/merger



Who Is Responsible for Business Development?

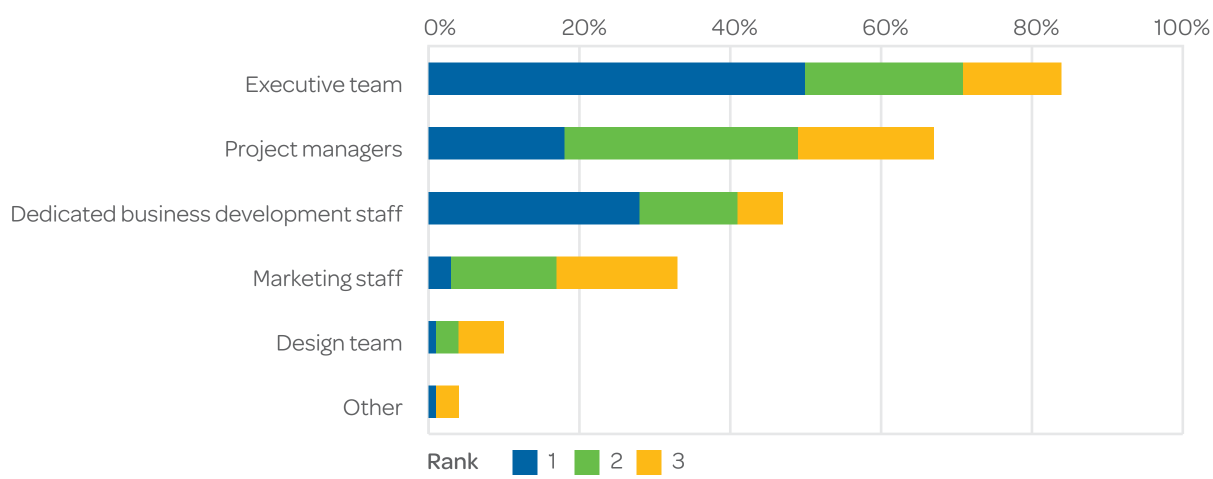
Who is responsible for business development in A&E firms? We provided a list of common roles and asked participants to select and rank them.

The top choices, far and away, for business development responsibility were the executive team (84.7%) and project managers (68.6%). Of course, client relationship and business development skills are among the reasons that executives are in a leadership role, after all. Project managers are usually the primary point of contact with clients and often operate in a "seller-doer" model where developing follow-on work is a key responsibility.

In firms that have dedicated business development staff, they are naturally more likely to be responsible for it. About half of participants reported they had dedicated staff, including one-third of small firms and more than 70% of large firms. In these cases, they had a higher level of responsibility than PMs. The general consensus that the number of firms using dedicated business development staff has increased in the last decade seems to be supported by the fact that even one-third of small firms reported having them.

Only a small minority of participants said their design team was responsible for business development, and a little more than one-third said that the marketing staff was, although these numbers were higher in larger firms.

Who is responsible for business development?



About half of participants reported they had dedicated business development staff, including one-third of small firms and more than 70% of large firms.

Go/No Go Process

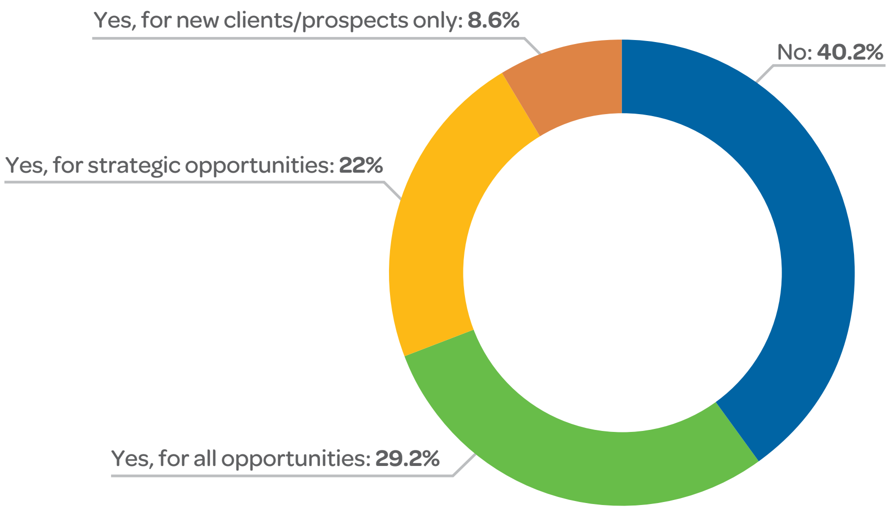
Do A&E firms employ a formal go/no go process?

A go/no go process is a structured decision-making tool that some A&E firms use to determine whether to pursue a project opportunity. It's often guided by a checklist or matrix of factors designed to measure the desirability of a project and the firm's likelihood of winning.

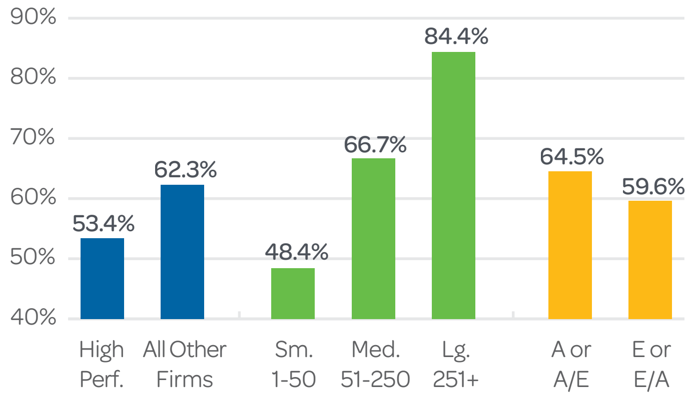
Overall, about 60% of A&E firms said they employ a go/no go process in at least some situations, 29.2% for all opportunities, and 30.6% for specific cases, especially "strategic" opportunities.

Far more large firms (84.4%) than small firms (48.4%) used a formal go/no go, and more than half of large firms said they use it for all opportunities. High Performing firms were a little less likely to use a go/no go process than other firms.

Do A&E firms employ a formal go/no go process?



How firms compare: Firms that employ some go/no go process



Win Rate

2014 Average

47.6%

A&E firms don't all define "Win Rate" or "Hit Rate" in the same manner. Some don't measure it at all. About 86% of study participants reported that they do track win rates. For this study, we chose the simplest possible definition: awards divided by proposals.

One industry rule of thumb puts the typical Win Rate at 50%, and the average for our study was 47.6%. Interestingly, High Performing firms had only a slightly higher Win Rate. Small firms and Engineering or E/A firms both had higher than average Win Rates.

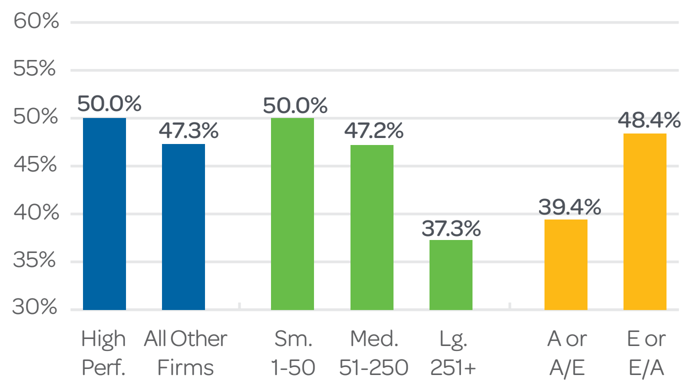
Two-thirds of participants said their Win Rate had increased slightly or stayed the same in the past two years, with larger firms appearing to improve a little more than their smaller counterparts. Only about 12% said it had decreased. High Performing firms by and large reported a significant increase in Win Rate.

This question was new to the Clarity study, and it will be interesting to track its changes in future editions.

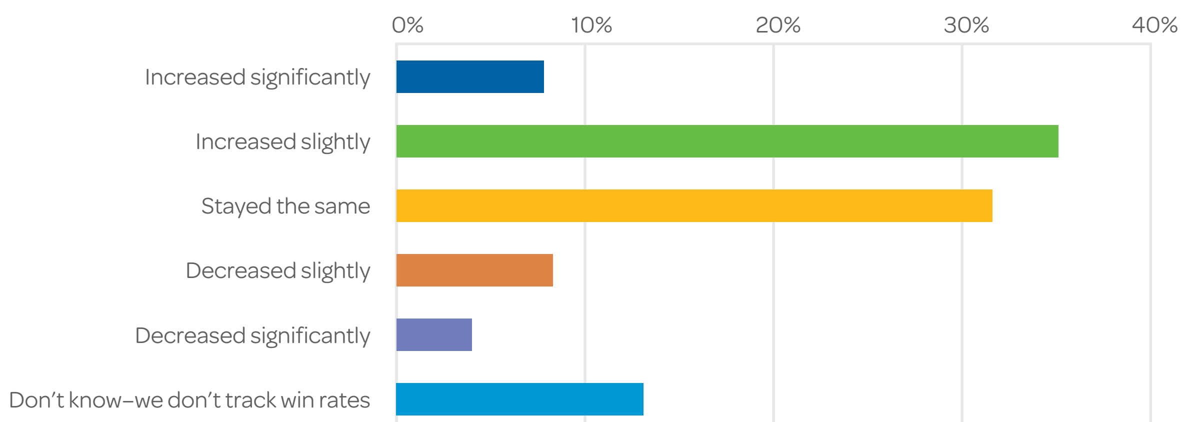
Win Rate is the total number of projects awarded divided by the total number of proposals submitted, times 100.

Win Rate	2014
Top Quarter	60.9%
Average	47.6%
Bottom Quarter	31.5%

How Firms Compare



How has your win rate changed in the past two years?



Outlook: Market Positions

In past Clarity studies, we asked participants to give their outlook for each of four primary markets for A&E services. This year's study introduced a more detailed market survey that covered 12 different markets and firm's position for the next 18 months. The result is a more fine-grained look at the state of all the major A&E markets.

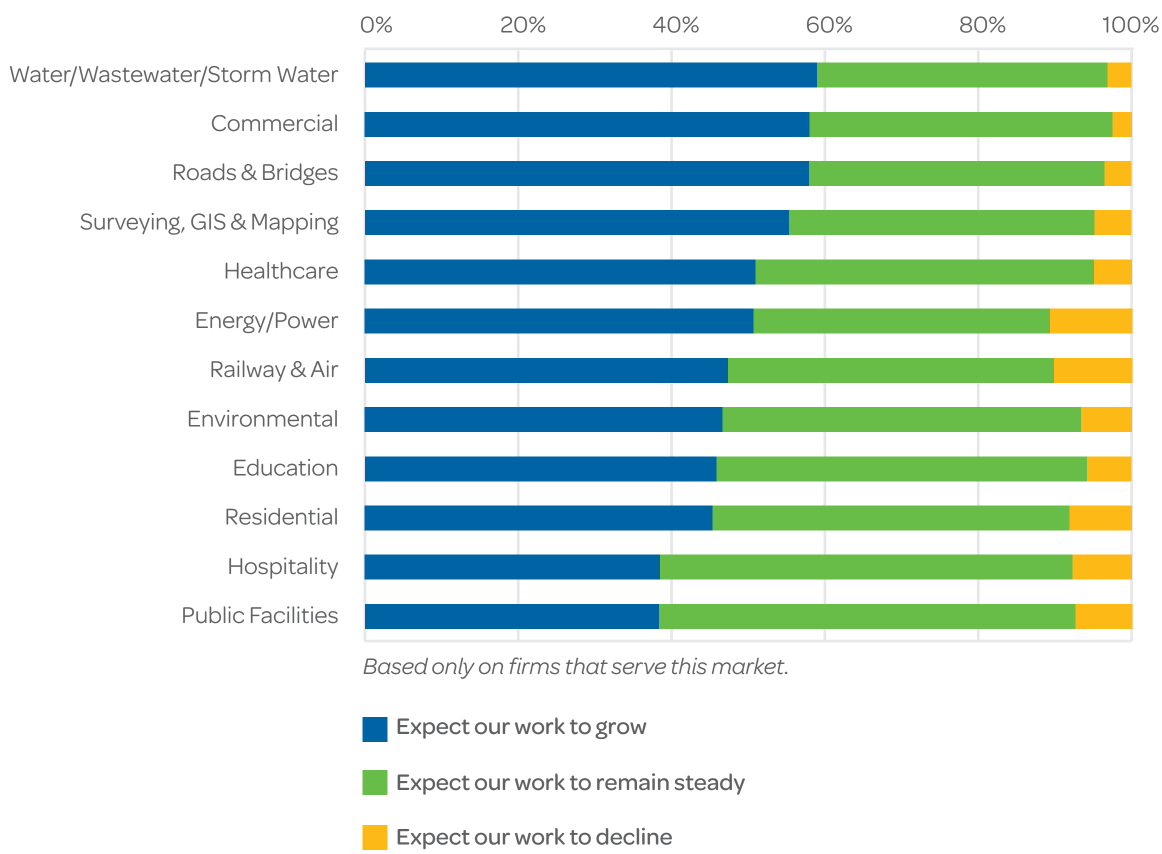
In every market we looked at, the overwhelming majority of participants active in that market are expecting their work to remain steady or to grow. In half of the markets, more than 50% of participants serving the market expected their work to grow. Water/Wastewater/Storm Water, Commercial, and Roads & Bridges stood out as the markets where the highest percentage of firms expected growth, while Public Facilities, Hospitality, and Residential lagged in growth outlook.

The only markets where more than 10% of firms expected their work to decline were Railway & Air (the market served by the smallest percentage of participants) and Energy/Power (a market where more than half of firms expected growth) reflecting the current uncertainty in the energy sector.

The most commonly served markets by participants were Commercial, Public Facilities, and Education. The least commonly served was Railway & Air.

(*Continued*)

Market Positions

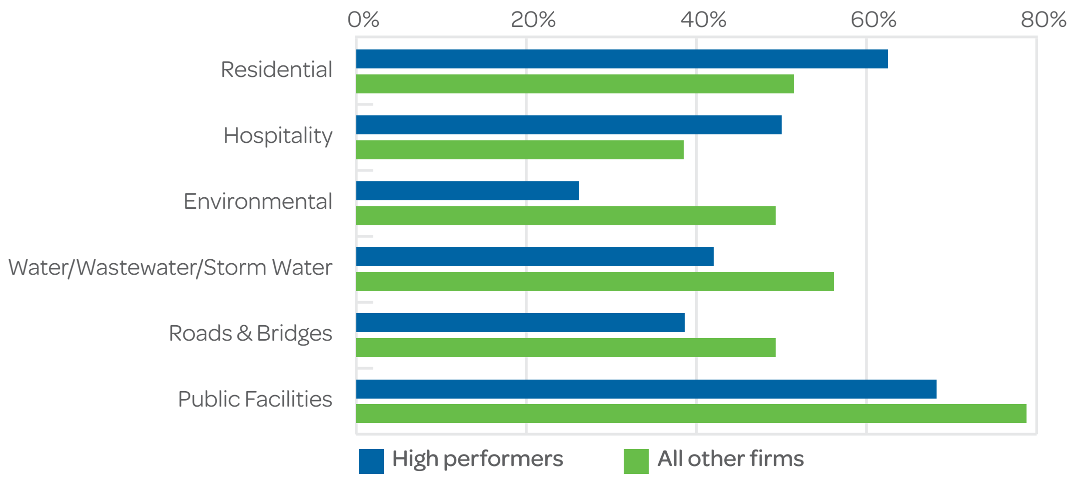


Based only on firms that serve this market.

Market Positions (cont.)

Looking at High Performing firms alone, can we get any insight into which markets they are serving? While some of them were involved to some degree in each market, Residential and Hospitality stood out as those where a higher percentage of High Performers were working. We know from their firm profile that High Performers in the study were more focused on private sector than public sector clients, and indeed fewer were serving markets like Water/Wastewater/Storm Water, Public Facilities, and Roads & Bridges, as well as Environmental.

Markets Served by High Performers



2015 Net Revenue Growth Forecast

Average

6.2% **+0.6**

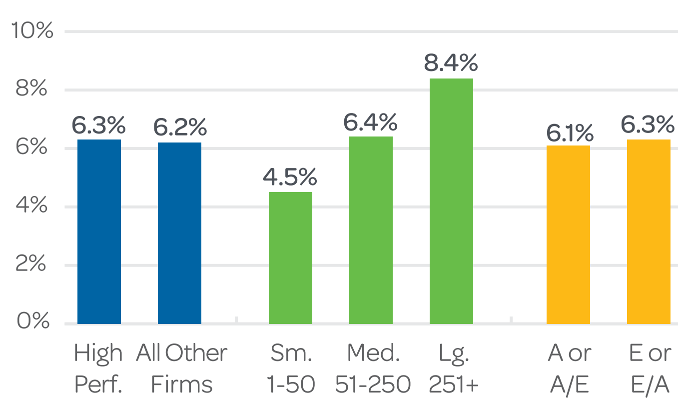
Building on the steady growth of the last several years, the average study participant forecasts Net Revenue to grow by 6.2% in 2015, a slight increase over last year's forecast. The top quarter of firms forecast 13.4% or higher growth, while the bottom quarter forecast revenue declines of 1.5% or greater.

	2015 Projection	2014 Projection
Top Quarter	13.4%	13.9%
Average	6.2%	5.6%
Bottom Quarter	(1.5%)	0.6%

Large firms were more bullish on revenue growth, predicting a growth rate twice as high as small firms. The average Engineering or E/A firm's forecast was slightly higher than that of Architecture or A/E firms. High Performing firms' revenue growth projections were no different from other firms, but remember our definition of performance was based on profitability, not growth.

We also asked participants to forecast their 2015 Operating Profit rate, and the average was 13.9% versus a 2014 actual average of 11.8%. Interestingly, High Performing firms forecast an average 20.9% Operating Profit rate for 2015, below their 25.9% average for 2014.

How Firms Compare



Clarity Outlook: Business Development

Competition and limited time will continue to pose the biggest business development challenges facing the A&E industry, and those firms that are able to confront these obstacles will be best positioned to grow and profit. The continuing growth of the A&E industry may ease competitive pressures, but not precipitously. That will necessitate earlier and better identification of opportunities through the deployment of centralized CRM systems.

The A&E industry, particularly large firms, will continue to increase its hiring of dedicated business development staff, but the traditional seller-doer model will still remain the industry standard. Those firms that can identify, hire, and retain quality personnel who can not only maintain strong relationships with existing clients but build business with new clients will gain significant competitive advantages as the industry's talent war continues to heat up.

Recovering municipal coffers and an improving economy look to bolster the Water/Wastewater/Storm Water and Commercial markets. There is pent-up demand in the Roads & Bridges market, but a long-term surface transportation bill will need to pass Congress for the market to meet its potential. Weakened federal government funding will continue to hamstring the Public Facilities market.

SECTION THREE

Project Management

Introduction

As the 36th annual *Deltek Clarity Architecture and Engineering Industry Study* reveals, profit margins in the A&E industry are improving, but still trailing pre-recession highs. Perhaps the quickest path A&E firms can take to improve financial performance and return to record profitability levels is through project management. Well-run projects result in higher profits, and even incremental project management improvements can produce significant bottom-line results, particularly on jobs with tight margins.

Qualified project managers ranked as the top aspect of what firms do well in their project management process.

Accurate project cost forecasting (52.3%) and collaboration and communication (47.4%) were the top ranked project management challenges.

In the average firm, 75% of current projects are on or under budget.

The average firm has 37% of its revenue tied up in just three clients, and half of that with just a single client

Improving Project Management a High Priority

For the first time, this year's Clarity study examined the A&E industry's best practices in project management, and the data reveals that while everyone acknowledges the importance of project management, there's a clear opportunity to truly raise the bar and make measurable improvements.

Let's start with budgets. According to the study, at any given time three quarters (75.0%) of the average A&E firm's projects are reporting on or under budget. The results look good at first glance, but it also means that one quarter (25.0%) of projects are not, which is particularly concerning when all it can take is one job to break the bottom line of some firms.

The Clarity study also found that too many project managers are flying blind and don't know whether their projects are even on budget. Although project managers need ready access to accurate, up-to-the-minute project information, more than half (57.9%) of respondents are not highly confident that the right people in their organizations have visibility into the accuracy of project milestones, schedules, and budgets. Of particular concern, 14.4% of firms have low or very low confidence in this area.

Study participants had greater confidence in the accuracy of their project information, with more than half (51.9%) of respondents having high or very high confidence in it. However, that means that nearly half of the industry does not totally trust the information it collects and disseminates to be complete, correct, and up-to-date. One reason for this is the A&E industry's lingering use of multiple repositories of project information rather than a single, unified "source of truth" that can eliminate the error-prone replication of data in multiple places.

Firms with mature project management capabilities develop and institutionalize a common approach to managing scope, schedules, resources, costs, risk, quality, and communications. However, 30.7% of study respondents say their project management is somewhat or very immature. This is one area where High Performers, in particular, differentiate themselves because they were over three times more likely than all other firms (27.0% to 8.0%) to say their project management was very mature.

Forecasting, Inexperienced PMs Top Challenges

Successful A&E firms are justifiably proud of their project management capabilities. Qualified project managers ranked in the study as the top aspect of their project management process. However, *inexperienced* project managers were most frequently ranked as the number one project management challenge, cited by 26.7% of respondents. More than half (52.3%) of A&E firm leaders report accurate project cost forecasting will be their first, second, or third greatest project management challenge in the next two to three years.

The importance of project managers who can keep clients satisfied is borne out by a lack of diversified client bases among A&E firms. The study found that the average A&E firm has 37.0% of its revenue tied up in just three clients. This is a particular problem for small firms, which have nearly half (45.0%) of their business coming from just three clients. A lack of diversification leaves A&E firms extremely vulnerable to market fluctuations and competition, placing a premium on project managers who not only communicate effectively with clients and make them happy, but are adept at prospecting for new clients.

Yet in spite of its importance, finding, developing, or keeping good project managers has been a perennial challenge for A&E firms. Too many firms test newly minted project managers by fire and then watch as project schedules and budgets go up in flames as a result.

The Path to Project Management Success

The good news for A&E firms is that there is a concrete path for improving project management through talent management, training, and easy-to-use technology systems tailored to project managers.

Having the right people in project management roles is critical. Although the typical career path moves architects and engineers into project management roles, not everyone is cut out to be a good project manager—and not everyone wants to be one either. Many professionals entered the industry to design projects, not to manage budgets, schedules, and people. Talent management and career path mapping are crucial for identifying, hiring, and promoting those people who have the passion and skill sets to interact with clients and excel as project managers, while also helping firms retain and leverage the skills of invaluable technical professionals who are passionate about the design and technical work.

Architecture and engineering school graduates receive little to no instruction in project management, so it's important for A&E firms to invest in training their project managers about the industry's best practices and the firm's best practices. In the past five years, Deltek's industry experts have seen a growing number of firms making this a priority. The industry is ready to take the problem of project management training seriously.

Project managers can't be expected to execute their jobs if they lack access to timely, accurate project information. The good news is that technology is improving with purpose-built interfaces tailored specifically for project managers and mobile tools that allow them to access up-to-the-minute budget and schedule information they need—when and where they need it. Ultimately, companies that invest in the technology and training that give their project managers the most effective tools to deliver jobs on time and on budget will be the ones reaping the benefits to their bottom lines and will win the war on talent.

Architecture and engineering school graduates receive little to no instruction in project management, so it's important for A&E firms to invest in training their project managers about the industry's best practices and the firm's best practices.

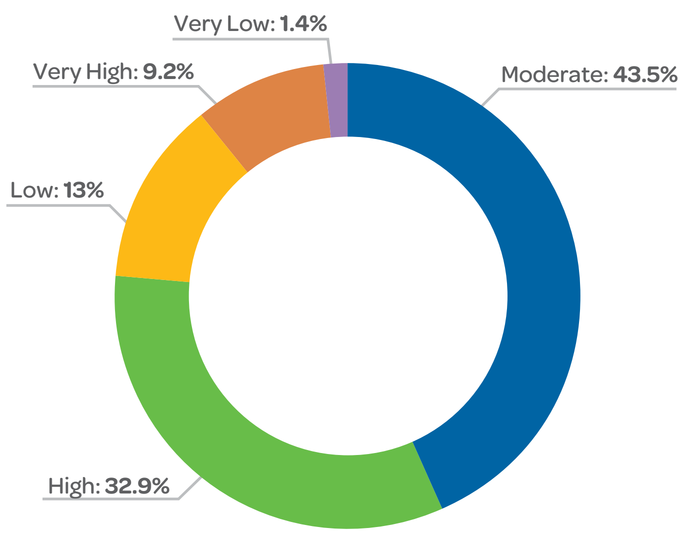
Project Status Visibility

How confident are A&E firms that the right people in their organizations have visibility into the accuracy of their projects' status? We're talking about milestones vs. actual schedule, budget vs. actual, and client satisfaction to date. In other words, is project information readily available to the right people at the right time?

While firms have made enormous progress in project management and accounting over the last decade, expectations and demands continue to rise for more access and insight from data anytime and anywhere managers need it.

More than 40% of firms said they had a high or very high level of visibility. This number was even higher among High Performing firms and large firms, more than half of whom rated their visibility as high or very high. On the other hand, one could argue that a "moderate" level of visibility simply isn't good enough for a project-based business, and certainly improvement is needed in the 14.4% of firms where it is low or very low.

How confident are firms that the right people have visibility into their projects' status?



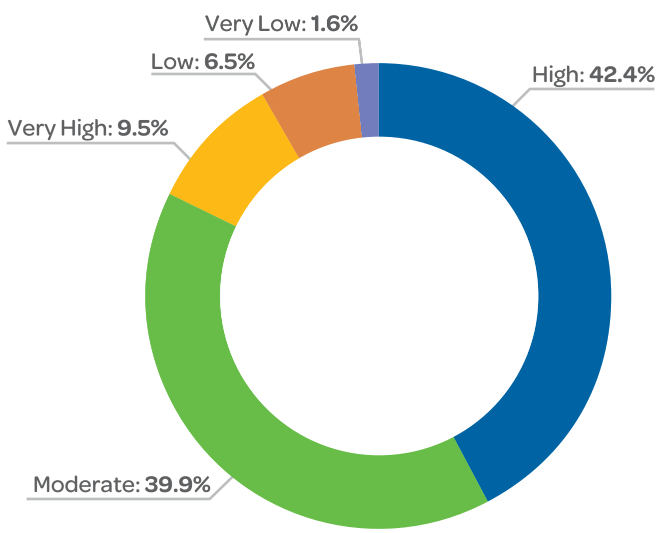
Project Report Accuracy

How confident are A&E firms in the accuracy of project status (schedule, budget vs. actual cost, etc.) being reported on current projects? Can they trust what they're seeing to be complete, correct, and up-to-date?

Gone are the days when principals, project managers, and financial leaders can wait until next Monday to see a printout that contains errors and only shows them one week's job status. Instead of the error-prone replication of data in multiple places, A&E firm leaders want "one source of truth" for all projects in one place.

By and large, study participants were more confident in the *accuracy* of their project data than in its *visibility*. More than half of all firms, and 62% of High Performers, rated their accuracy as high or very high. Interestingly, more small firms said their confidence was high or very high than did large firms, by a margin of 10 percent (55% to 45%).

How confident are firms in the accuracy of project status reporting?



While firms have made enormous progress in project management and accounting over the last decade, expectations and demands continue to rise for more access and insight from data anytime and anywhere managers need it.

Projects On or Under Budget

2014 Average

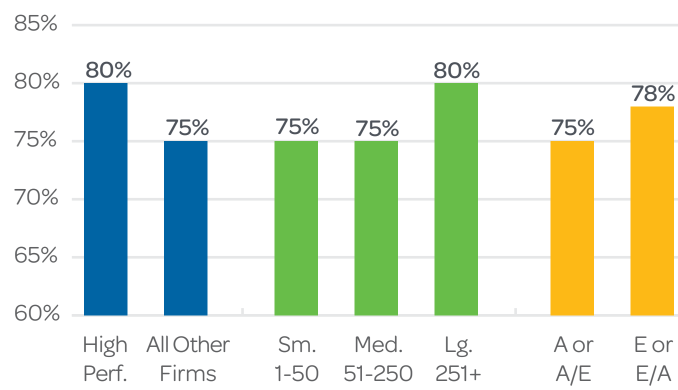
75%

What percentage of A&E firms' current projects are being reported as on or under budget? While it's not realistic to expect 100% of projects to always be on budget, the average firm-wide 11-12% profit margin doesn't leave much room for error. A big miss on just one large project could eat up the profits from all others combined.

The on-budget benchmark for all firms was 75%, with half of firms reporting between 65% and 85%. We didn't find a lot of variation, although it was 5% higher in High Performing firms and in larger firms. Firm leaders need to consider whether even 80% on budget is adequate and how improved project management can drive that percentage higher.

Projects On or Under Budget	2014
Top Quarter	85%
Average	75%
Bottom Quarter	65%

How Firms Compare



Firm leaders need to consider whether 80% on-budget is adequate and how improved project management can drive that percentage higher.

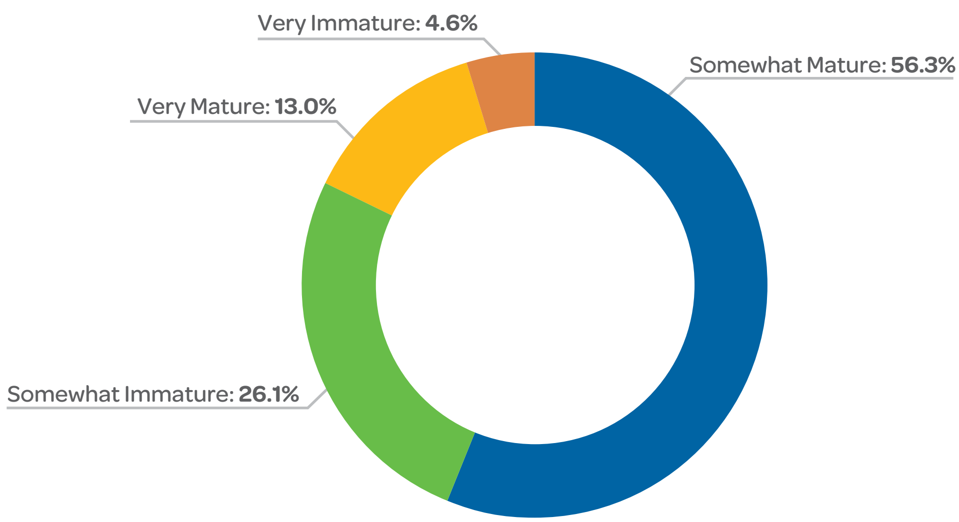
Project Management Maturity

How do A&E leaders rate the maturity of their firms' project management discipline? We asked participants to give a subjective grade, choosing from four options.

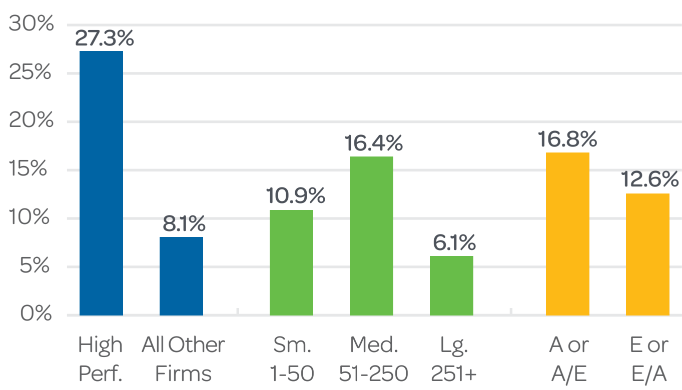
In an organization with mature project management capabilities, firms develop and institutionalize a common approach to managing scope, schedules, resources, costs, risk, quality, and communication.

Based on the study data, the A&E industry has an opportunity to do better. Only 13% rated their project management as very mature, and more than 30% said it was somewhat or very immature. High Performing firms were three times as likely to say their project management discipline was very mature, and the number who said it was immature was 10% percent lower than all firms.

How do A&E leaders rate the maturity of their firms' project management discipline?



How firms compare in rating their PM discipline as very mature



Project Management: What Firms Do Well

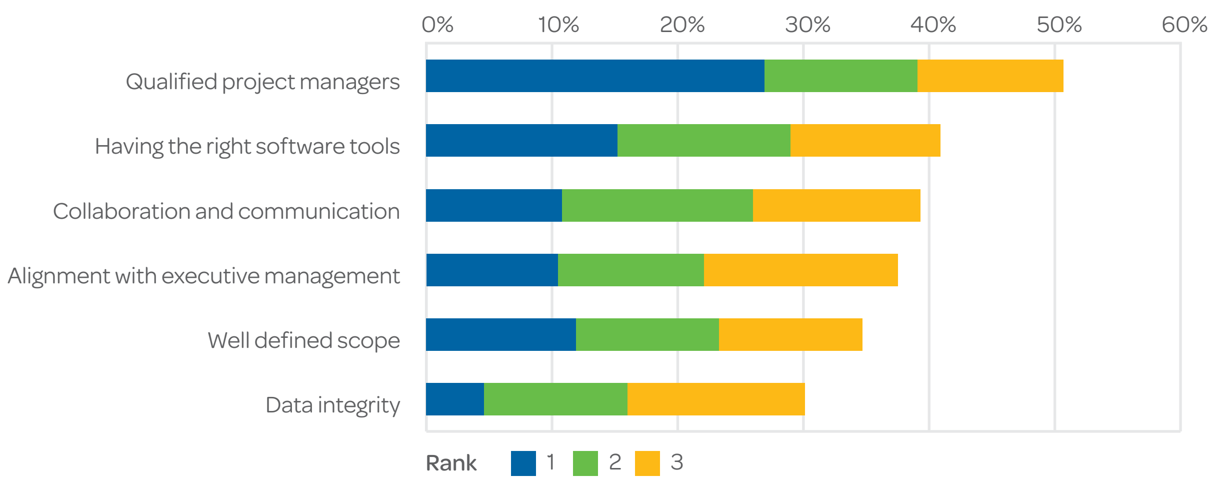
What do A&E firm leaders think their firms do well in their project management processes? We asked participants to select from a list of common choices and to rank them from highest to lowest. For this question, participants could select as many as they liked, and were not limited to just three.

After design or technical capabilities, project management is perhaps the most critical to an A&E firm's success. Firms won't survive without a high degree of competence in most aspects of project management, but which ones stand out?

About half of study participants ranked qualified project managers as the first, second, or third thing they do well in project management, followed by having the right software tools and collaboration and communication. At the other end of the spectrum, factors related to scheduling and cost forecasts came in very low in the ranking.

Large firms said they were doing better in terms of having the right software tools and much better in project management procedures, but by a two-to-one margin more small firms claimed credit for a well-defined scope. High Performing firms were slightly more likely to name qualified project managers and communication and collaboration as things they do well.

Project Management: What Firms Do Well



After design or technical capabilities, project management is perhaps most critical to an A&E firm's success.

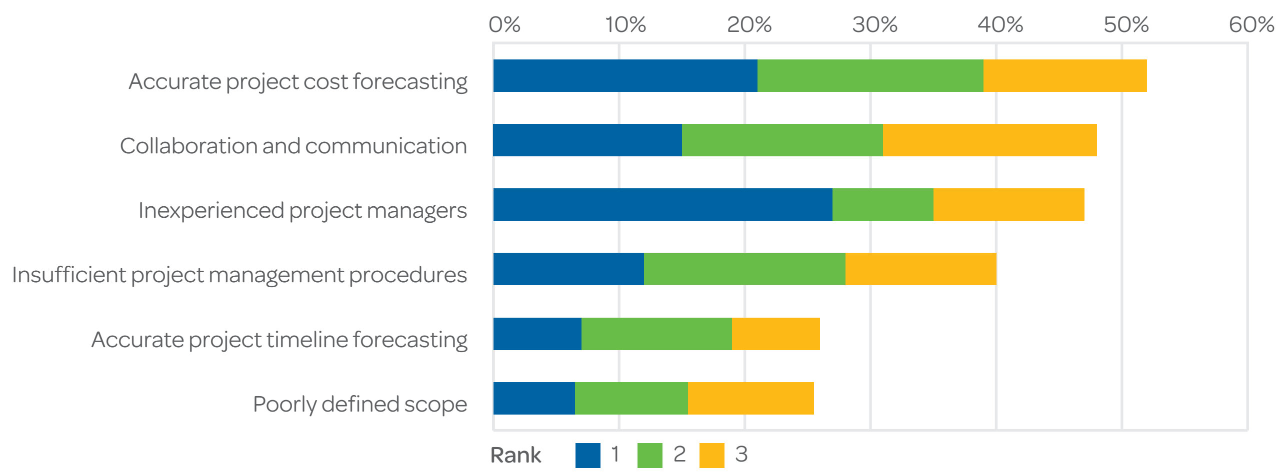
Project Management Challenges

What do A&E firm leaders think will be the top three challenges facing their project management function over the next two to three years? We asked participants to select from a list of common challenges and to rank their choices from highest to lowest. The options were tied to the factors we asked about in the previous question regarding what firms do well in project management.

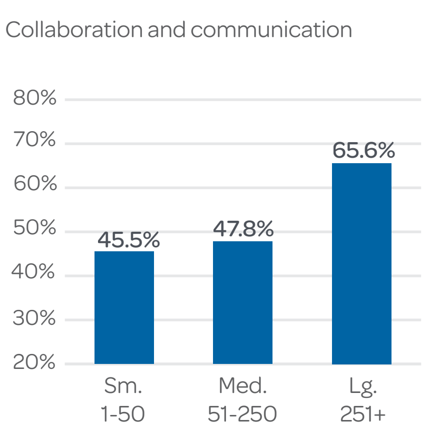
Looking at the combined ranking, accurate project cost forecasting was the most common challenge, while inexperienced project managers were most frequently ranked as the top challenge.

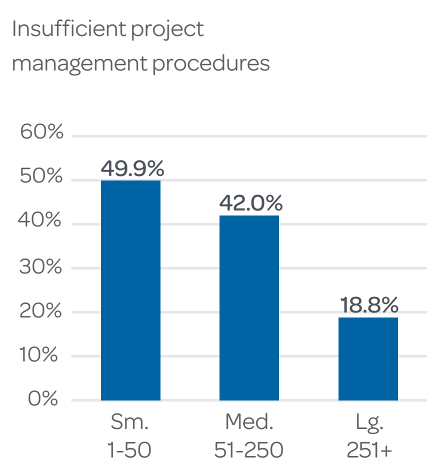
Nearly two-thirds of large firms said collaboration and communication was a challenge, compared to 45% of small firms. Far more large firms than small firms also cited scope and schedule challenges. Meanwhile, half of small firms said insufficient project management procedures were a challenge versus 19% of large firms.

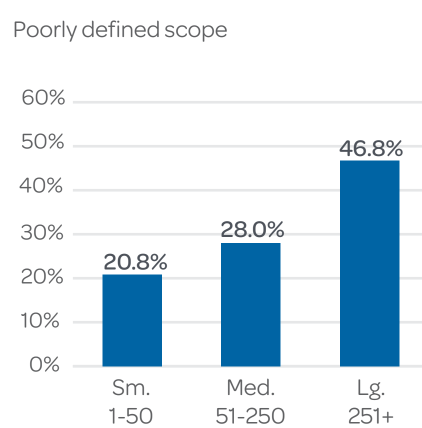
Project Management Challenges



How Firms Compare (by firm size, combined ranking)







Revenue Contributed by Top Three Clients

2014 Average

37%

What percentage of A&E firms' net revenue is contributed by their top three clients? Just like concentration of assets in one stock in an investment portfolio, concentration of business in one or a few clients can bring great rewards, but not without commensurate risk. Many things can tip the balance, including a small firm winning a big project or steady repeat business from a successful client, but it's hard to say what an acceptable level of concentration is. Surely, having a benchmark from other A&E firms would help.

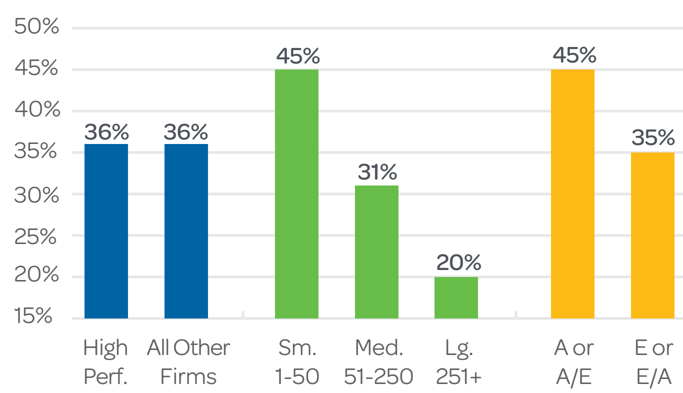
It's somewhat surprising, not to mention concerning, to find the data indicate that the average A&E firm has 37% of its revenue tied up in just three clients, and half of that with just a single client. The average small firm participant said that nearly half (45%) of its revenue came from just three clients, and more than a quarter of all firms had 60% or more of revenue coming from their top three clients.

Total of top three clients	2014
Top Quarter	60%
Average	37%
Bottom Quarter	25%

Distribution	2014
Client A	18%
Client B	10%
Client C	7%

** Medians are shown, so distribution and totals are not precisely additive.*

How Firms Compare



Clarity Outlook: Project Management

A&E firms that make project management a priority will find the quickest path to improved financial performance. Firms that make even incremental changes will see significant bottom-line results, particularly on jobs with tight profit margins.

More A&E firms are coming to the realization that project management training has been neglected for too long. Training programs that provide project managers with the communication, budgeting, and planning skills to complement their technical proficiencies will be extremely valuable.

Talent management systems will also aid A&E firms in identifying, hiring, and promoting those technical professionals who also have the passion and skills to excel as project managers.

Purpose-built interfaces tailored specifically for project managers and mobile tools that allow them to access up-to-the-minute budget and schedule information will allow A&E firms to have greater confidence in the visibility and accuracy of project information.

Statistics at a Glance

Key Performance Indicators

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
Net Revenue per Employee	$129,689	$157,634	$122,031	$121,854	$133,918	$142,780	$130,928	$131,011
Total Revenue per Employee	$162,179	$202,979	$151,410	$149,619	$166,323	$179,524	$190,016	$152,374
Operating Profit on Net Revenue	11.8%	25.9%	9.3%	11.6%	11.8%	12.2%	12.8%	11.%
Operating Profit on Total Revenue	9.2%	20.1%	7.3%	8.9%	9.5%	9.2%	8.5%	10.10%
EBITDA on Net Revenue	8.0%	16.9%	6.6%	8.6%	7.7%	7.3%	7.8%	7.6%
Utilization Rate	60.0%	61.8%	59.1%	60.4%	59.8%	58.8%	59.3%	60.5%
Utilization Rate (excluding Vacation, Holiday, Sick)	66.2%	68.0%	65.4%	66.6%	65.8%	66.4%	65.9%	66.5%
Net Labor Multiplier	2.97	3.34	2.86	2.97	2.98	2.97	3.06	2.94
Total Payroll Multiplier	1.77	2.12	1.7	1.8	1.75	1.76	1.81	1.75
Overhead Rate	160.0%	156.4%	162.7%	159.8%	160.4%	158.4%	165.4%	155.1%
Overhead Rate (including Bonuses)	179.2%	190.8%	174.8%	175.8%	181.3%	176.3%	185.7%	173.9%
Staff Growth	4.7%	10.0%	3.1%	5.1%	4.4%	5.7%	5.1%	5.3%
Employee Turnover	13.7%	11.6%	14.3%	12.5%	15.5%	12.8%	12.6%	13.5%
Total Employee Cost	$88,001	$88,273	$87,883	$84,450	$89,475	$93,820	$85,951	$89,901
Operating Profit Rate Year-over-Year Change Estimate	2.7%	-6.3%	7.8%	1.5%	3.6%	9.1%	-10.3%	5.0%

Balance Sheet Ratios

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
Current Ratio	2.44	2.75	2.41	2.79	2.39	1.92	2.03	2.51
Debt to Equity Ratio	0.82	0.57	0.94	0.53	0.98	1.09	0.88	0.82
Average Collection Period (Days A/R)	75	80	74	76	76	65	79	74
Work in Process (Days)	6	6	7	3	8	24	3	9
Working Capital per Employee	$29,766	$39,570	$26,258	$28,104	$30,393	$31,066	$30,848	$28,327
Total Assets per Employee	$63,775	$76,275	$59,383	$57,737	$69,502	$74,493	$71,839	$61,977
Total Liabilities per Employee	$28,984	$32,061	$28,753	$23,171	$33,386	$45,980	$39,673	$27,226
Total Equity per Employee	$32,799	$43,925	$28,454	$31,529	$32,799	$35,413	$33,282	$32,798
Net Fixed Assets (excluding Goodwill) per Employee	$6,922	$8,112	$6,391	$5,400	$7,444	$7,698	$6,990	$6,853
Pre-tax Return on Assets	10.4%	27.7%	7.0%	12.8%	9.1%	8.4%	9.5%	10.5%
Pre-tax Return on Equity	19.6%	43.3%	14.9%	22.1%	16.9%	20.9%	19.6%	18.0%
Pre-tax Return on Invested Capital	16.5%	42.1%	13.0%	20.1%	15.7%	15.6%	18.4%	15.7%
Pre-tax Return on Working Capital	23.9%	56.3%	18.9%	27.1%	21.0%	23.9%	22.8%	22.7%
Backlog - Beginning of Year per Employee	$76,556	$90,213	$71,091	$54,238	$78,431	$104,957	$77,254	$78,164
Backlog - End of Year per Employee	$82,791	$97,000	$77,299	$64,025	$91,597	$104,461	$85,092	$83,398
Months Backlog (End of Year)	6.5	6.8	6.4	5.2	6.8	8.2	6.3	6.8

Income Statement Detail (per Employee)

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
TOTAL REVENUE								
Total Revenue per Employee	$162,179	$202,979	$151,410	$149,619	$166,323	$179,524	$190,016	$152,374
DIRECT EXPENSES								
Consultants per Employee	$17,545	$19,410	$17,119	$16,753	$18,756	$22,427	$45,493	$13,264
Bad Debt per Employee	$121	$121	$116	$90	$192	$15	$15	$114
All Other Direct Expenses per Employee	$4,170	$5,743	$3,727	$3,355	$4,417	$6,467	$4,467	$3,769
Total Direct Expenses per Employee	$27,986	$31,363	$26,566	$22,597	$29,964	$34,504	$55,145	$20,161
NET REVENUE								
Net Revenue per Employee	$129,689	$157,634	$122,031	$121,854	$133,918	$142,780	$130,928	$131,011
DIRECT LABOR								
Direct Labor per Employee	$43,300	$44,412	$42,245	$41,392	$43,920	$45,984	$40,770	$44,388
GROSS PROFIT								
Gross Profit per Employee	$85,441	$111,166	$79,560	$81,630	$86,895	$92,248	$87,572	$85,513
INDIRECT LABOR								
Vacation, Holiday, Sick & Personal per Employee	$6,848	$6,488	$6,950	$6,274	$6,903	$8,407	$6,827	$6,874
Marketing per Employee	$3,637	$3,050	$3,896	$3,020	$4,017	$6,617	$4,048	$3,349
Job Cost Variance per Employee	$0	$0	$0	$0	$0	$0	$0	$0
All Other Indirect Labor per Employee	$17,998	$17,131	$18,153	$17,991	$17,998	$17,969	$17,542	$17,967
Total Indirect Labor per Employee	$28,631	$26,197	$29,382	$27,169	$28,614	$31,253	$28,376	$28,543
LABOR-RELATED EXPENSES								
Statutory Taxes per Employee	$6,006	$6,122	$5,956	$5,702	$6,123	$6,086	$6,096	$6,022
Workers' Comp per Employee	$291	$258	$303	$307	$282	$268	$268	$287
Group Health, Life, Etc. per Employee	$5,675	$5,712	$5,654	$4,986	$6,159	$6,719	$5,642	$5,905
401(k) Match, Pension Plan, Etc. per Employee	$2,056	$2,683	$1,949	$1,815	$2,241	$2,751	$1,722	$2,258
All Other Labor-Related Expenses per Employee	$135	$65	$140	$73	$111	$623	$45	$186
Total Other Labor-Related Expenses per Employee	$15,207	$16,259	$14,811	$14,281	$15,574	$17,099	$14,306	$15,581
OTHER STAFF EXPENSES								
Professional Licenses, Registrations, Dues, Etc. per Employee	$448	$483	$437	$432	$454	$440	$507	$422
Conference & Continuing Educ. Registrations & Fees per Employee	$430	$462	$426	$378	$462	$634	$274	$472
Travel & Meals (Non-Project, Non-Marketing) per Employee	$629	$646	$626	$437	$718	$1,535	$630	$628
All Other Staff-Related Expenses per Employee	$229	$302	$193	$159	$234	$541	$250	$245
Total Other Staff Expenses per Employee	$2,091	$2,437	$1,989	$1,780	$2,145	$3,216	$2,039	$2,090
MARKETING EXPENSES (NON-LABOR)								
Marketing Printing & Reproductions per Employee	$109	$139	$99	$117	$101	$206	$166	$98
Conference/Convention Exhibits & Materials per Employee	$60	$0	$79	$0	$106	$247	$116	$51
Marketing Travel per Employee	$71	$15	$86	$31	$100	$418	$106	$51
Marketing Meals & Entertainment per Employee	$148	$163	$144	$141	$122	$302	$169	$134
All Other Marketing Expenses per Employee	$417	$540	$377	$409	$406	$554	$731	$371
Total Marketing Expenses per Employee	$1,410	$1,480	$1,357	$1,286	$1,341	$1,738	$1,995	$1,270

Note: Account categories may not add up precisely because these are median values for the aggregate of all firms.

Medians

Income Statement Detail (per Employee)

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
FACILITY EXPENSES								
Rent per Employee	$5,643	$5,610	$5,653	$5,425	$5,553	$6,410	$6,601	$5,403
Telephone, Internet & Other Communication Expenses per Employee	$1,061	$986	$1,066	$983	$1,096	$1,495	$1,043	$1,069
Autos, Trucks, Field Equip., Etc. per Employee	$437	$367	$453	$588	$389	$349	$54	$750
Computer Software, Hardware & Equipment per Employee	$1,990	$2,161	$1,936	$1,634	$2,097	$2,461	$2,454	$1,970
Office Supplies per Employee	$826	$968	$799	$827	$837	$805	$758	$878
Depreciation & Amortization per Employee	$2,223	$2,216	$2,225	$2,081	$2,186	$2,720	$1,978	$2,256
All Other Facility Expenses per Employee	$907	$892	$908	$919	$907	$775	$888	$901
Total Facility Expenses per Employee	$14,793	$14,710	$14,832	$14,297	$14,631	$15,450	$15,529	$14,555
CORPORATE EXPENSES								
Professional Liability Insurance per Employee	$1,369	$1,273	$1,383	$1,472	$1,290	$1,174	$1,691	$1,296
General & Other Liability Insurance per Employee	$421	$421	$423	$332	$507	$365	$319	$464
Accounting, Legal & Other Professional Services per Employee	$1,142	$1,217	$1,126	$1,062	$1,205	$1,089	$1,124	$1,084
Other Business Licenses & Taxes per Employee	$210	$224	$205	$217	$191	$264	$234	$157
All Other Corporate Expenses per Employee	$691	$634	$696	$712	$578	$992	$352	$752
Total Corporate Expenses per Employee	$4,686	$4,834	$4,673	$5,240	$4,625	$4,317	$4,829	$4,668
TOTAL OVERHEAD								
Total Overhead Expenses per Employee	$68,915	$69,021	$68,605	$66,005	$69,320	$71,306	$69,751	$67,820
OPERATING PROFIT								
Operating Profit (Loss) per Employee	$14,969	$40,619	$11,379	$14,613	$15,544	$16,303	$16,158	$15,080
INTEREST, BONUS, OTHER								
Interest-Net per Employee	$141	$61	$164	$96	$178	$136	$96	$164
Bonuses per Employee	$5,068	$11,433	$3,232	$3,900	$6,063	$6,536	$4,671	$5,176
Other (Income) or Expense per Employee	$0	$0	$0	$0	$0	-$3	$0	$0
PRE-TAX INCOME (LOSS)								
Pre-Tax Income (Loss) per Employee	$7,048	$22,538	$5,124	$7,430	$6,751	$7,553	$6,437	$6,953
TAXES								
Taxes per Employee	$0	$0	$0	$0	$31	$932	$0	$0
NET PROFIT								
Net Profit (Loss) per Employee	$6,012	$20,758	$4,463	$7,135	$5,536	$5,127	$5,976	$5,656

Note: Account categories may not add up precisely because these are median values for the aggregate of all firms.

Medians

Balance Sheet Detail (per Employee)

ASSETS	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
CURRENT ASSETS								
Cash per Employee	$4,842	$10,036	$4,051	$4,393	$4,458	$10,638	$5,144	$4,600
Accounts Receivable per Employee	$33,050	$41,423	$31,565	$31,680	$34,287	$31,980	$42,085	$31,336
Work-In-Process per Employee	$2,870	$2,850	$2,891	$1,165	$3,699	$10,188	$1,408	$3,916
Prepaid Expenses per Employee	$1,386	$1,584	$1,289	$732	$1,730	$2,284	$1,323	$1,394
Other Current Assets per Employee	$115	$91	$119	$16	$145	$1,204	$138	$109
Total Current Assets per Employee	$50,940	$65,364	$46,712	$44,824	$54,736	$56,155	$58,621	$48,257
FIXED ASSETS								
Fixed Assets (except Goodwill) per Employee	$26,771	$25,803	$27,763	$25,848	$27,488	$29,785	$27,712	$27,036
Depreciation per Employee	-$20,110	-$16,644	-$21,054	-$20,235	-$19,925	-$20,840	-$19,802	-$20,179
Goodwill (net of amortization) per Employee	$0	$0	$0	$0	$0	$1,458	$0	$0
Total Fixed Assets per Employee	$7,727	$8,426	$7,522	$6,141	$8,841	$9,278	$7,401	$8,310
OTHER LONG-TERM ASSETS								
Other Long-Term Assets per Employee	$7	$13	$1	$0	$188	$2,119	$0	$49
Total Other Long-Term Assets per Employee	$400	$504	$386	$0	$699	$2,547	$115	$631
TOTAL ASSETS								
Total Assets per Employee	$63,775	$76,275	$59,383	$57,737	$69,502	$74,493	$71,839	$61,977

LIABILITIES & STOCKHOLDERS' EQUITY	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
ACCOUNTS PAYABLE								
Accounts Payable - Consultants per Employee	$2,286	$1,857	$2,481	$2,665	$1,970	$2,453	$9,797	$1,417
Accounts Payable - Vendors per Employee	$1,077	$938	$1,110	$728	$1,166	$1,766	$1,016	$979
Total Accounts Payable per Employee	$4,530	$4,907	$4,513	$4,293	$4,614	$5,584	$11,264	$3,928
ACCRUED EMPLOYEE EXPENSE								
Accrued Employee Salaries per Employee	$1,444	$1,637	$1,402	$849	$1,766	$1,787	$158	$1,899
Accrued Employee Vacation, Sick, Etc. per Employee	$1,602	$1,296	$1,712	$0	$2,181	$3,051	$608	$2,158
Other Accrued Employee Expense per Employee	$208	$515	$202	$32	$854	$1,391	$22	$531
Total Accrued Employee Expenses per Employee	$4,970	$5,612	$4,904	$3,052	$5,974	$8,609	$2,555	$5,935
OTHER CURRENT LIABILITIES								
Line-of-Credit and Short-Term Notes Outstanding per Employee	$2,014	$358	$2,714	$1,873	$2,296	$764	$1,638	$2,312
Other Current Liabilities per Employee	$1,167	$1,835	$1,086	$346	$1,928	$5,448	$1,355	$1,248
Total Other Current Liabilities per Employee	$6,424	$6,011	$6,466	$5,093	$7,587	$7,753	$7,739	$6,399
TOTAL CURRENT LIABILITIES								
Total Current Liabilities per Employee	$19,921	$21,674	$19,545	$14,917	$22,467	$25,069	$26,148	$19,231
LONG-TERM LIABILITIES								
Long-Term Debt per Employee	$1,730	$936	$2,109	$267	$2,740	$2,796	$1,432	$1,727
Total Long-Term Liabilities per Employee	$6,023	$2,516	$7,190	$2,787	$8,746	$12,654	$6,100	$5,969

Note: Account categories may not add up precisely because these are median values for the aggregate of all firms.

Medians

LIABILITIES & STOCKHOLDERS' EQUITY	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
Total Liabilities								
Total Liabilities per Employee	$28,984	$32,061	$28,753	$23,171	$33,386	$45,980	$39,673	$27,226
Stockholders' Equity								
Stock & Additional-Paid-In Capital per Employee	$1,277	$714	$1,675	$676	$1,825	$8,780	$1,109	$1,675
Previous Years Retained Earnings per Employee	$23,300	$25,483	$22,606	$22,403	$25,357	$21,017	$23,108	$22,306
Current Net Profit (Loss) per Employee	$5,703	$19,657	$4,392	$6,960	$5,547	$4,903	$5,771	$5,348
Total Stockholders' Equity per Employee	$32,799	$43,925	$28,454	$31,529	$32,799	$35,413	$33,282	$32,798
Total Liabilities & Stockholders' Equity								
Total Liabilities & Stockholders' Equity per Employee	$63,775	$76,275	$59,409	$57,737	$69,502	$74,493	$71,839	$61,977

Note: Account categories may not add up precisely because these are median values for the aggregate of all firms.

BUSINESS DEVELOPMENT METRICS

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
Total Revenue Year-Over-Year Change Estimate	6.4%	5.0%	6.6%	6.6%	6.4%	5.6%	6.4%	6.6%
Net Revenue Year-Over-Year Change Estimate	6.2%	6.3%	6.2%	4.5%	6.4%	8.4%	6.1%	6.3%
Operating Profit Rate Forecast	13.9%	20.9%	11.7%	14.4%	13.7%	13.9%	14.5%	14.5%
How many proposals did you submit in 2014 and how many were awarded?: Total number of proposals submitted	150	87	170	75	203	382	55	211
How many proposals did you submit in 2014 and how many were awarded?: Total number awarded	63	35	80	33	96	164	17	98
Win Rate	47.6%	50.0%	47.3%	50.0%	47.2%	37.3%	39.4%	48.3%

PROJECT MANAGEMENT METRICS

	All Participants	High Performers	All Other Firms	Small 1–50	Medium 51–250	Large 251+	Architecture or A/E	Engineering or E/A
What percentage of your organization's current projects are being reported as on or under budget?	75%	80%	75%	75%	75%	80%	75%	78%
What percentage of your firm's net revenue is contributed by your firm's top three clients? : Client A	18%	18%	17%	23%	15%	10%	21%	17%
What percentage of your firm's net revenue is contributed by your firm's top three clients? : Client B	10%	10%	10%	13%	9%	6%	15%	9%
What percentage of your firm's net revenue is contributed by your firm's top three clients? : Client C	7%	7%	7%	9%	6%	5%	9%	7%
Percentage of firm's net revenue contributed by top three clients combined	37%	36%	36%	45%	31%	20%	45%	35%

Medians

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In Collaboration With

American Council of Engineering Companies

The American Council of Engineering Companies (ACEC) is the voice of America's engineering industry. ACEC is a large federation of 51 state and regional councils representing the great breadth of America's engineering industry. Council members—numbering more than 5,000 firms representing more than 500,000 employees throughout the country—are responsible for more than $200 billion of private and public works annually that propel the nation's economy and enhance and safeguard America's quality of life.

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