Deltek

Clarity: Architecture & Engineering Industry Study

43rd Annual Comprehensive Report

In collaboration with:

ACEC
American Council of Engineering Companies

Association of Consulting Engineering Companies | Canada
Association des firmes d'ingénieurs-conseils | Canada

AIA

smps
Society for Marketing Professional Services

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INTRO

Architecture and Engineering (A&E) firms rebounded in 2021, their growth fueled by flourishing project pipelines. The pressure to deliver was – and continues to be – a focus, with heavy staffing challenges expected to continue in 2022.

The American Institute of Architects reported that architecture firms ended 2021 on a "high note with strong business conditions." The Architecture Billings Index (ABI) score for December rose to 51.0, a six-point increase from 44.9 in January 2021. As a result, firms are poised for a strong year with improvements in topline revenue fueled by overall market gains and anticipated increases in infrastructure spending. That said, many firms face a difficult reality of navigating tighter margins, increased labor costs and staffing shortages across the business.

The workplace challenges of the past two years have served as a catalyst for many to rethink their career goals, work/life balance, location and desired company culture. Increases in regrettable attrition and fervent company switching resulted. Firms will need to place a heavier focus on attracting, retaining and developing their people, leveraging new technology tools and tactics in addition to their "tried and true" methods.

Although business development pipelines look strong, firms will need to think more strategically about the projects that they pursue. Do they have enough staff with the right skills to manage projects won? Will they be profitable? The need for greater attention to project management fundamentals and execution will intensify as firms seek to capitalize on increased opportunities.

Fortunately, investment in supporting technologies increased, with project execution and project management taking the top technology application spots. Continued investment in these areas will be critical for firms to take full advantage of the promising outlook of the next few years.

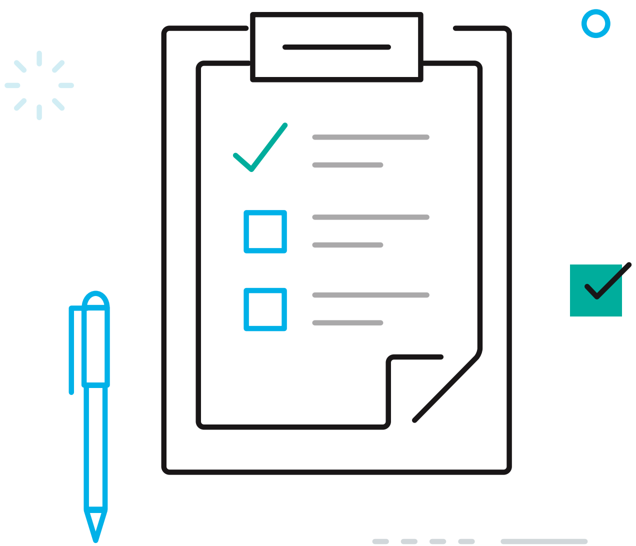
Participants completed the survey using 2021 fiscal data. Unless otherwise noted, values in this report represent median values within a specified group or segment – half of the firms in that group or segment are higher and half are lower.

Please take the time to review the data and information contained in the report to evaluate how your firm compares with your peers and competitors. Leverage the industry benchmarks and market conditions to inform your business decisions and better position your firm for measurable success in the coming year.

17.6% Net revenue growth forecast the highest in 10 years

13.6% Employee turnover increased across all firms

ABOUT THE STUDY



For the last 43 years, Deltek has conducted an annual survey of firms in the Architecture & Engineering industry to identify key performance indicators, market conditions and industry trends. The Study is developed in collaboration with industry organizations.

Methodology

The online survey was developed in partnership with CMG Consulting and conducted between February and March 2022, with financial metrics captured covering 2021 financial performance. The 43rd Annual Deltek Clarity Architecture & Engineering Study includes data from a variety of firms from all sizes and geographies across the United States and Canada.

Firm Type

The umbrella term of Architecture & Engineering (A&E) refers to all architecture, engineering and allied firms included in the Study. Three broad categories are broken out for deeper analysis:

- 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 are also known in the industry as “big A, little E” firms. In this report, 40% of participants were in the A or A/E category.
- 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 report, 54% of participants were in the E or E/A category.
- “Other” refers to the companies in the industry that do not fit into either category based on the traditional definition but are critical to the delivery of projects. Such firms might include environmental science, fire protection, surveying or others operating within the industry. This year, 6% of the Study’s respondents fell into this category.

Firm Size and Region

The size of participating firms was diverse when measured by the number of employees. Deltek defines small, medium and large in the following way:

- Small: 0-50 employees (41% of participants)
- Medium: 51-250 employees (41% of participants)
- Large: 251+ employees (18% of participants)

Participating firms have headquarters in the United States or Canada.

The geographical distribution of firms follows:

- **United States 94%**
  - West 29%
  - Midwest 29%
  - South 16%
  - Northeast 15%
  - Washington D.C., Maryland, Virginia 5%
- **Canada 6%**

High Performers

Each year, Deltek breaks out a group of high performers for additional analysis. High-performing firms are defined as those achieving a net labor multiplier of 3.0 or higher and an operating profit on net revenue of 15% or higher. This year, high performers comprised 14% of all Study participants.

More than 540 firms participated in the Study, representing a broad cross-section of businesses within the Architecture and Engineering industry in North America.

EXECUTIVE SUMMARY

Growing pipelines and increased revenue projections are intensifying firms' focus on closing their staffing gaps, leveraging technology for more efficient delivery and increasing transparency and use of Key Performance Indicators (KPIs) to operate more strategically.

Firms rebounded last year with continued optimism expected for the coming year, driven by favorable market conditions and continued volume of potential projects. While revenue projections are up and financials remained stable, increased labor costs, staffing challenges and inflation may start to impact project margins and overall profitability.

Performance against key project management metrics remained steady, aided by an increased focus on internal best practices and investments that help firms manage and execute projects more efficiently. By prioritizing small technology investments with immediate payback, firms can outpace the competition and offer the advanced services clients demand.

- Firms must be strategic about the opportunities they pursue
- Closing talent, skills and technology gaps will be required to deliver successful projects
- Addressing near-term labor challenges requires firms to invest strategically and purposefully
- Expansion of KPIs will allow firms to combine retrospective and forward-looking measurements
- Firms must continue to leverage technology to reduce the cost of time-intensive and manual tasks

SECTION ONE

Technology Trends

Firms expressed a renewed interest in emerging technology trends, with increased focus on applying them to project-related functions.

Interest in technology bounced back this year as firms prioritized tech investments in core business areas, such as project execution and project management. Supportive functions, like financial management, also gained traction.

Firms showed more interest in technologies like geolocation and Internet of Things (IoT) as the most relevant emerging technology trends, but how firms can best apply them to projects and businesses remains to be seen.

34% **Plan to invest in Augmented/Virtual Reality**
Thirty-four percent plan to invest in Augmented/Virtual Reality, specifically related to project execution.

ADDRESSING TOP THREE TECHNOLOGY CHALLENGES

1 **Lack of time to invest in learning**. Robust project pipelines are requiring dedicated project management and execution resources, which is taking priority over learning new technologies. To bridge the gap, firms can leverage tech-savvy employees to champion technology initiatives in their project execution, thereby alleviating the near-term pressure to hire additional, dedicated and potentially costly hires.

2 **Cost of technology**. Firms should focus investment on one or two initiatives that turn up return on investment (ROI) and meet key strategic criteria. Sometimes tech tools are already in house and just need a champion to further leverage their value across the firm.

3 **Prioritizing which trends are most applicable.** Once firms have a tech champion identified, they can be tasked with assessing where the firm and its clients will benefit most from technology by identifying prioritization criteria, such as project efficiency, scheduling, finance, human capital management (HCM) and client satisfaction.

Digital Progress

Technology helps A&E firms manage and execute projects more efficiently and cost-effectively, align business development and project delivery efforts and better manage the people side of the business.

The Internet of Things (IoT) and augmented/virtual reality are showing early signs of adoption in the A&E industry. However, implementation is a challenge for many firms that don't have the time or resources dedicated to the effort.

In fact, lack of time to invest in learning leapfrogged technology costs as the biggest barrier to emerging technology adoption, impacting 56% of firms surveyed. This lack of time is likely due in part to staffing shortages. Data suggests that A&E firms need to better leverage the talent already on board to assess existing tech capabilities, evaluate new technologies and acquire new tech as needed to keep up with the pace of change. Many firms are tapping into younger, tech-savvy workers to introduce new technologies into project management and execution practices.

With the wide range of new and emerging technologies available, and robust project pipelines, A&E firms are in a win-win position. Those that work through the challenges and strike the right balance between technology and project execution will start to take off sooner and faster than the competition.

"Nearly all firms that have made notable to full investment in project and firm management technology indicated that it has allowed for better communications/ smoother interaction within the project team, while a significant share also indicated that these technologies have allowed their firm to operate more productively/profitably, and save time and money through increased efficiency."

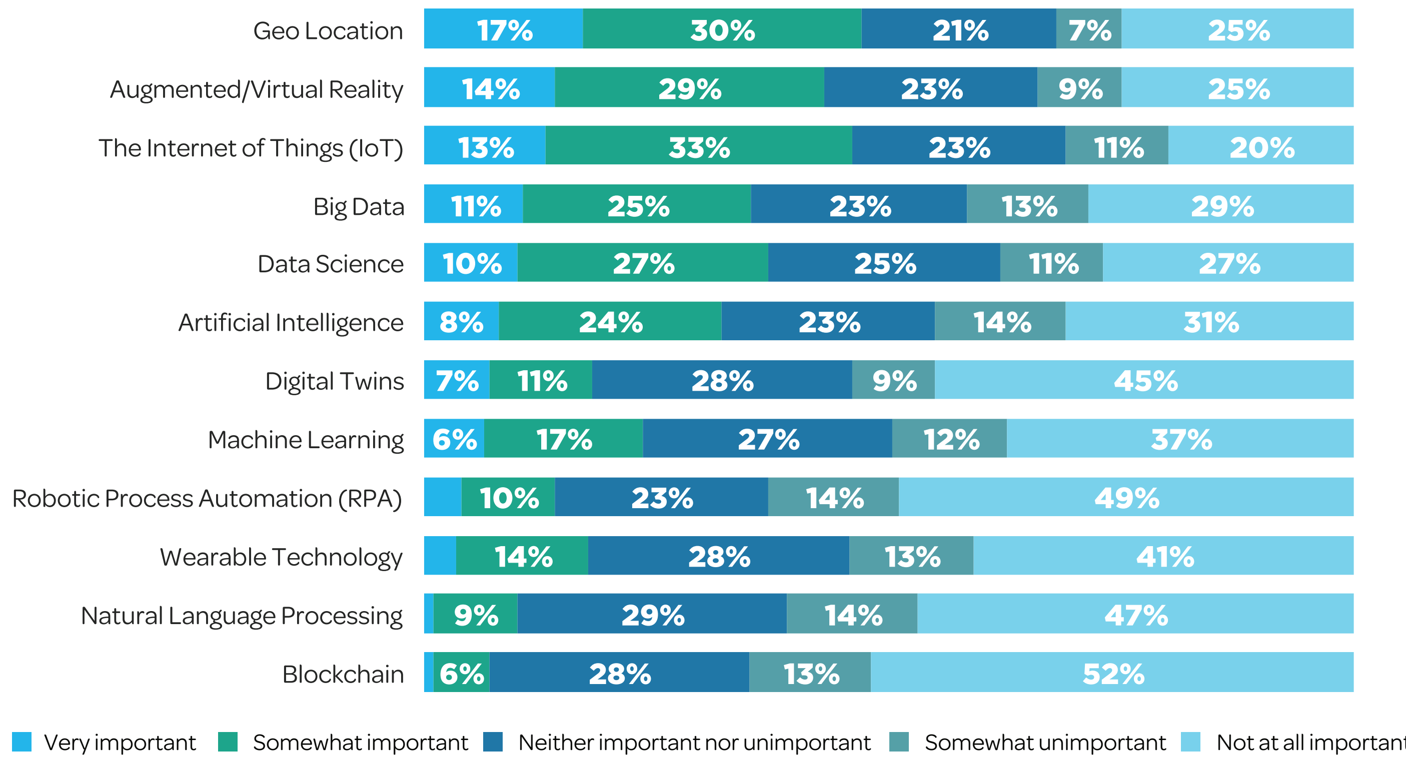
-Michele A. Russo, Managing Director of Research & Practice, AIA

Top Emerging Technology Trends

IoT remained of high importance, as A&E firms continue to demonstrate interest in new ways to leverage technology to manage and execute projects. This year, 46% of firms indicated IoT is very or somewhat important. And while interest is strong, how this interest translates to practical applications industry-wide remains to be seen.

Augmented/virtual reality retained its place among the top three most important technologies. As firms get more comfortable with and recognize the value of virtual reality in the design and construction process, this technology will become more ubiquitous.

Overall, emerging technologies were perceived as more important to the business. As firms continue to partner with existing clients, build relationships with new clients and hire young tech-savvy talent, expect to see greater use of emergent technologies in project management and execution.



Top Emerging Technology Challenges

While emerging technologies hold promise for all A&E firms in their efforts to compete and grow, lack of time to invest in learning, cost of technology and prioritizing which trends are most applicable are top challenges to implementation.

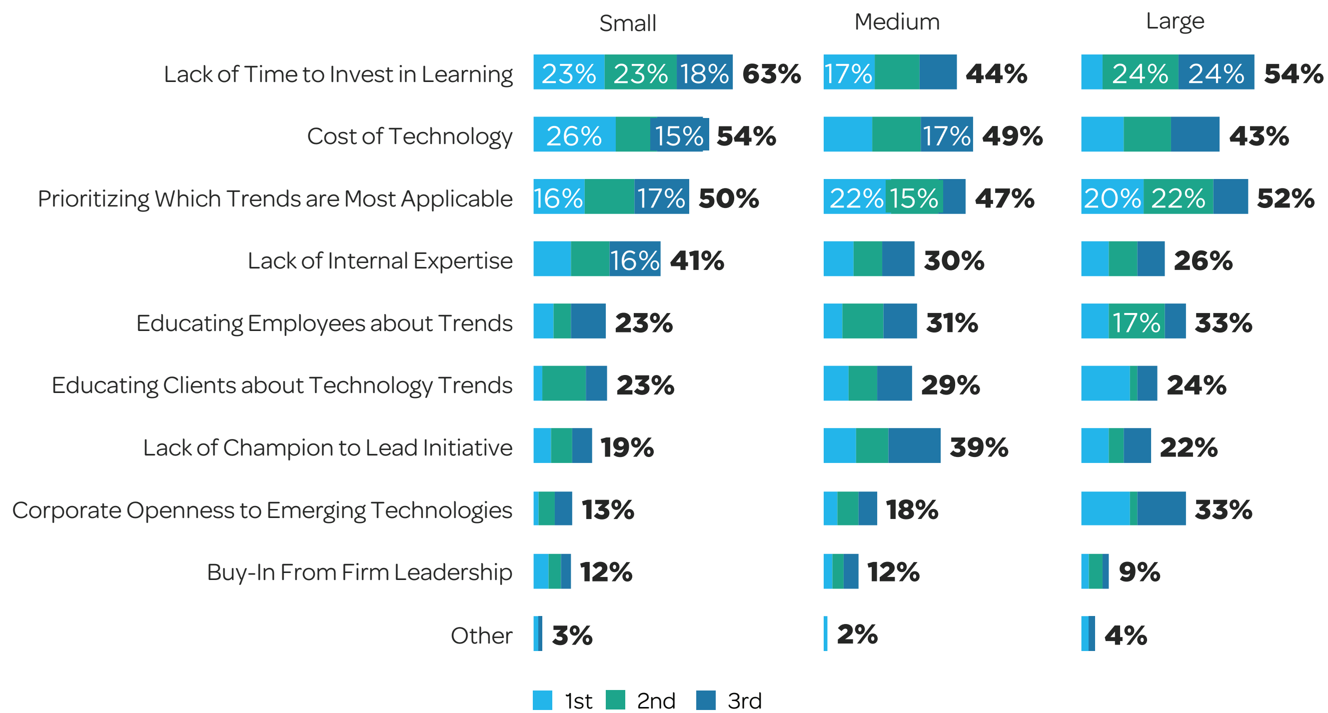
When asked to consider the top three emerging technology challenges their firm will face over the next three years, lack of time to invest in learning jumped to the number one spot at 56% versus 43% the previous year. Nearly two-thirds (63%) of small firms identified lack of time to invest in learning, compared with 44% of medium-sized firms and 54% of large firms.

Cost of technology at 51% moved down to the number two challenge. Small firms are more likely to see cost of technology as a barrier compared to medium-sized and large firms. Prioritizing which trends are most applicable to their firm was a comparatively equal challenge for companies of all sizes, though larger firms expressed slightly more concern.

Other notable barriers to technology adoption included lack of internal expertise among 41% of smaller firms, lack of a champion to lead tech initiatives among 39% of medium-sized firms and corporate openness to emerging technologies among 33% of large firms.

Firms can overcome these challenges in moderation by making greater use of existing software and leaning on staff who are experienced with the technology and software that increase operational efficiency.

Top Technology Trend Challenges by Company Size



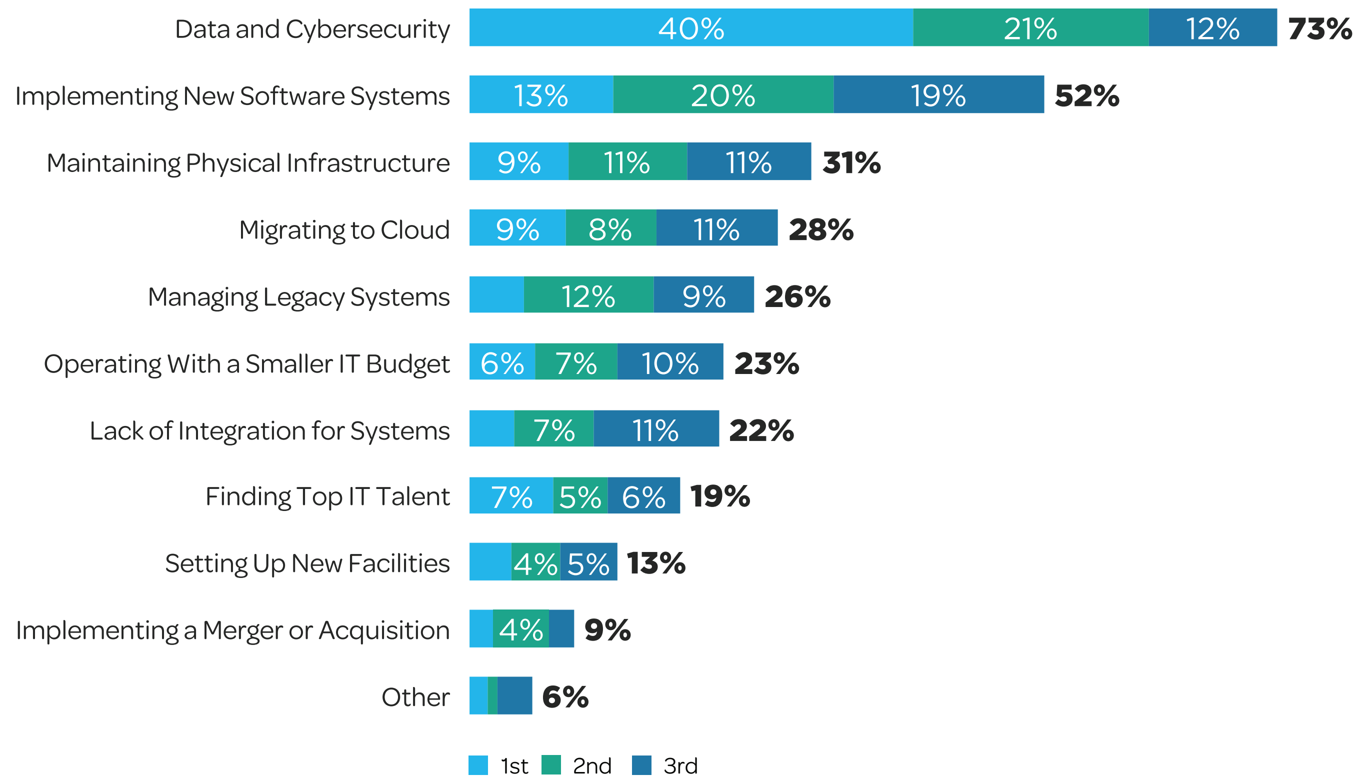
IT Operations Challenges

Cyberattacks are increasing worldwide, and A&E firms are not immune to the efforts of bad actors. Nearly three-quarters (73%) of A&E firms indicated that data and cybersecurity pose a challenge for their IT operations, with 40% saying it is the number one challenge they will face in the coming year.

Just over half of firms (52%) are concerned about their ability to implement new software systems, reflecting a growth in software solution utilization and a lack of internal expertise and resources to manage it.

Continued reliance on outdated technology filled the third to fifth biggest IT operational challenges slots. Nearly a third of firms (31%) foresee problems maintaining their physical infrastructure. Almost three in 10 (28%) firms are facing challenges migrating to the cloud, and a quarter of firms (26%) think they will struggle to manage legacy systems over the next 12 months.

In addition to deepening their internal bench of technology expertise, these firms can overcome these issues with the help of a technology solutions provider that understands the unique challenges facing A&E firms and will work with them to create solutions to meet their needs.

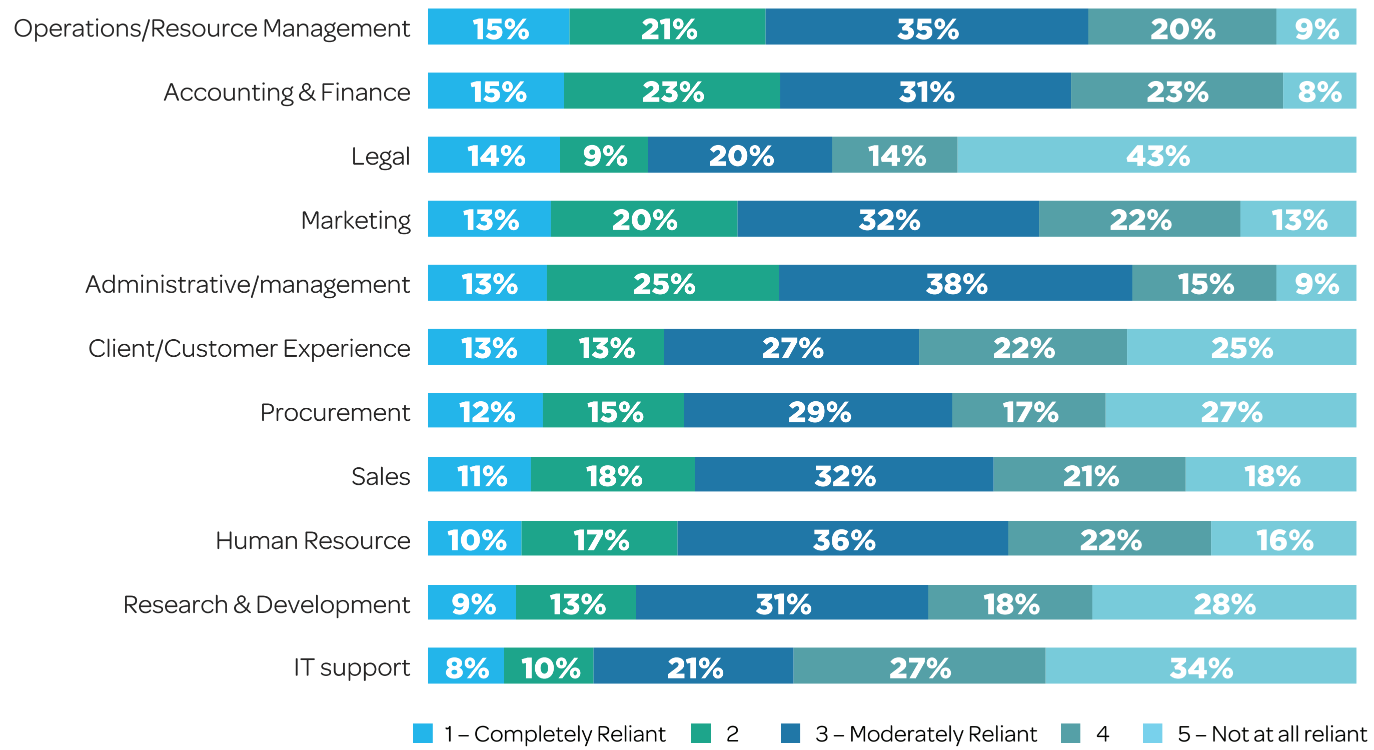


Reliance on Manual Data Entry

Given the robust availability of technology tools and solutions for all areas of the A&E business, it is somewhat surprising that firms continue to rely on manual data entry and spreadsheets throughout the firms.

More than two-thirds (69%) of firms are completely to moderately reliant on manual data entry for accounting and finance. Three quarters (76%) of firms are completely to moderately reliant on manual data entry for administrative and management functions. And seven in 10 firms (71%) are completely to moderately reliant on manual data entry for operations and resource management.

While some of these firms may lack the tools to digitally transform these functions, others may not be taking full advantage of the tools they have, perhaps due to insufficient internal resources and expertise. Taking advantage of the services and support available through technology solution providers can help shrink reliance on outmoded methods that add time and money to business processes.



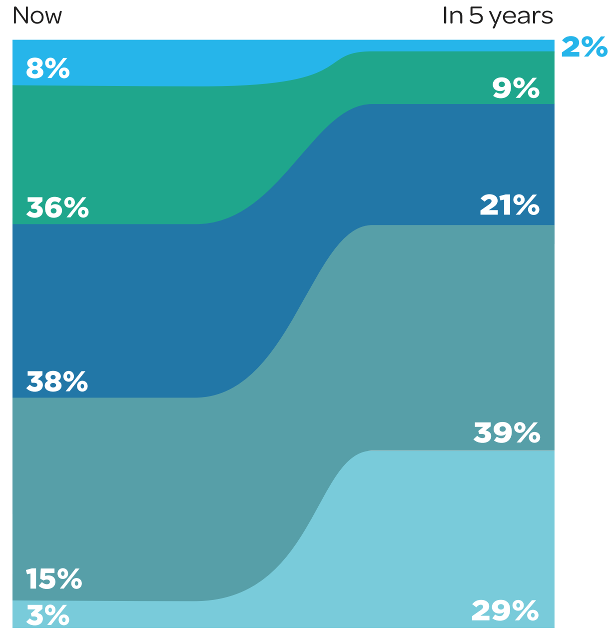
Digital Transformation Maturity Spectrum

A&E technology is evolving at an increasingly rapid pace and the firms surveyed this year find themselves at different stages of digital maturity.

A&E firms are less confident in their digital maturity than a year ago, which could be for a variety of reasons. They are slightly more likely to classify themselves as less mature (in the nascent or exploratory stages of digital maturity) today than last year and slightly less likely to classify themselves in the mature or advanced stages.

In addition, firms' five-year digital transformation projections are a bit less optimistic than they were last year, when 76% reported they would be in the advanced or mature stages in five years. This year, only 69% identified they will be at the advanced/mature stage in five years.

As the end game in technology is constantly changing and the bar is always rising, firms may understandably struggle to reach the mature or advanced stages of digital maturity and should focus on better alignment and integration of digital strategies across the business.



- **Nascent.** There's a disconnect between business and digital IT initiatives or a misalignment with company strategy
- **Exploratory.** There's a recognition of the need for digital transformation strategy but execution is at the lighthouse stage, on an ad-hoc project, which is neither predictable or scalable
- **Applied.** There's alignment between business and IT goals and momentum to adapt, but not dedicated focus on the full disruptive potential of digital initiatives
- **Mature.** Business and IT management are integrated and delivering digitally enabled product / service experiences on a continuous basis
- **Advanced.** Digital transformation is a primary strategic focus at the executive level and a culture of innovation is prevalent along with, increasing revenue, improving customer experience and growing operating margins

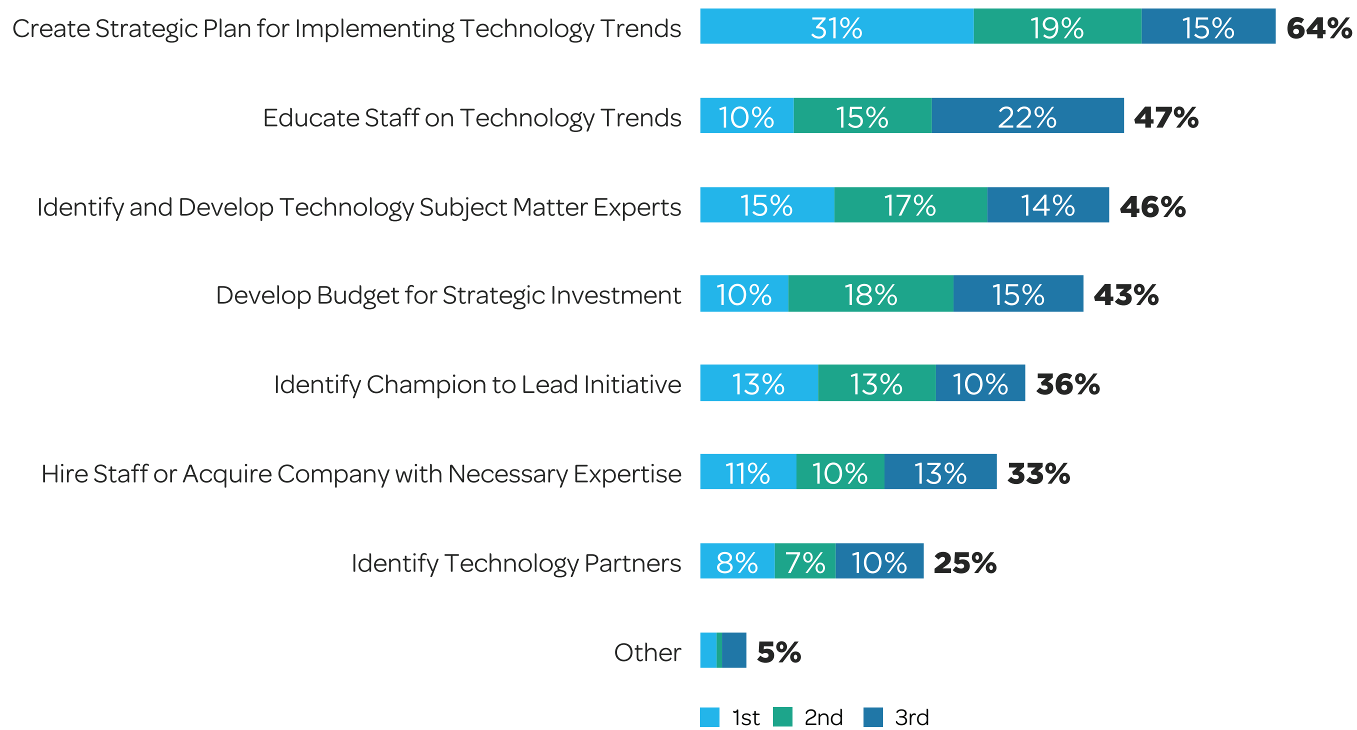
Top Emerging Technology Initiatives

A&E firms are approaching the integration of new technologies pragmatically. Nearly two-thirds (64%) are prioritizing the creation of strategic technology implementation plans. More medium-sized and large firms identified this as the key initiative in the next few years, with 36% and 43% respectively.

Firms face significant challenges, primarily in finding appropriate internal experts amid shrinking staff sizes. As we'll explore later, A&E employees are working harder than ever and those who traditionally filled strategic roles may be tasked with project delivery. Unlike small and medium-sized firms, large firms are more focused on identifying and developing internal technology subject matter expertise.

Small firms are significantly more likely than medium-sized firms and slightly more likely than large firms to acquire outside companies or hire new staff to address their technology challenges. Compared with small firms, medium-sized and large firms consider strategic investment in technology a higher priority.

While proper planning is always advised, firms should take caution to not get stuck in a planning rut. Starting with small steps like leveraging under-utilized technology tools already in place is more achievable and can provide quick, competitive advantages.



Technology Trends

A&E firms can harness the power of technology to improve business operations, enhance the client experience and grow profitably. By prioritizing the right investments instead of the newest technology, firms will be able to increase productivity throughout the business, be more competitive with their projects and recruit employees in a more strategic manner.

Adopting new technologies requires an upfront investment in time and money to save time and money in the future. A&E firms may struggle with the time aspect of this equation with project priorities, people challenges and lack of a dedicated champion.

By investing in the right technology tools at the right time and with the right internal champions and experts, firms can effectively increase productivity in functions ranging from business development, and project execution, to financial and human capital management.

Making staff more productive. Improving project efficiencies. Connecting processes. Delivering better client experiences. Attracting new, fresh talent. Technology can serve as both a foundation and catalyst to enable firms to be competitive, successful and profitable.

SECTION TWO

Financial Statements

After several challenging years, firms are seeing a relatively successful financial year, but saw decreases in several key metrics.

While firms demonstrated an ability to leverage their direct labor costs into increased revenues, the economic realities of those increased costs – along with growing employee attrition – impeded their ability to fully capitalize on available growth opportunities. While not at peak financial performance, firms fared well given recent staffing, project and client challenges.

12.8%

Operating Profit on Net Revenue

Margins were challenged this year as total labor costs rose, though firms were able to maintain their ability to effectively translate direct labor costs into revenue.

ADDRESSING TOP FINANCIAL CHALLENGES

1 **Finding and retaining qualified staff**. Firms reported more open positions and the cost of acquiring new talent has increased markedly.

2 **Managing growth**. Favorable market conditions are driving an 18% growth in estimated net revenues, requiring firms to bid strategically on projects as well as hire, retain and develop staff to manage future project growth.

3 **Increasing profitability**. Firms continue to refine strategies and leverage technology to reduce delivery costs, particularly on time-intensive and manual tasks. While revenue projections are up, staffing challenges, inflation and labor costs will impact margins and profitability.

Labor challenges hit firms particularly hard, evidenced by the growth in employee turnover, up almost two percentage points year-over-year. Recognizing the strategic importance of their workforces, firms have prioritized both acquisition and retention of quality staff. However, competitive balance has forced firms to increase salaries, affecting hiring, retention and training efforts.

Moving forward, it will be important for firms to look beyond straight salary increases and think creatively about other ways to attract and retain employees, such as offering part-time "retirement" to more-seasoned and highly valuable, at-risk resources or developing loyalty rewards and other incentives to delay near-term attrition.

With increased pipelines and backlog, topline growth opportunities are on the horizon. However, with the observed increase in collection periods this year, firms must be diligent in driving the timely completion of that work, ensure they bill promptly for those projects and collect on invoices quickly to increase profitability and reach their growth goals.

Firms must focus on ensuring the growth in their future workloads generates strong financial returns.

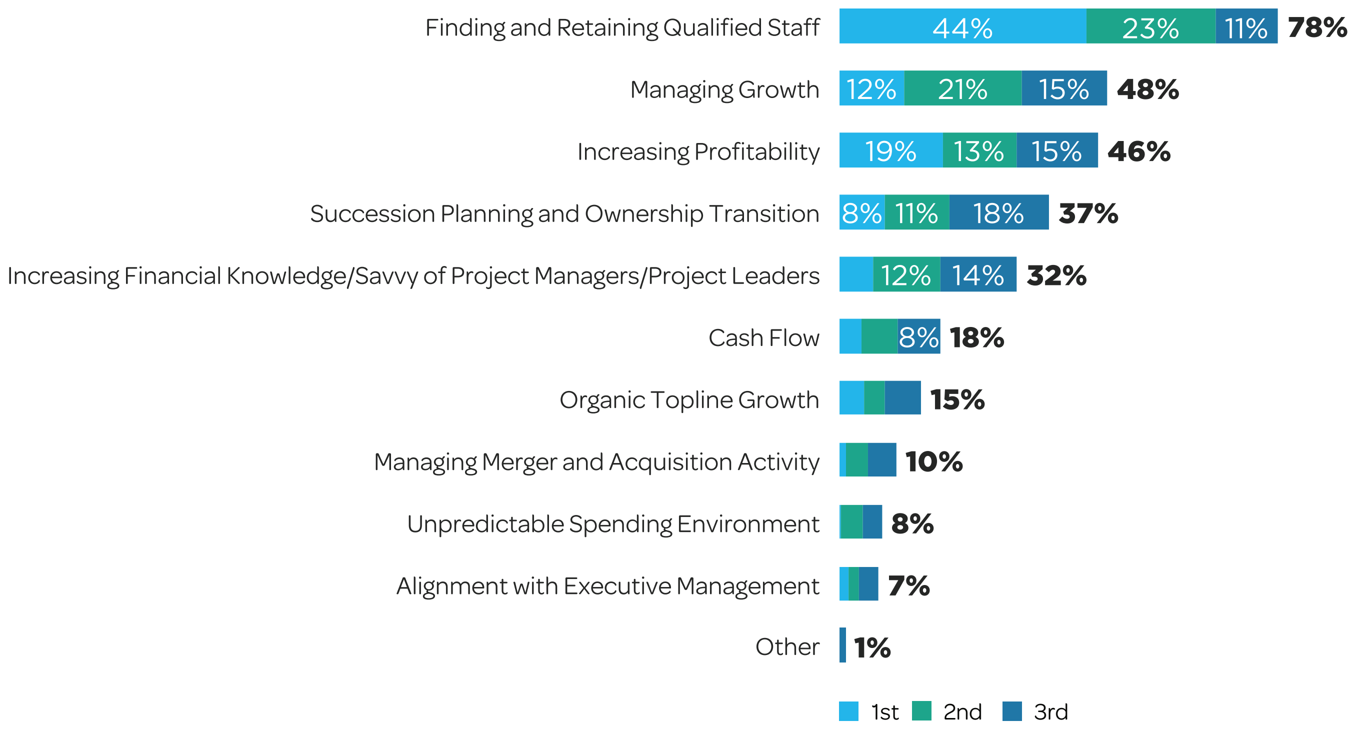
Top Financial Challenges

While firms' top financial challenges remain fairly consistent year-over-year, finding and retaining qualified staff jumped significantly, with nearly half (44%) of respondents indicating it as their top concern.

Managing growth inched up in importance by five percentage points to claim the second spot, as firms are balancing new projects, reduced staff and merger & acquisition activity.

Increasing profitability dropped in importance by seven percentage points but remained solidly in respondents' top three, indicating firms' awareness that increased project and revenue growth may be challenged by increased labor costs.

Continuing efforts to drive financial savviness among firms' project managers have been offset by higher priorities as this challenge declined in prominence by 10 percentage points compared to the previous year.



12.8%

-6.2%

Top Quarter

21.5%

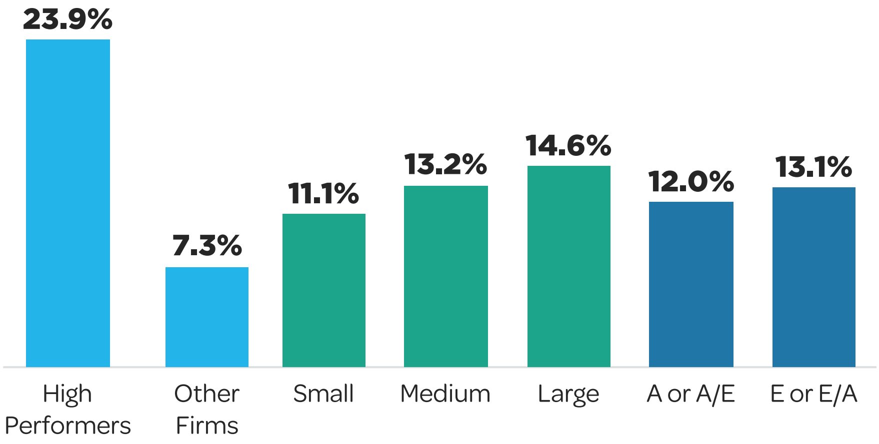
Bottom Quarter

2.6%

Divide pre-tax, pre-distribution profit by net revenue (total revenue minus consultants and other direct expenses).

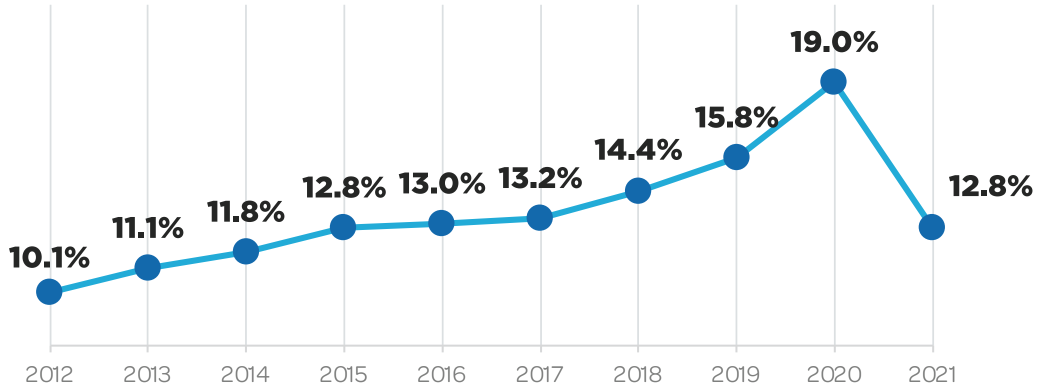
Operating Profit on Net Revenue

Overall, operating profit on net revenue declined just over six percentage points. Increased labor costs were observed across all segments, pressuring profit margins especially in small and medium-sized firms. Small firms saw the most significant change, decreasing from 27.3% the previous year to 11% this year. High performers continue to outpace all other firms by more than triple. While this is a criterion to be a high performer, the threshold operating profit is 15% to be included in this category and these firms are well above that level, on average.



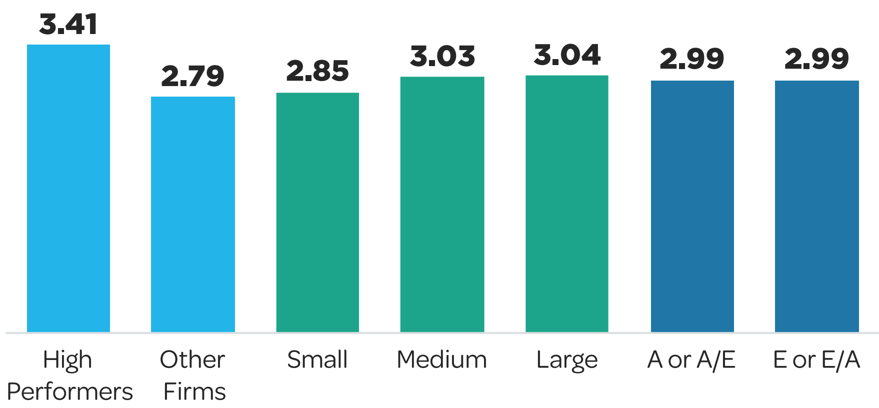
10-Year Trend

After years of upward trajectory, operating profit on net revenue dropped significantly to 12.8%, levels last seen in 2015, as firms experienced growing costs on a year-over-year basis. Increased leverage of direct labor and a continued focus on managing costs are important to push margins higher.



Net Labor Multiplier

Firms reported relatively minimal change, indicating their continued effectiveness at converting labor costs into revenue. Most segments reported slight gains, with non-high performing firms reporting an increase of one tenth of a percentage point year-over-year. In the same period, small firms reported a slight decline of 0.08 percentage points. As a key criterion for distinguishing a firm as "high performing," the median for high performers is well above the 3.0 minimum threshold.



2.99

+0.02

Top Quarter

3.36

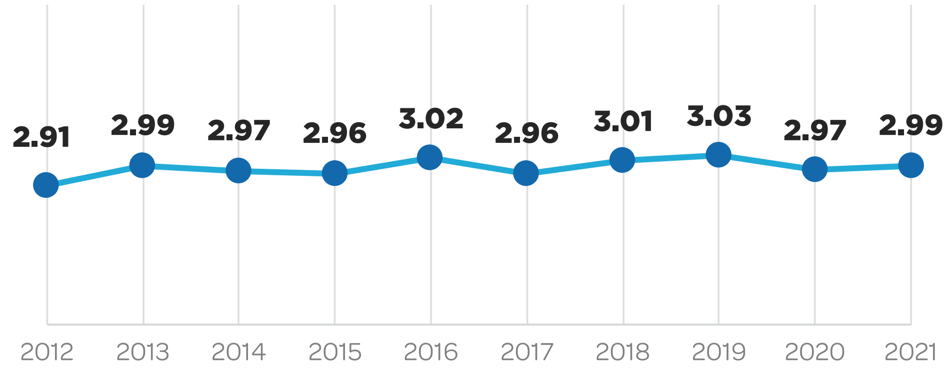
Bottom Quarter

2.54

Divide net revenue by direct labor (cost of labor charged to projects)

10-Year Trend

Across a broader timeline, net labor multiplier has demonstrated strong consistency, with this year's performance representing a slight uptick and 0.04 lower than the 10-year high.



58.5%

-2.3%

Top Quarter

68.1%

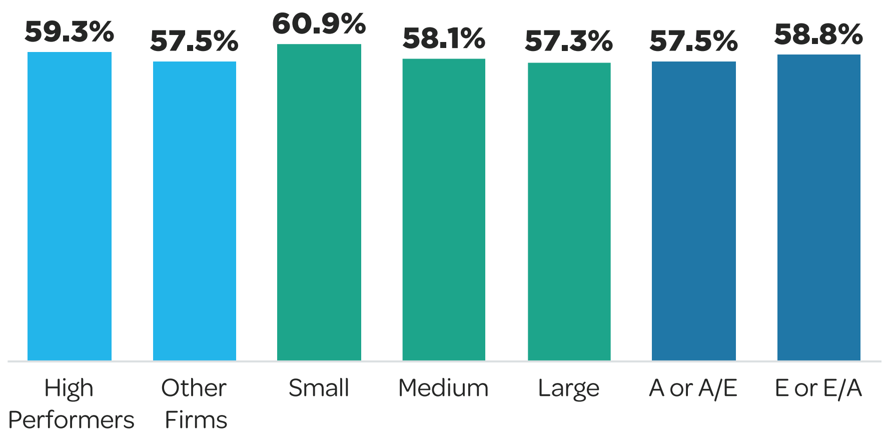
Bottom Quarter

54.1%

Divide cost of labor charged to projects by the total labor cost of the firm

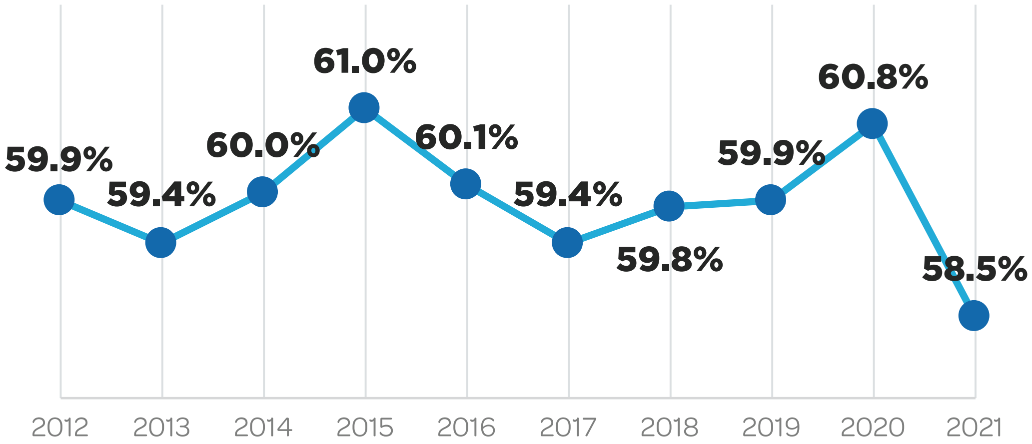
Utilization Rate

Utilization rate fell by more than two percentage points, as all business segments declined relative to year-ago results. General growth in non-project labor costs were observed, but small-sized businesses reported a larger decline of three percentage points. The higher turnover rate is a key factor here as well. Since utilization rate is calculated based on dollars – not hours – increased labor costs will naturally impact the overall rate.



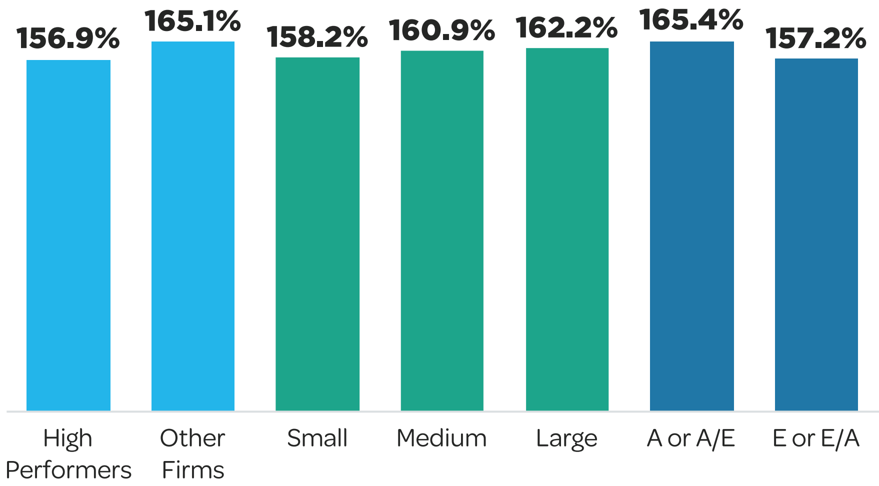
10-Year Trend

After a three-year uptick, utilization rates declined to 58.5%, representing a dip in performance greater than any observed in the last 10 years.



Overhead Rate

Overhead rate increased by 14 percentage points as total overhead costs increased significantly relative to total direct labor costs in all segments. Overhead rates for small firms increased 21.8 percentage points, "Other" firms jumped 20 percentage points and architecture firms increased 19.3 percentage points year-over-year. Labor shortages and turnover rates are impacting overhead rates, as well. As firms backfill positions, there could be longer ramp times and non-billable periods as projects are transitioned.



160.4%

+14

Top Quarter

185.4%

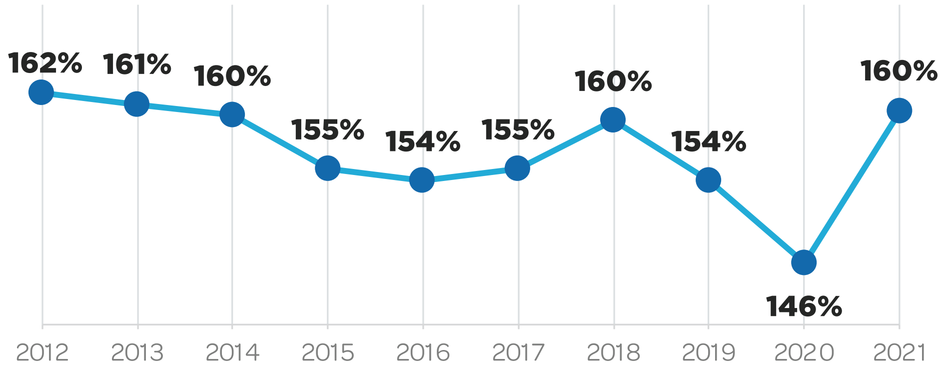
Bottom Quarter

135.3%

Divide total overhead (before distributions) by total direct labor expense

10-Year Trend

This year's increase in reported overhead rates reflects a return to 2018 levels after a two-year drop driven largely by pandemic-related restrictions on travel and in-person events.



1.74

-0.01

Top Quarter

1.97

Bottom Quarter

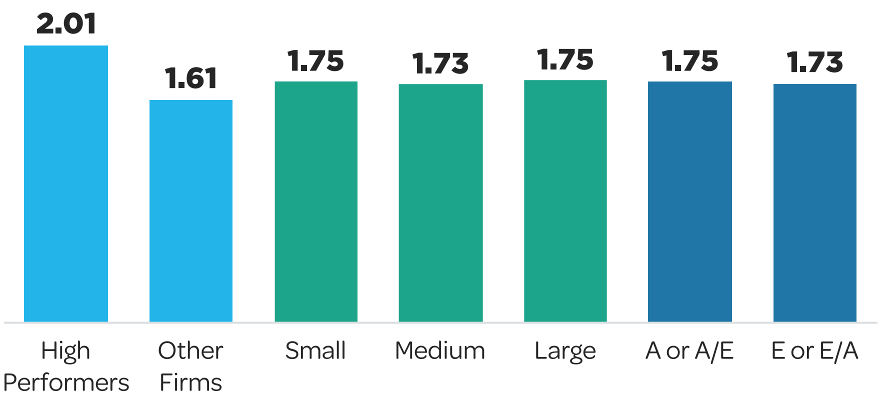
1.49

Divide net revenue by total labor or multiply utilization rate by net labor multiplier

Total Payroll Multiplier

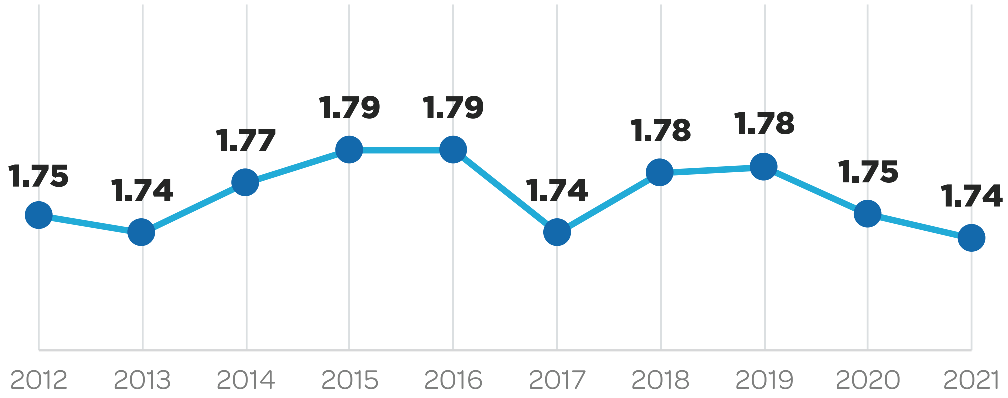
By directly relating labor costs to revenue generation, total payroll multiplier (also called revenue factor) collates movements between net labor multiplier and utilization rate to show how efficiently firms convert all labor-related expenses to revenue.

Similar to net labor multiplier, total payroll multiplier was fairly flat when compared to the previous year, declining slightly to 1.74. This indicates that while utilization rates dropped, firms' total labor cost conversion was largely maintained. High performers saw the largest decrease year-over-year, followed by medium-sized firms and engineering firms, compared to small and large-sized firms, which saw increases.



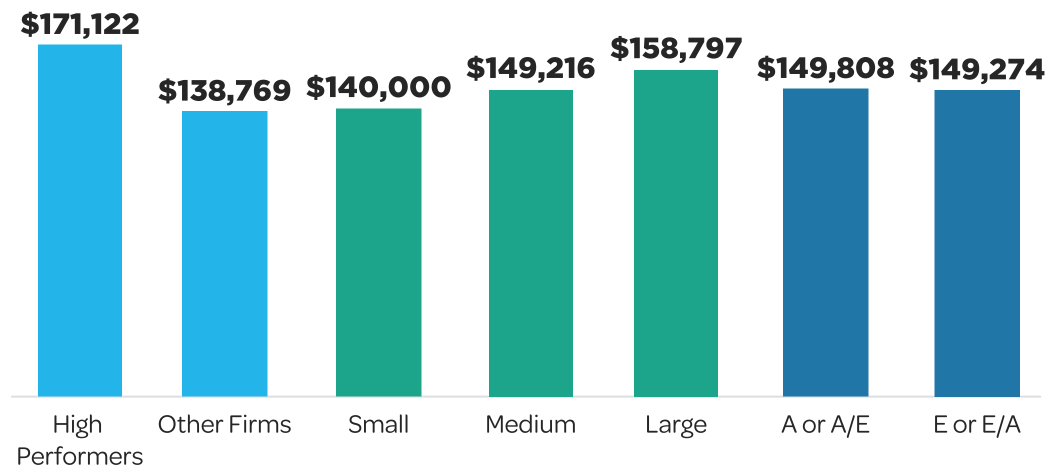
10-Year Trend

Looking at trends over the last decade, total payroll multiplier is also quite consistent, typically falling within a range of five hundredths. FY 2021 results dropped by 0.01, reflecting a result at the bottom of the observed range in the last 10 years.



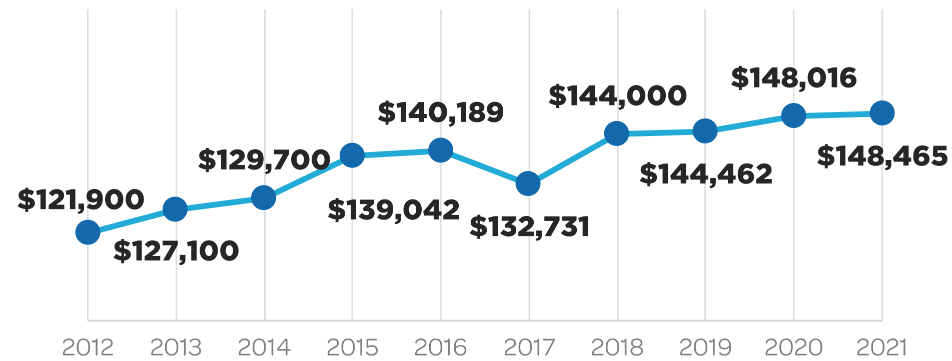
Net Revenue Per Employee

Net revenue per employee decreased slightly as labor force growth largely kept pace with revenue growth. Small firms saw the largest increase by far (+$6,416). Large firms saw a more modest increase (+$498) and medium-sized firms experienced a drop (-$4,883).



10-Year Trend

A slight decrease in net revenue per employee represents an adjustment to an otherwise rising trend the last several years. It is important to consider the downstream impacts of this result, as fewer employees may be delivering more project work as a result of staffing challenges, which could eventually lead to more attrition.



$148,465

-$466

Top Quarter

$173,710

Bottom Quarter

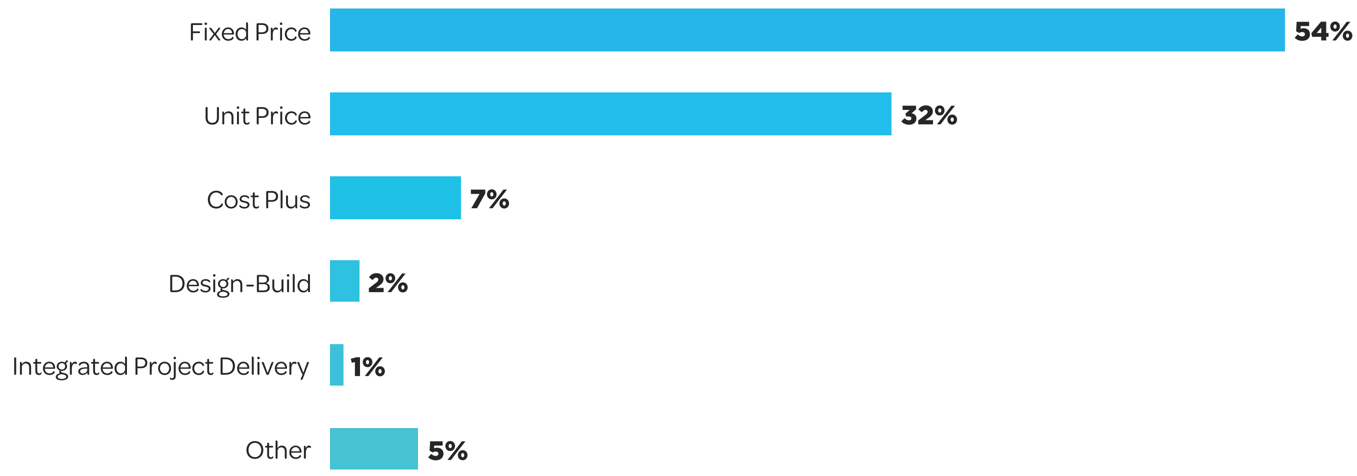
$114,626

Divide net revenue by average total staff during year, including principals

Project Contract Types

The overall mix of contract types in which the firm is the primary contract holder was fairly steady year-over-year, indicating no material changes in contract mix.

Fixed-price contracts – typically the most profitable for firms – remain the most common by far. However, that vehicle type represented 54% of reported primary contracts, a three percentage point drop from the previous year. Unit price contracts – based on time and materials, hourly rates, per diem and salary multiples – are the second most common contract type, with cost-plus, design-build and integrated project delivery trailing well behind.



8.75

+0.85

Top Quarter

11.91

Bottom Quarter

4.76

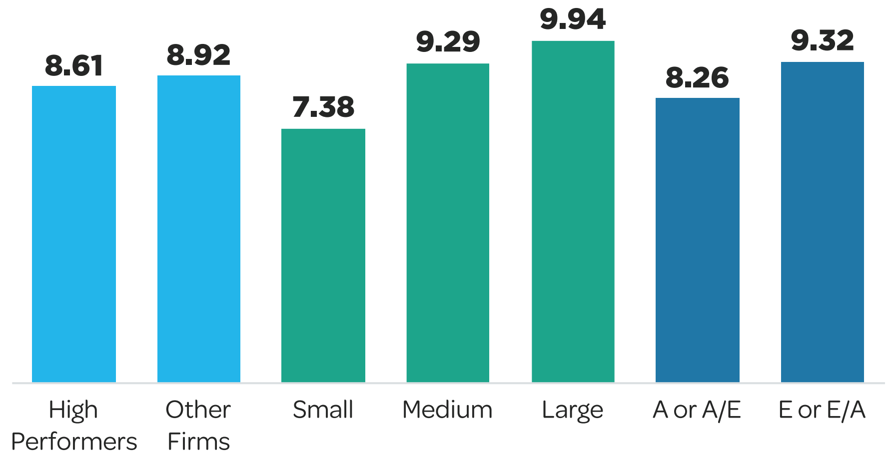
Divide backlog dollars by total revenue, then multiply by 12

Backlog in Months

Greater workforce attrition is potentially impacting firms' project backlogs directly, but firms could also be seeing a higher volume of project awards based on the total number of proposals submitted this year. Overall, firms saw an increase by more than three weeks year-over-year.

Backlog dollars increased at a faster rate than total revenue as project backlogs increased across all firm segments this year.

Businesses of all sizes saw increases, with large firms indicating backlog growth of more than six weeks, while small and medium-sized businesses saw their backlogs grow by nearly a month.



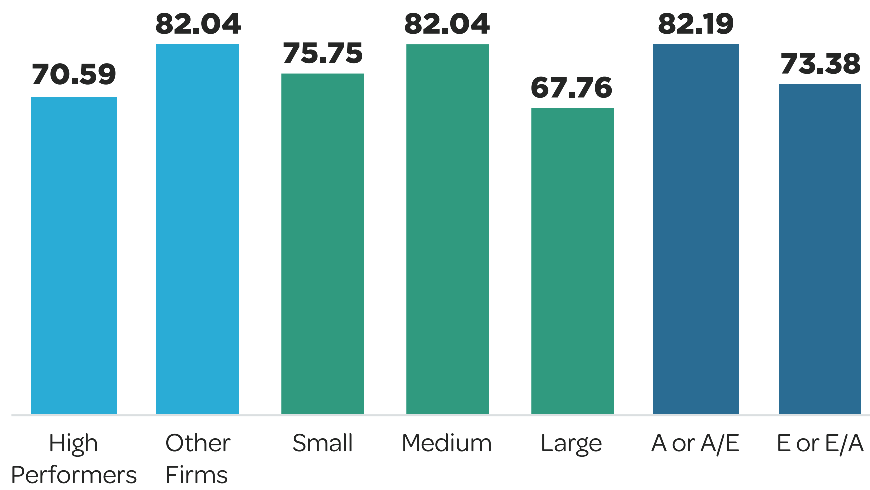
"Firms are riding on record backlog levels now but, the bigger concern is risk of recession in 2023-2024 so leaders need to be cognizant of that."

-Steve Gido, CFA, Principal, Rusk O'Brien Gido + Partners

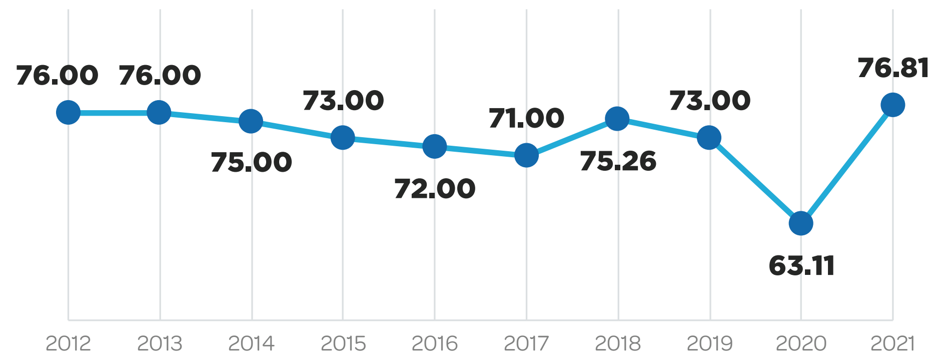
Average Collection Period in Days

Average collection periods have increased by nearly two weeks as project backlogs have grown due to clients' tighter management of their cash flow. Firms are now waiting an average of nearly 77 days to collect on accounts receivable, with small firms experiencing an increase of 31 days relative to the previous year.

The year-over-year increase in collection periods brings results from this year more in line with observed levels in previous years. Firms should look back on what was done differently in the previous year when the average collection period was much lower to see where efficiencies can be gained to bring this number back in line with its historical trend.



Average Collection Period: Ten-Year Trend



76.81

+13.7

Top Quarter

93.43

Bottom Quarter

56.46

Divide accounts receivable by annual total revenue, then multiply by 365

$7,394

-$28

Top Quarter

$12,281

Bottom Quarter

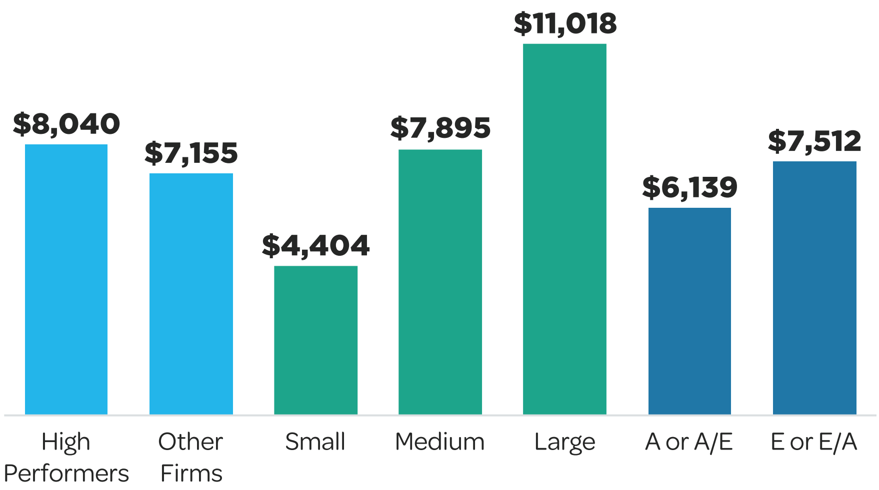
$3,569

Total fixed assets minus goodwill and depreciation, then divided by current number of employees

Net Fixed Assets Per Employee

Net fixed assets per employee declined slightly, as new asset investment slowed relative to amortization of existing assets and workforce declines this year.

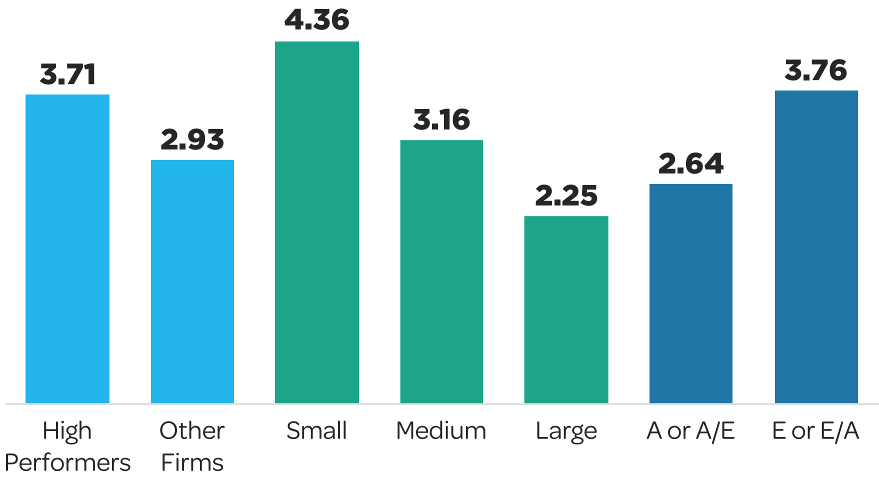
Most prominent changes versus year-ago results were observed in engineering (-$765), small (-$708) and medium-sized (-$382) firms. Large firms saw the biggest increase year-over-year (+$638).



Current Ratio

Respondents indicated a robust level of short-term liquidity, with current assets over three times current liability levels as firms managed their cash more tightly, pushing payments out further as collection periods rose correspondingly.

From a growth perspective, small businesses (+1.65x) and high performers (+0.8x) recognized significant liquidity improvements versus last year.



3.34

-0.59

Top Quarter

5.23

Bottom Quarter

2.10

Divide current assets (cash and near-cash assets) by current liabilities (due in one year or less)

0.61

-0.24

Top Quarter

1.04

Bottom Quarter

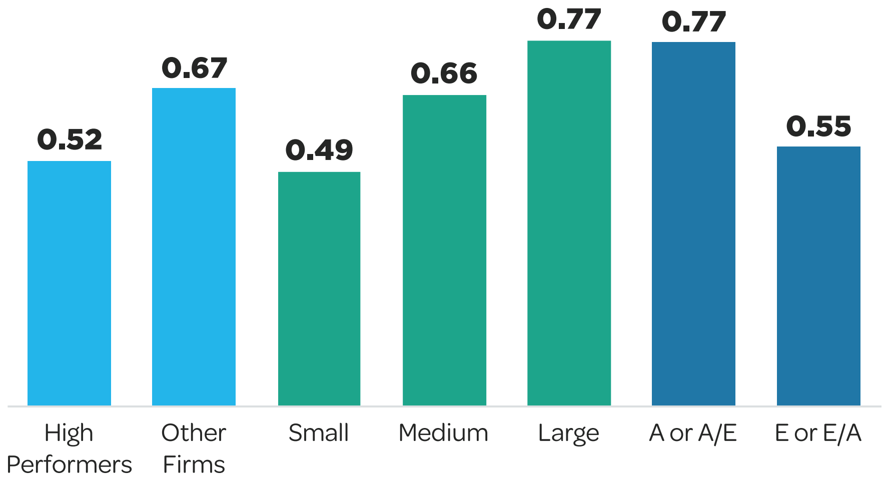
0.32

Divide total liabilities by stockholders' equity

Debt to Equity Ratio

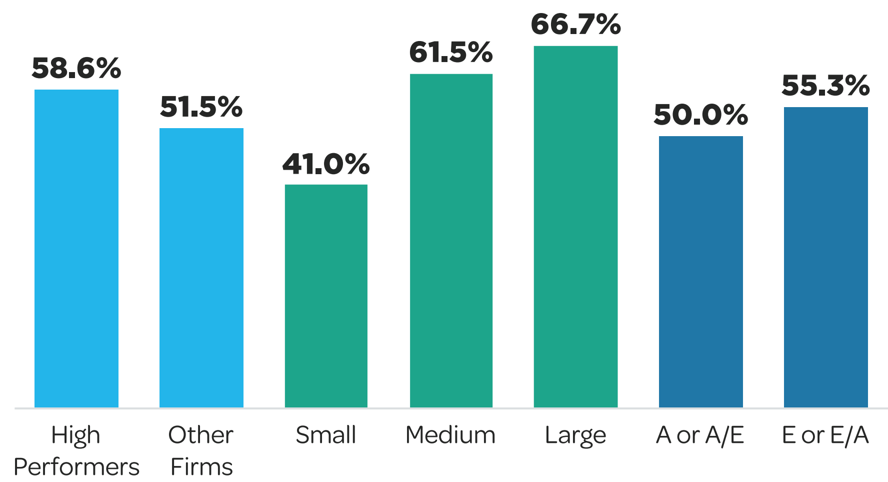
Debt to equity ratio is a key metric when evaluating the health of a firm's balance sheet, as it considers the amount of debt being carried to finance a business's assets relative to the equity held by the business's shareholders.

This year, firms reported their total liabilities declined to 61% of their shareholders' equity, down from 85% a year ago. Consistent with last year, larger firms continue to carry greater levels of debt to equity relative to smaller firms. Nonetheless, debt loads compared to shareholder equity declined across all tracked segments compared to last year.



Firms with a Completed Firm Valuation

Nearly across the board, firms reported a significant increase in completed firm valuations, up more than 15 percentage points. Small and medium-sized firms saw the biggest increase, with a nearly 15 percentage point increase for each segment. "Other" firms reported a drop in valuation completion, down roughly five percentage points on the year.

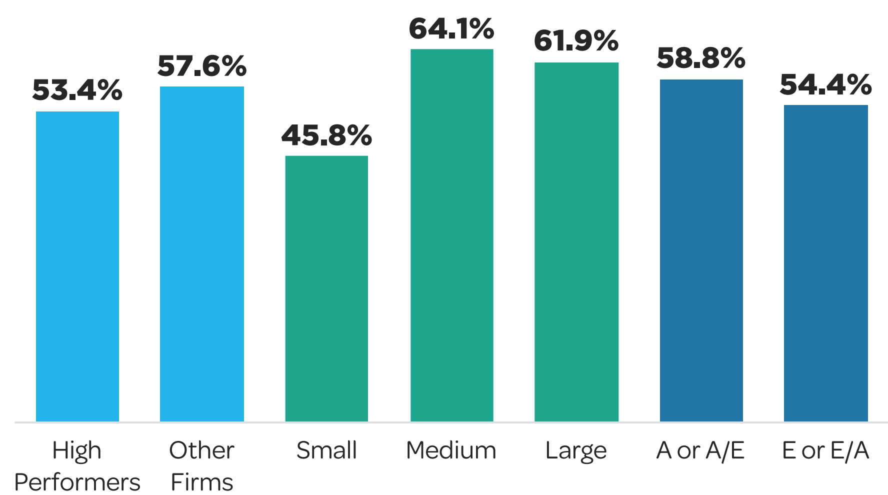


52.7%

+15.3

Firms that Plan to Complete a Valuation

A majority of firms without a recent firm valuation plan to complete one in the next 12 months, an intent which is reflected in businesses of all sizes. That said, plans to complete a firm valuation are most-prominent in firms likely to be the target of an acquisition by a larger peer, as a new valuation is a stated focus for both small (up 26.2 percentage points) and medium-sized (up 29.9 percentage points) firms. Record-breaking M&A activity in the industry is also creating more momentum behind valuation activity and M&A activity growth is not expected to slow down in the foreseeable future.



55.5%

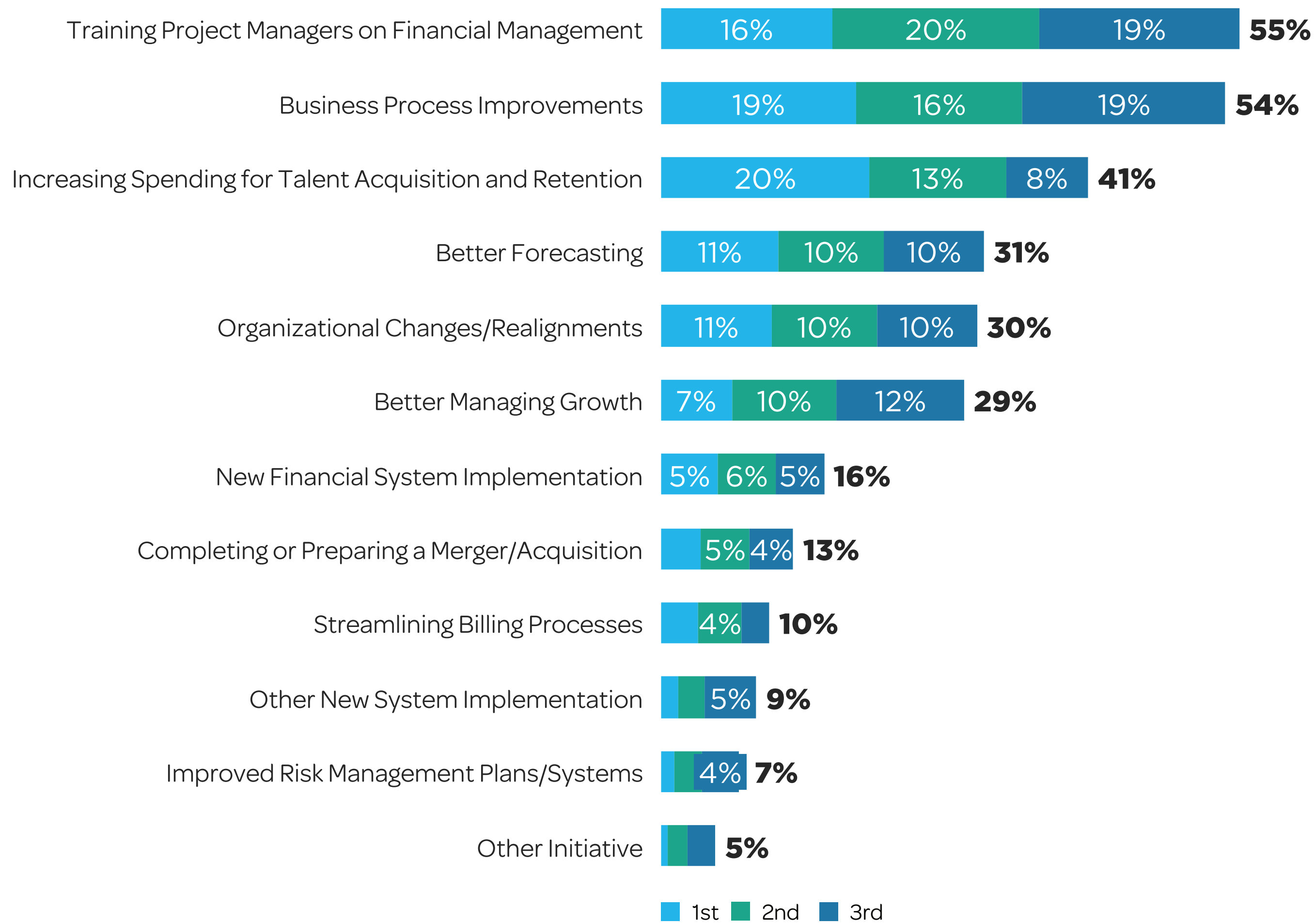
+27.7

Top Financial Initiatives

Firms have a number of strategies at their disposal to address the past year's financial challenges. Training project managers to be more financially savvy and improving business processes remained firmly at the top of the collective "to-do" list, as slightly more than half of firms prioritized these initiatives.

Increased spending for talent acquisition and retention jumped significantly in the last year, representing the greatest volume of top rankings (20%) of all initiatives; jumping 20 percentage points in overall importance over last year as 41% of firms indicate a specific focus on spending to address talent acquisition and retention-related initiatives.

Conversely, firms diminished their near-term focus and reduced emphasis on a handful of potential initiatives, including better forecasting (down seven percentage points), better growth management (down four percentage points) and organizational changes and realignment (down two percentage points).



Financial Services

Firms emerged from a challenging year with relatively stable financial performance, but more positive financial forecasts than the previous year. While topline growth opportunities are available, the growing costs of labor acquisition and retention will push firms to be creative in capturing and translating those opportunities into meaningful bottom-line growth.

Along with a stronger focus on spending strategically to address near-term labor challenges, firms saw improved financial performance on several key metrics – including topline revenue growth – while some metrics decreased only slightly allowing firms to show an overall strong financial performance for the year.

While total labor costs have risen, largely as the result of increased wages driven by multiple forces including inflation and workforce mobility, new project opportunities – in the form of strong pipelines and growing backlogs – signal firms' belief in the strength of their go-forward revenue growth projections.

A tremendous opportunity awaits A&E firms that are able to effectively position themselves as the workplace of choice for skilled and experienced employees. Identifying creative ways to lower regrettable attrition – loyalty rewards for long-term contributors, extending part-time opportunities to valuable retirement-eligible employees and driving higher engagement rates – will provide a valuable foothold to unlocking future revenue growth.

Business Development

A market-rich environment will require firms to not only strategically pursue the right projects, but also grow and develop staff for delivery.

Business optimism among A&E firms soared, driven by favorable conditions in numerous markets including public sectors like water resources, transportation and energy/power.

Estimated revenues for 2022 are expected to grow by nearly 18%. Firms are also seeing a significant increase in the number of proposals submitted, a 30% increase year-over-year, and an average win rate nearing 50%.

17.6%

Net Revenue Growth Forecast

Looking forward, A&E firms predict a 17.6% growth in net revenue – the highest forecast in a decade.

ADDRESSING TOP BUSINESS DEVELOPMENT CHALLENGES

1 **Time to nurture client relationships**. Expected favorable market conditions will yield new opportunities but make it more challenging for firms to keep up with clients. Increasing staff levels, upskilling business development (BD) talent and using technology to streamline the BD process will free up time to nurture client relationships more strategically.

2 **Increased competition**. With increased industry M&A activity, firms are becoming larger and better equipped to meet clients' needs. To stay competitive, firms must hone branding and differentiation across client-specific marketing, thought leadership and social marketing channels to better distinguish themselves in the marketplace.

3 **Identifying prospects**. The positive industry outlook for 2022 will require firms to be strategic in pursuits that best align with the company's strengths and talent. It is important for firms to be more selective and develop strategic pursuit plans.

A&E business is booming. Clients are spending. Project volumes are growing. The pace to respond to Request for Proposals (RFPs) is accelerating. Increased M&A activity has intensified competition for jobs. These conditions make developing a well-informed strategy essential for pursuing the right opportunities and subsequently ensuring firms have the right teams to deliver the best projects.

Staffing challenges are having a direct impact on business development, with employee turnover up and regrettable attrition on the rise. Not only do firms lack adequate staff to conduct business development activities, they also are struggling to have the most qualified teams for proposals to win and deliver the projects.

With firms winning about half of the projects they bid on, they cannot afford to run lean from a staffing standpoint. Use of a go/no go process, which takes staffing levels and other business insights into account, can help firms balance which projects are worth pursuing and which ones are better for another firm.

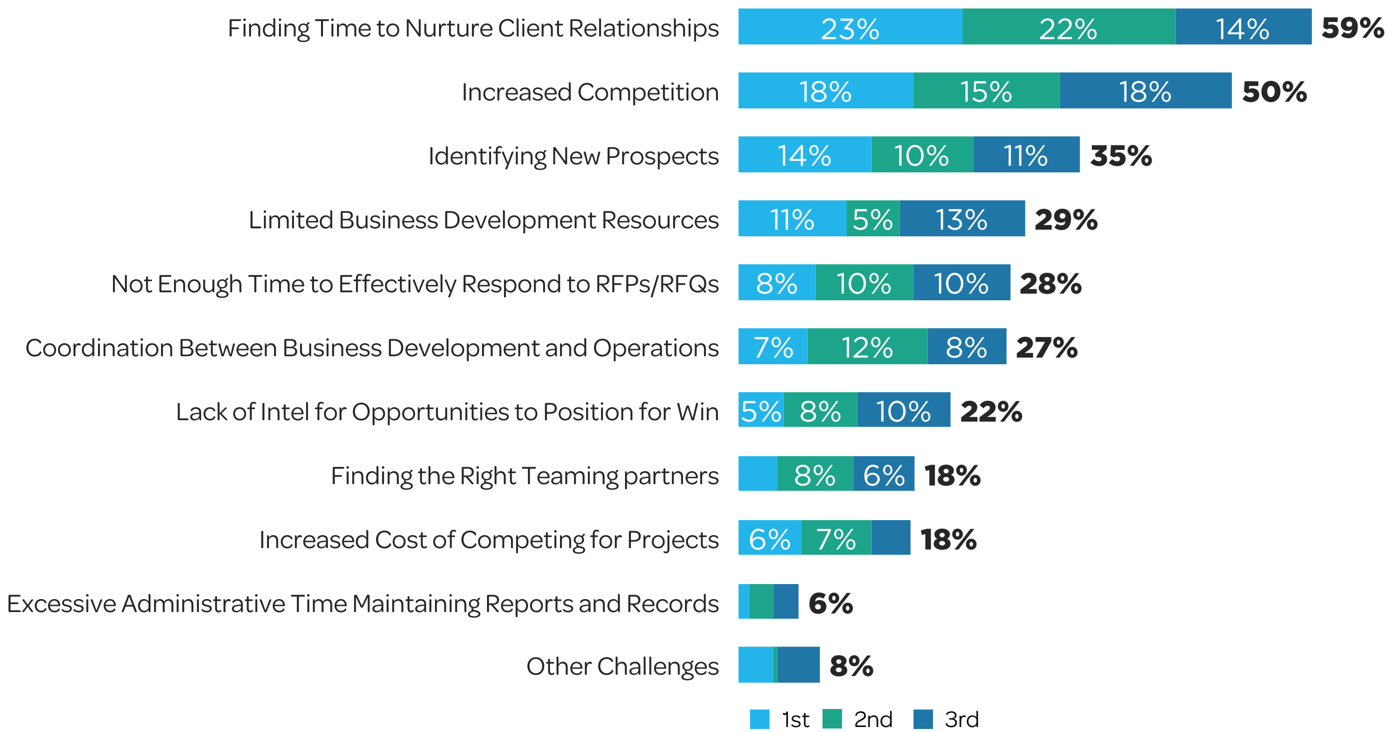
Surprisingly, more than 30% of firms still use only spreadsheets or no technology at all to manage their business development efforts. Firms with dedicated business development technology will be more successful in capitalizing on the positive market by reducing burdens on the business development function and freeing up staff to pursue the growth firms expect.

The A&E market forecast is strong. Firms will need to be strategic about how best to capitalize on the opportunity.

Top Business Development Challenges

The top three business development challenges remained constant but did fall in importance with fewer firms ranking them as their biggest challenges. The effects of the positive marketplace can be seen with increased competition and identifying new prospects diminishing as challenges (falling seven and 10 percentage points respectively) and not having enough time to effectively respond to RFPs/RFQs rising nine points year-over-year.

The challenge of more prospects, more clients and more projects to pursue can also be seen in limited business development resources rising four percentage points as a first-ranked challenge and coordination between business development and operations increasing two percentage points overall. Well over half (59%) of firms surveyed continued to struggle with finding the time to nurture client relationships, with 23% of firms identifying this as their top challenge.



"Many firms cannot keep up with the demands of opportunities for current projects or the opportunities for growth."

-Michael Geary, CAE – CEO of SMPS

17.6%

+13.4

Top Quarter

36.7%

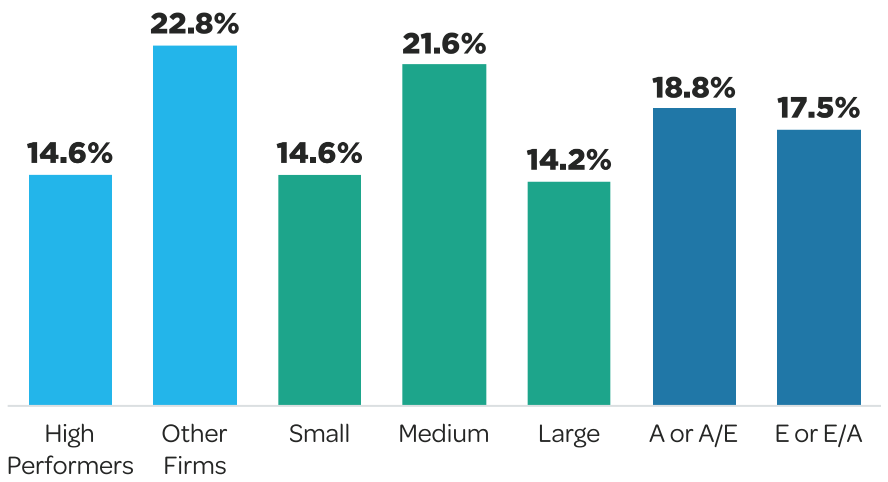
Bottom Quarter

5.0%

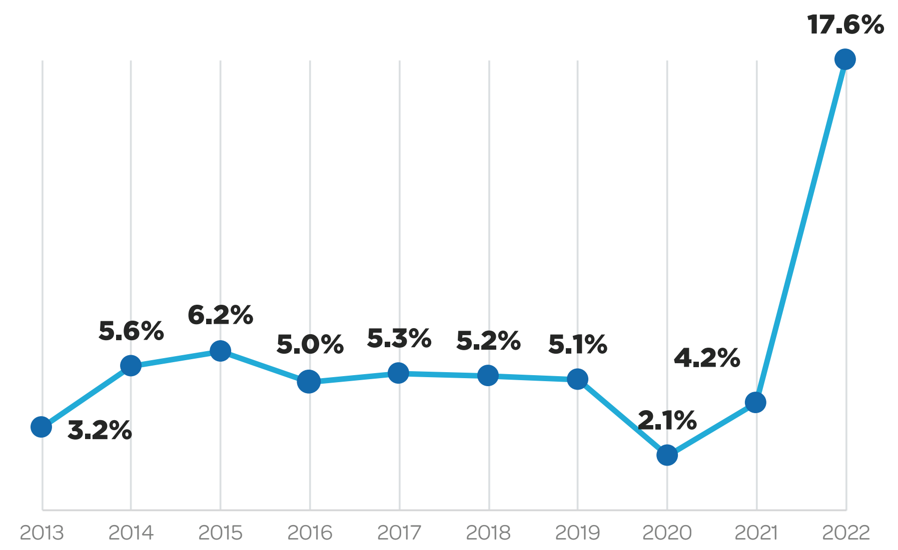
Net Revenue Growth Forecast

Firms are very optimistic about the coming year, forecasting net revenue to grow by 17.6%, an increase of more than 13 percentage points year-over-year. Medium-sized and architectural firms were especially bullish, forecasting 21.6% and 18.8% increases in growth, respectively. For their part, small firms forecasted a 14.6% growth after the previous year's significant negative forecast.

The growth forecast this year is the highest in 10 years and greatly surpasses previous estimates in the two to six percent range.



Net Revenue Growth Forecast: 10-Year Trend



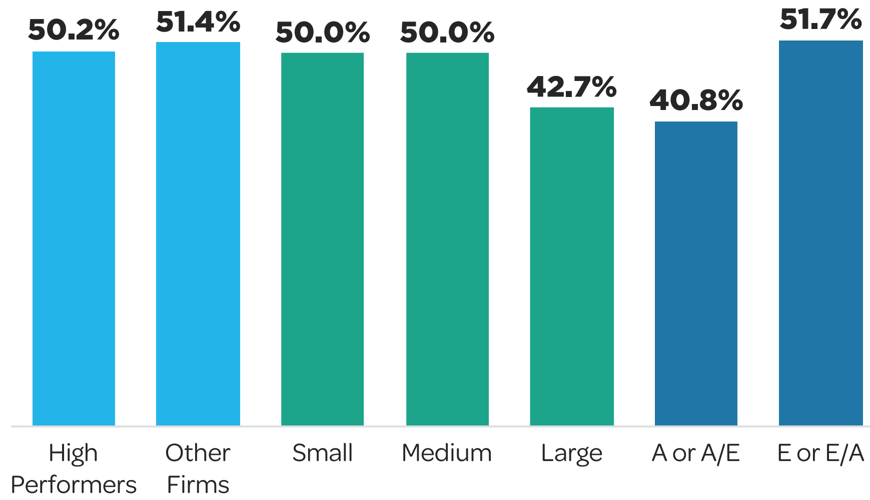
Win Rate

The overall win rate increased over four percentage points to 49.2% from 44.7%. Win rates were up across all segments with small firms experiencing the greatest growth, up nearly six points to 50%.

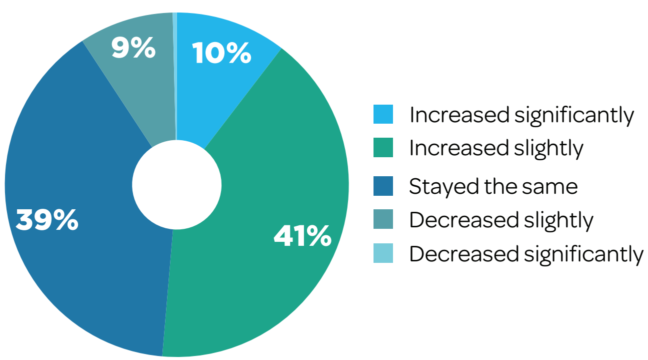
Both architecture and engineering firms experienced growth, up nearly two and four percentage points respectively. High performers also saw an increase of three points year-over-year.

The number of firms reporting that their win rate grew or stayed the same increased 14 percentage points to 90%. Firms reporting win rate growth increased eight points year-over-year. Overall, 10% of firms reported significant increases, while 41% reported a slight increase in win rates.

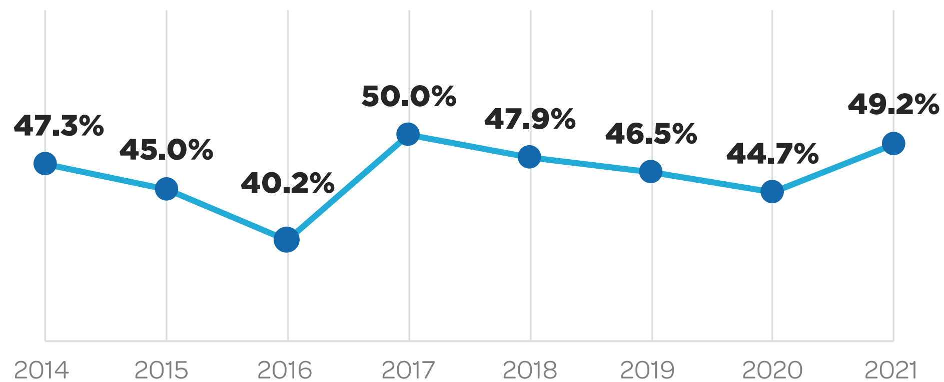
The average win rate for firms that track their win rate is the second highest in the last decade, approaching the high of 50% achieved in 2017.



Win Rate Change



Win Rate: Eight-Year Trend Line



49.2%

+4.5

Top Quarter

66.4%

Bottom Quarter

35.5%

Total number of competitive proposals awarded divided by total number of competitive proposals submitted

48.5%

+2.7

Top Quarter

66.6%

Bottom Quarter

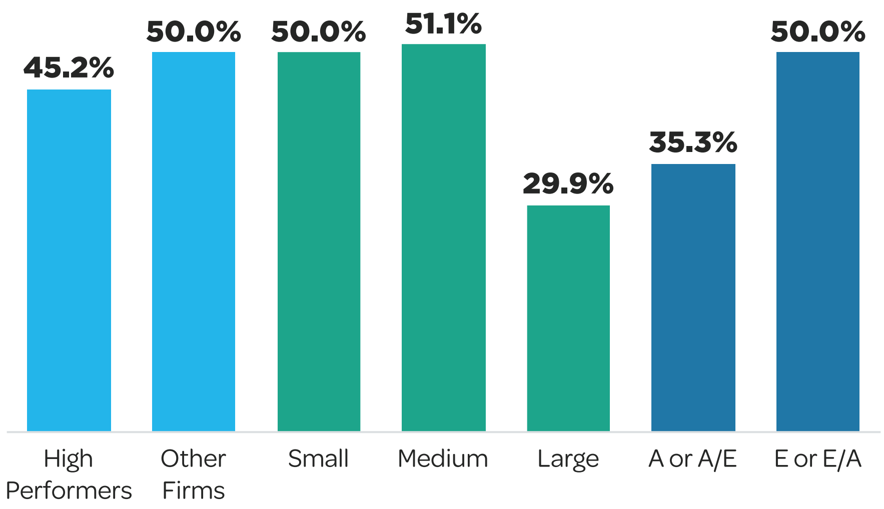
25.0%

Total dollar value of competitive proposals awarded divided by total dollar value of competitive proposals submitted

Capture Rate

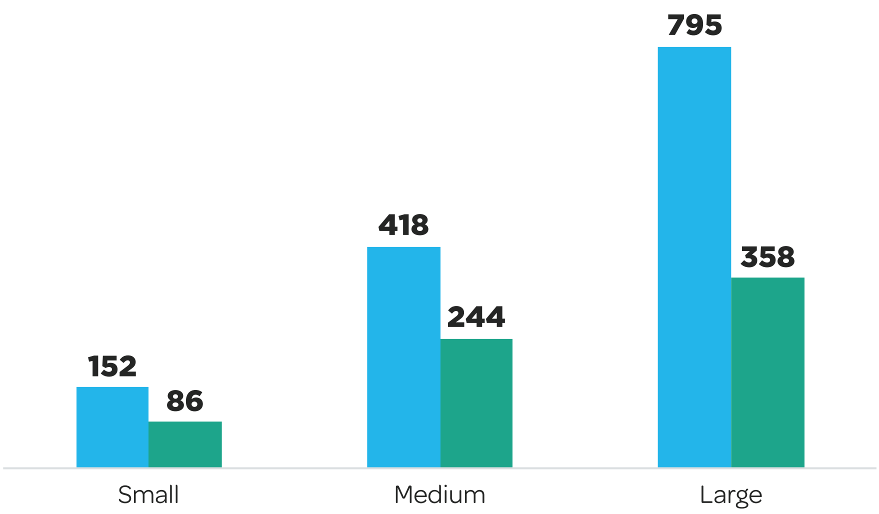
While win rate measures the number of proposals submitted to number of proposals awarded, capture rate measures the total dollar value of the proposals submitted compared to those awarded.

Overall capture rate grew nearly three percentage points, with medium-sized firms experiencing the greatest growth, up eight points, offsetting large firm declines, which were down more than 17 points. Engineering firms' capture rate grew from 44.9% to 50.0%, while architecture firms decreased to 35.3% from 40.6% percent. The difference may reflect the type of projects that engineering firms are pursuing, such as larger infrastructure projects, or increased competition among architecture practices.



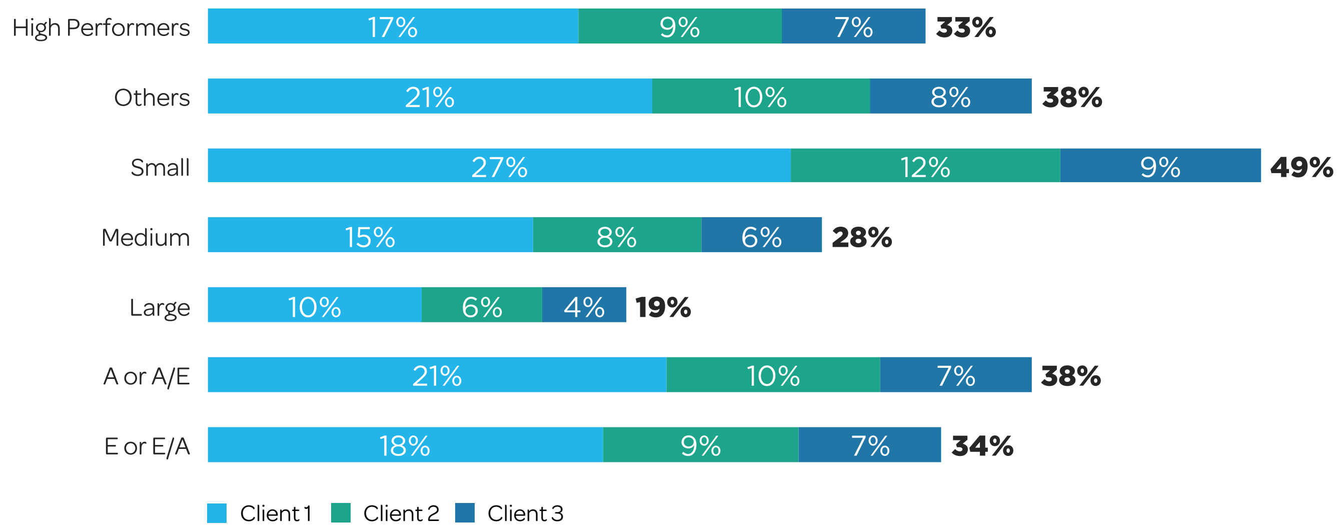
Proposal Volume

While overall win rates increased only slightly, firms saw a tremendous uptick in the number of proposals submitted compared to just one year before, putting additional pressure and time constraints on business development and proposal teams. On average, firms submitted 30% more competitive proposals than the previous year, and were awarded 33% more projects. The biggest leap in submission and win rates was seen with medium-sized firms, where the number of proposals submitted increased by 25% and the number of proposals awarded increased by 38%.



Revenue from Top Three Clients

A&E firms became more diversified, reducing their dependence on opportunities and revenue from their top three clients and therefore reducing overall risk. Revenue from top three clients declined two percentage points overall, from 37% percent to 35% percent. High performers experienced the biggest decline, falling nine points to 27%. Small firms saw a modest bump of two points to 49%.



35%

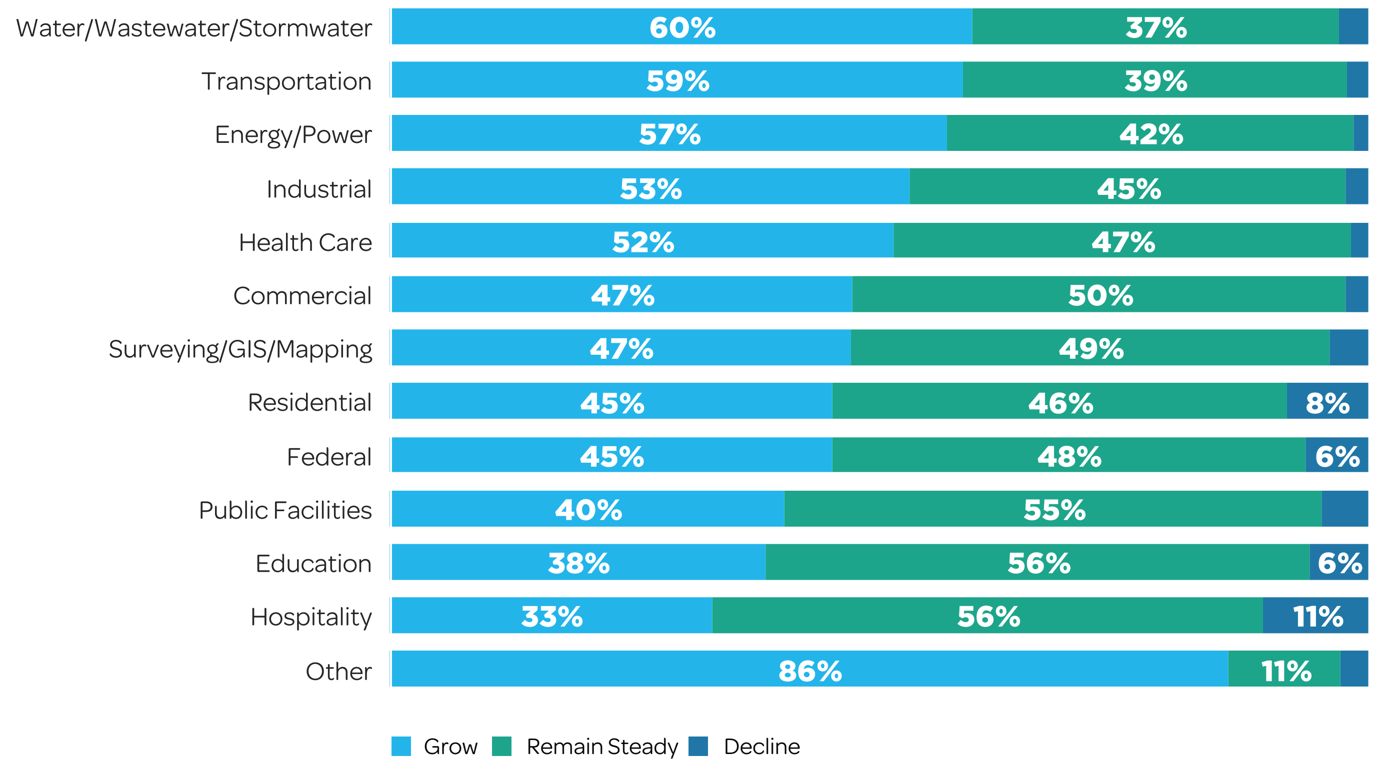
-2

Position in Market Over Next 18 Months

A&E firms were asked whether they expect their firm's position in various markets to grow, remain steady or decline over the next 18 months (through mid-2023).

Firms were most positive about growth prospects in the water/wastewater/stormwater and transportation markets, which are expected to see an influx of funding from the Infrastructure Investment and Jobs Act. Sixty percent of firms expect their position in the water/wastewater/stormwater market will grow (up from 54% of firms the previous year) and 59% expect their position in transportation will grow (up from 57% the previous year).

Firms are optimistic about their position in the hospitality, education and public facilities markets, expecting their position to remain steady while positions in the residential and federal markets are expected to decline.



Business Development Responsibilities

To garner additional insights about staffing trends and their impact on the business development process, survey respondents were asked who is responsible for business development in their firm.

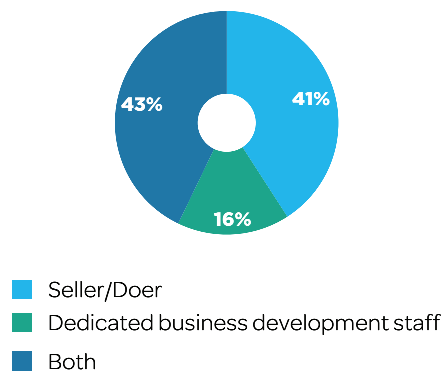
Firms overall were fairly evenly split between those that have a seller/doer model (41%) and those that use a hybrid model (43%), in which business development is managed by both sellers/doers and dedicated business development staff.

The pressure to meet growing business development demands can be seen in the shift among small firms toward a seller/doer model, which grew seven percentage points year-over-year. More large firms employed a hybrid model, growing 18 points.

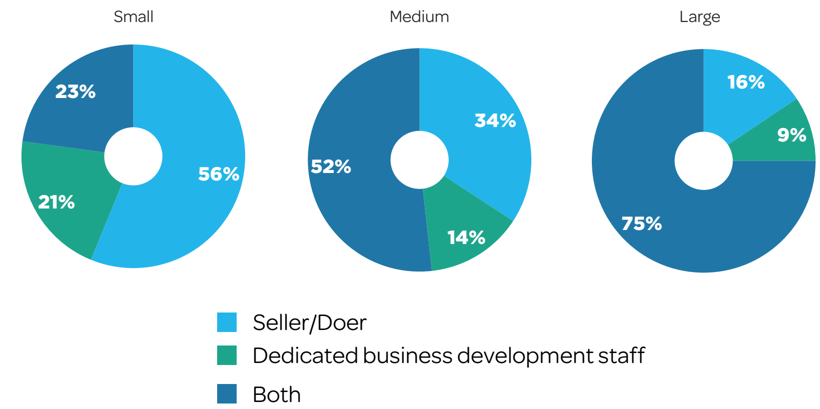
A relatively small percentage of firms (16%) indicated that they use a dedicated business development staff (only) model, a slight increase of two percentage points over the previous year.

Drilling down further, business development responsibility continues to rest with dedicated business development staff and the executive team, with project managers starting to increase their role.

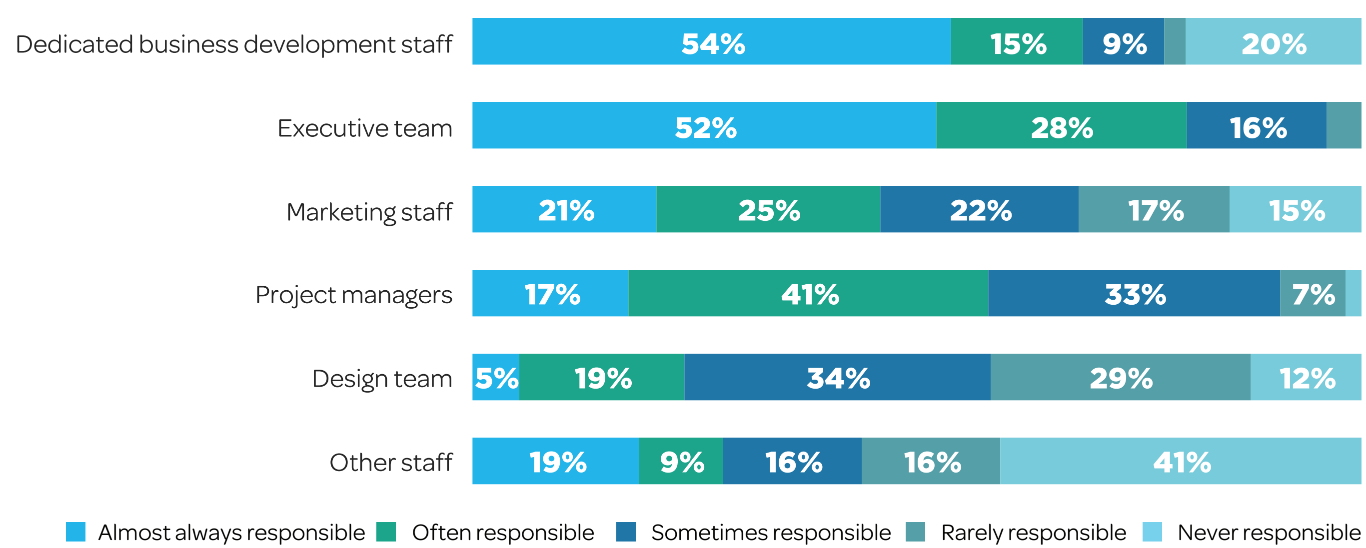
Business Development Model



Business Development Model – by company size



Responsibility for Business Development



44.6%

+6.0

Firms with a Formal Business Development Process

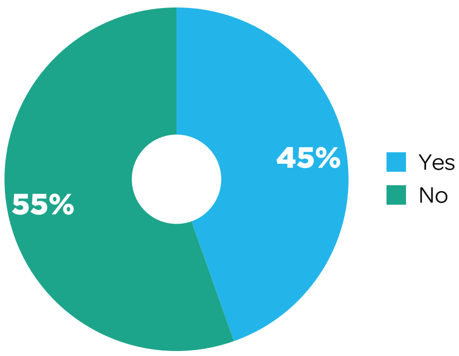
It is encouraging to see that more firms are using a formal business development process, growing from 39% the previous year to 45% this year, up six percentage points year-over-year.

The use of a formal business development process among small and large firms grew (up 11 and 17 percentage points respectively), as did use among architectural firms (up 13 points). The use of such processes in medium-sized firms declined by five points year-over-year.

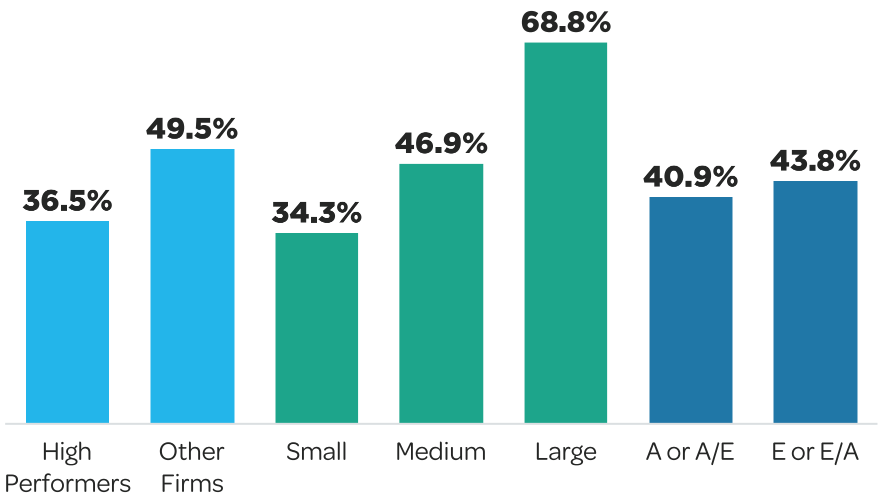
The increased use of formal business development processes, coupled with the increase in win/capture rates, supports the axiom that what gets measured or tracked gets done. As teams build out their business development staff and acquire technology to support their efforts, they will be poised to apply an even more methodical, strategic approach to this crucial area of their business.

For firms not using a process today, BD processes do not have to be rigid, but provide guidelines to ensure collaboration, nurturing and proactive opportunity management across the business.

Firms with a Formal Business Development Process



Firms with a Formal Business Development Process – by size/type



Go/No Go Process

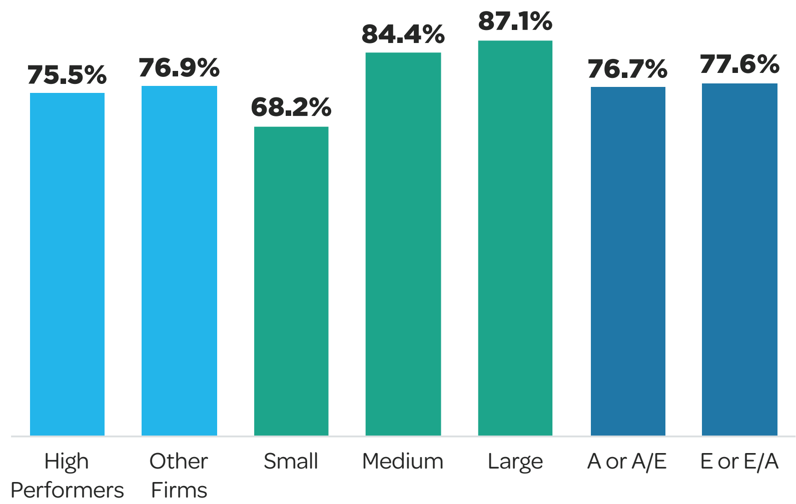
When operating in a market with high demand and limited resources, using a go/no go process becomes critical to evaluate which projects are worth pursuing. More than three-quarters (78%) of firms employed a go/no go process, up two percentage points compared to a year ago.

The Deltek Clarity survey looked at this question with an added level of nuance this year, asking firms to identify the types of opportunities for which they employ a formal go/no go process.

Thirty-five percent of firms used a go/no go process for all opportunities with just more than a quarter (27%) using it for strategic opportunities only.

Among firms that don't employ a formal go/no go process, 27% are considering doing so this year, up two percentage points from the previous year. Medium-sized firms saw the biggest jump in consideration, growing 10 points year-over-year.

Go/No Go Process – By Segment

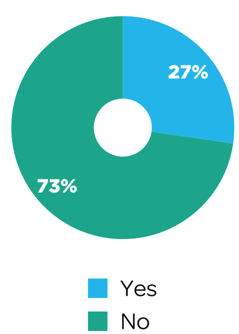


77.8%

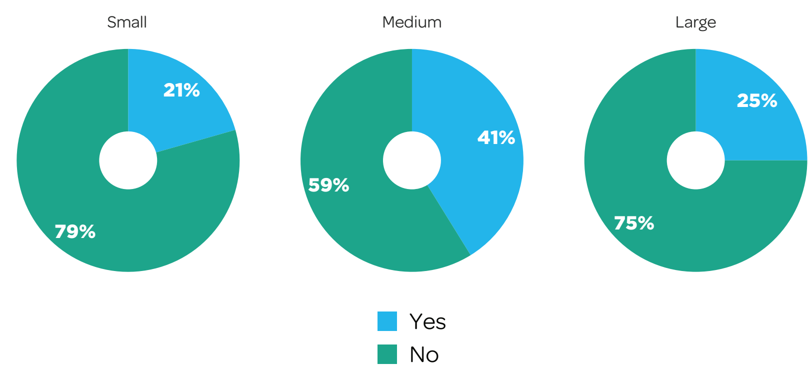
+2.1

Go/No Go Process

Go/No Go Consideration



Go/No Go Consideration – by company size



Top Marketing Techniques

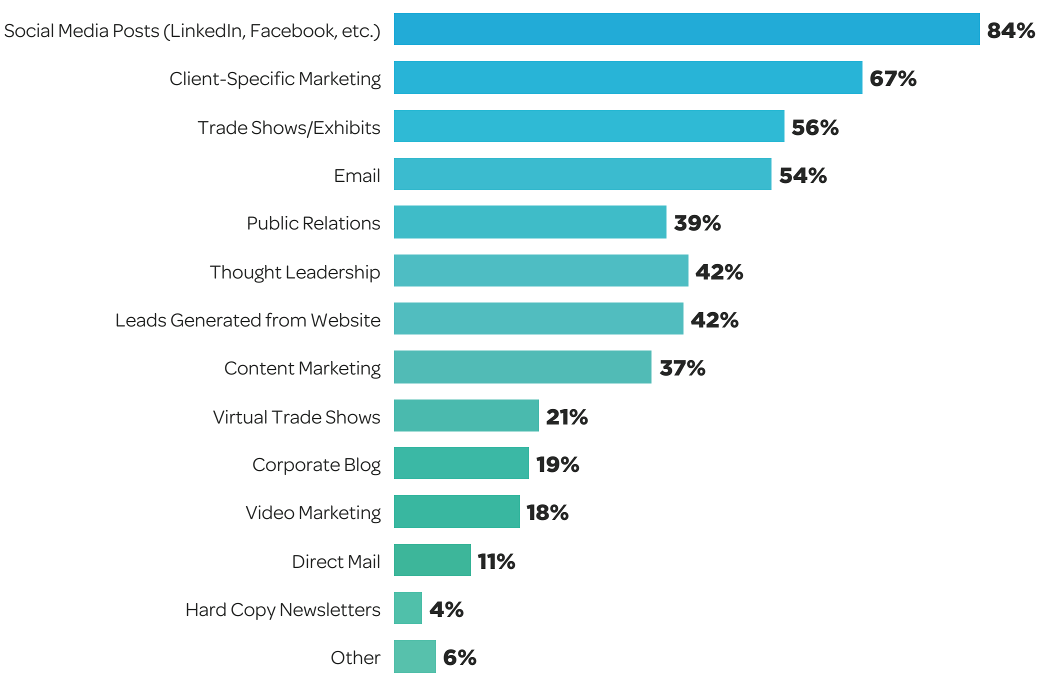
Firms today have a wide range of marketing techniques at their disposal – from traditional trade shows and thought leadership, to emerging high-tech and high-touch techniques.

Social media and client-specific marketing remained the top two marketing techniques, each showing an uptick in importance (up three and two percentage points respectively). Attending and exhibiting at trade shows claimed the third spot among popular marketing techniques, up four points year-over-year.

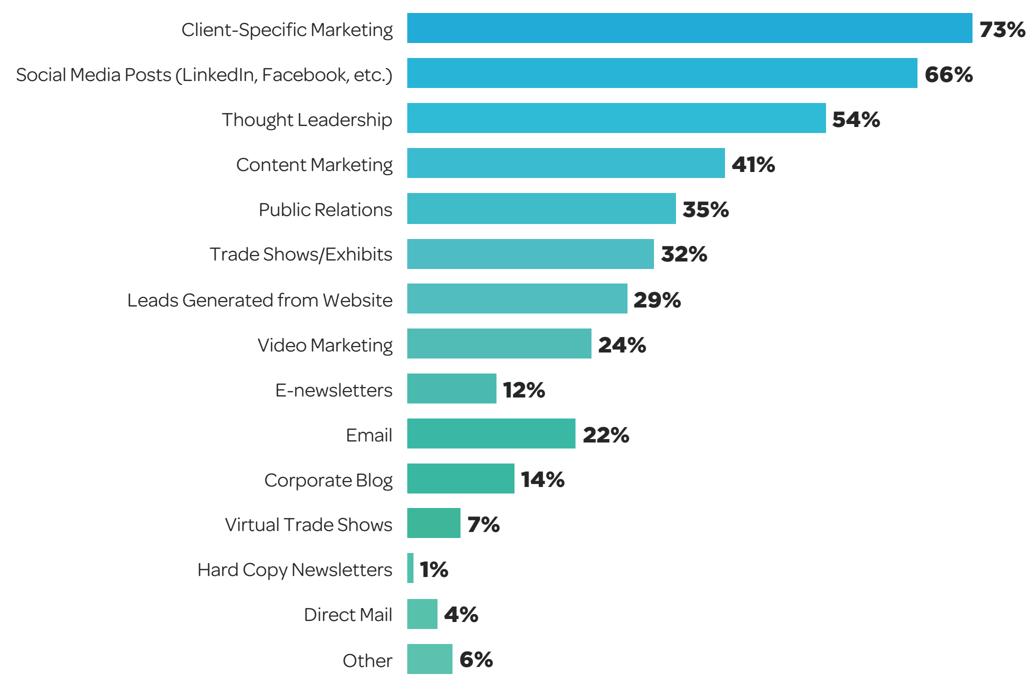
Conversely, use of virtual trade shows, corporate blogs and video marketing showed marked declines, further proving that firms are embracing the return and benefits of high-touch marketing.

Looking to the future, firms are banking on certain marketing techniques over others to position themselves for success over the next five years. The importance of social media to future success grew seven percentage points, while video marketing, e-newsletters and virtual trade shows showed sharp declines. As firms look for what's next, they should better leverage technology and new marketing opportunities to set them apart and complement the high-touch marketing focus of the industry.

Marketing Techniques



Marketing Techniques Most Important in 5 Years

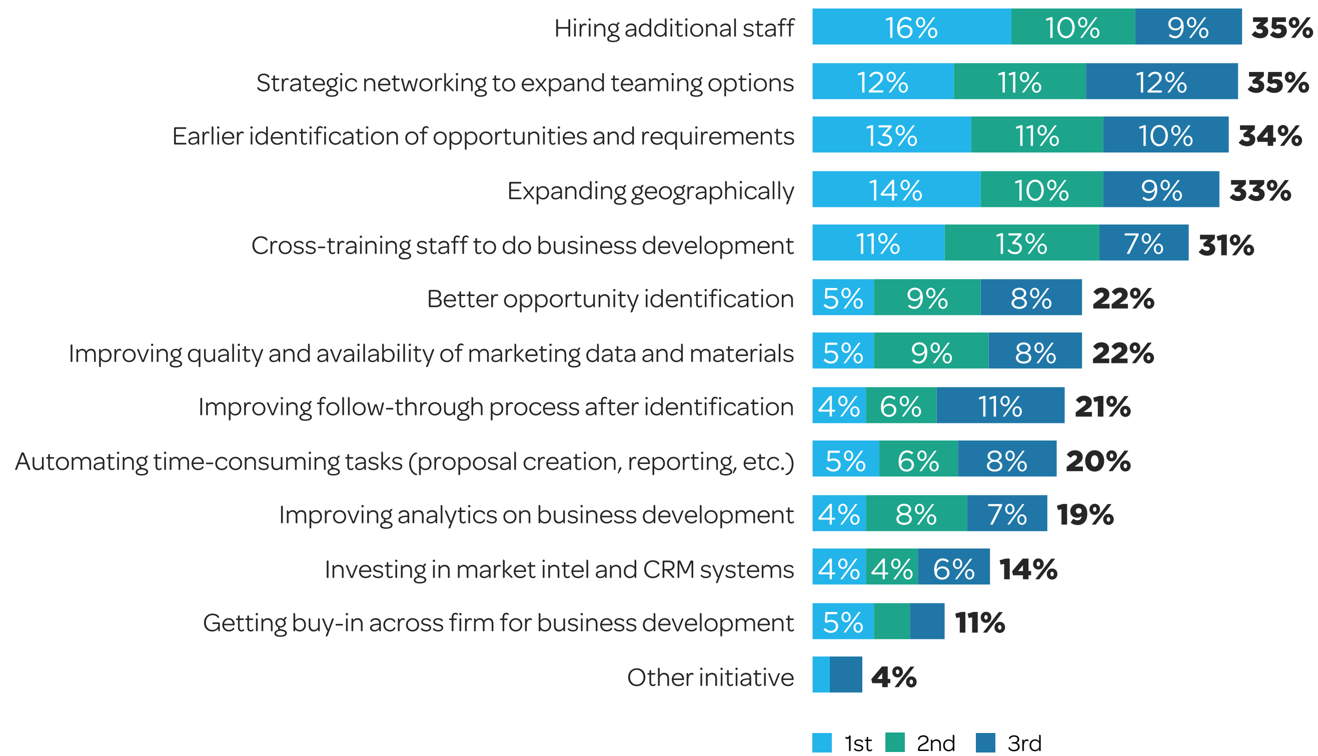


Top Business Development Initiatives

Business development has not been spared from overall industry staffing challenges. Firms are seeing more projects, more proposals and more opportunities to engage with clients, but may be working with a shrinking or overallocated staff. Initiatives to hire additional business development staff jumped greatly, rising from sixth place to first place this year, a growth of 13 percentage points. Geographic expansion also grew in importance among business development initiatives, further compounding the need for additional staff.

Automating time-consuming tasks rose in importance (up four percentage points) as firms prioritized landing new projects versus time spent on manual tasks.

While positive market conditions may have affected a decline in importance in earlier identification of opportunities and requirements (down seven percentage points) and better opportunity identification (down six points), these are still of utmost importance to ensure teams aren't wasting time and resources on projects they can't win.



Business Development

This past year, firms experienced a rebound in market outlook, greatly increasing business development opportunities and wins. With this year's outlook even stronger, firms must be strategic about the opportunities they pursue.

With the near-term outlook for A&E firms largely a good one, growth opportunities can be seen coming from emerging infrastructure markets and from current and new clients alike.

At the same time, the industry landscape has forced a shift in both the business development challenges firms face – primarily lack of time and staff – and the initiatives they are employing – such as hiring – to overcome those challenges.

One of the biggest questions looking forward will be whether, in the face of increased win and capture rates, firms will have the resources in both talent and technology to deliver truly profitable projects. Strategic decisions around which projects to pursue, coupled with deliberate go/no go criteria should help the business development process align with company needs.

Project Management

Performance against key project management metrics declined slightly, while the squeeze on staff to meet project demand continued an upward trajectory.

While most projects were on track for schedule and budget, the percentage of projects that were over budget or behind schedule continued to increase. As project volume rose, firms continued to struggle with staffing challenges that resulted in a material impact on project performance. One pain point was clear: administrative workload remained a key barrier to productivity.

58.5%

Projects On or Ahead of Schedule

A tightening workforce in the face of growing project demand is impacting project schedules.

ADDRESSING TOP PROJECT MANAGEMENT CHALLENGES

1 **Staff shortages**. As more A&E firms face challenges with staffing, strategic project planning will be critical to identify resource gaps and firms will need to re-evaluate their human capital management and hiring strategies to be more agile and competitive.

2 **Competing priorities**. Firms need to delegate resources more purposefully to ensure effective project delivery. Those using clearly defined project management processes and with Project Management Offices or Centers of Excellence are in an advantaged position to eliminate some of the competing priorities and allow staff to focus and excel.

3 **Inexperienced project managers**. As firms right-size their organizations with new project manager hires – or promote from within – training and career development is essential.

A common theme throughout the Deltek Clarity Report – staffing challenges – hit the project management function particularly hard, vaulting 24 percentage points to become the top challenge facing 64% of firms over the next three years.

Staffing constraints affect nearly every aspect of A&E project delivery and bleed over into other areas of the business. For example, with fewer dedicated project managers and more open design positions, PMs and executives may get pulled back into more design delivery and design staff may be asked to deliver even more. In turn, PMs may take their eye off the overall project, and they may not be as productive in design delivery, leading to potential delays in project execution as well as staff burnout.

Because finding trained, qualified project managers has become so difficult, firms are focusing more on training existing staff internally. Such training will be crucial for the 37% of firms indicating that less than a quarter of their project leaders have formal project management training.

Firms also realize that they may need to adjust compensation packages to attract and retain qualified project management personnel. However, to continue their growth trajectory and maintain profitability, firms also need to look at adjusting their billing rates and overall project budgets to adjust for higher salaries.

Staffing constraints and their effect on project delivery can also impact client satisfaction, which is particularly concerning because fewer firms tracked client satisfaction as a key performance indicator (KPI).

In addition to hiring more qualified staff, firms are addressing their project management challenges in several ways. Seventy percent of firms are developing internal best practices, while 40% of firms are focusing on more clearly defining responsibilities.

Despite many project management challenges, firms gave themselves relatively high marks in two key areas of the project management process. Nearly 80% of firms credit themselves for their client relationship management and 56% grade themselves well for their collaboration and communication.

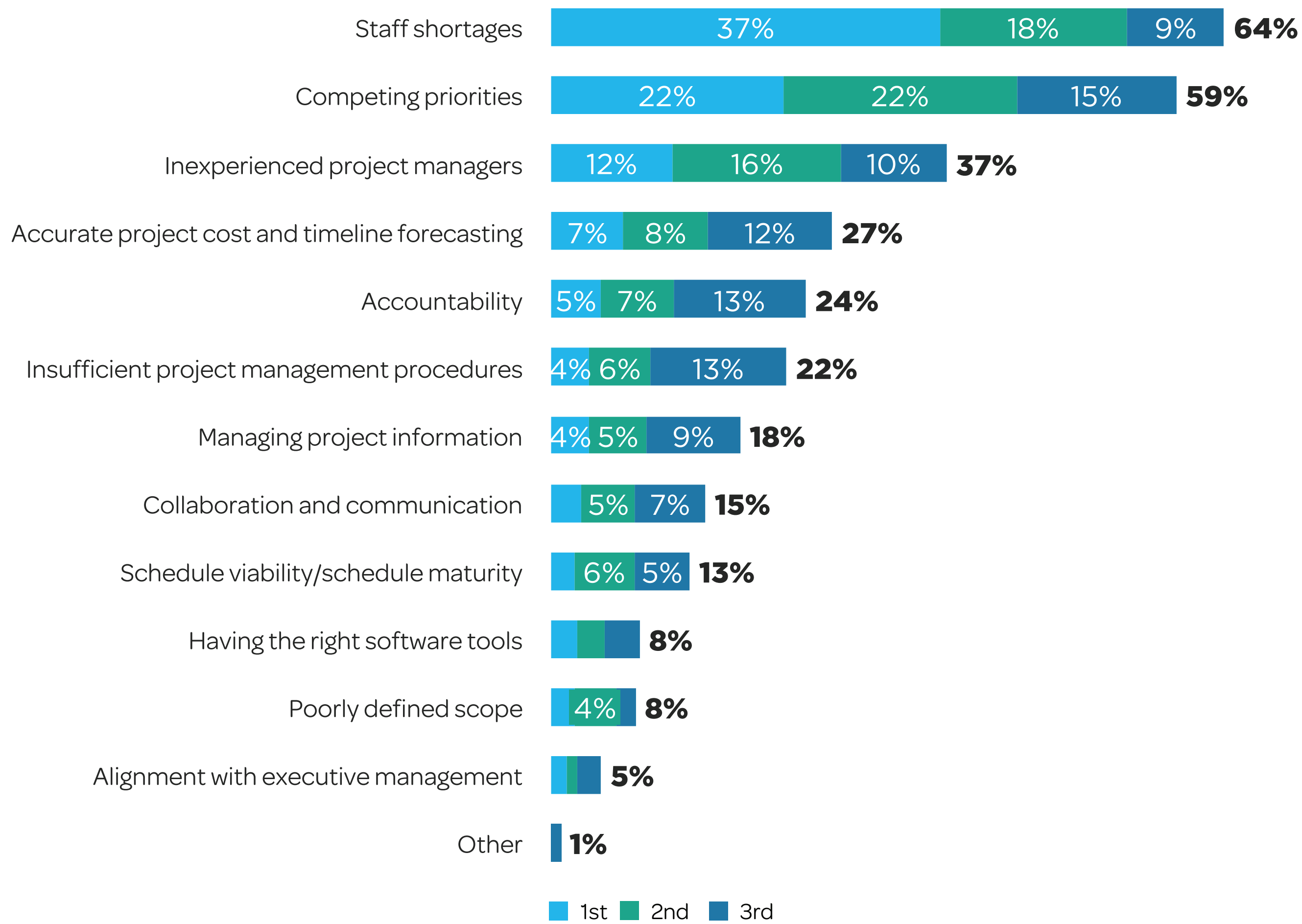
Staffing challenges hit the project management function particularly hard.

Top Project Management Challenges

We asked firms to identify the top three challenges they will face in the next three years and the urgent need for more people was made loud and clear. In fact, staff shortages jumped from 18% to 37% as the top challenge and 64% of firms identified it as one of their top three, up from 40% the previous year.

Closely tied to staff shortages is the challenge of project manager experience levels, a pressing problem reported by 37% of firms. Making good on their desire to hire more project managers and design staff, invest in training PMs appropriately and equip them with the tools they need to do their job efficiently, are within a firm's control with the right strategies and tools.

Competing priorities fell from the top challenge to the second biggest challenge for firms this year, but only decreased one percentage point overall, showing the direct correlation between staffing challenges and competing priorities, especially for project managers. All other challenges remained relatively stable year-over-year.



Additional Challenges Facing Project Management

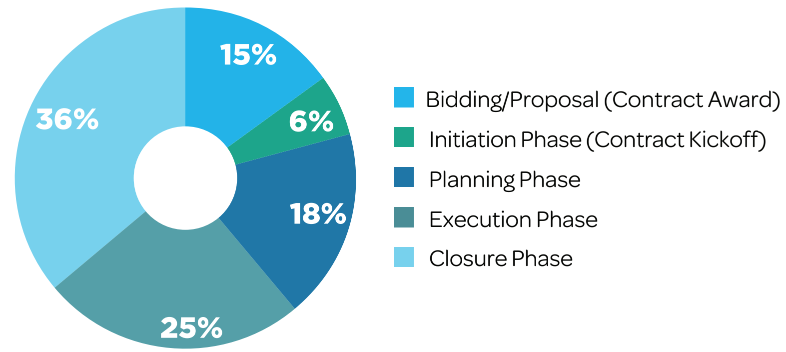
A&E firms provided additional detail around their project management challenges, offering potential insights into where they may best apply new processes, tools and personnel to help.

Of all the phases in a project lifecycle, the closure phase was identified as the most challenging by 36% of firms. A quarter of firms called project execution the most challenging phase. Compared with the prior year, the bidding/proposal phase got easier while the planning and closure phases felt more challenging.

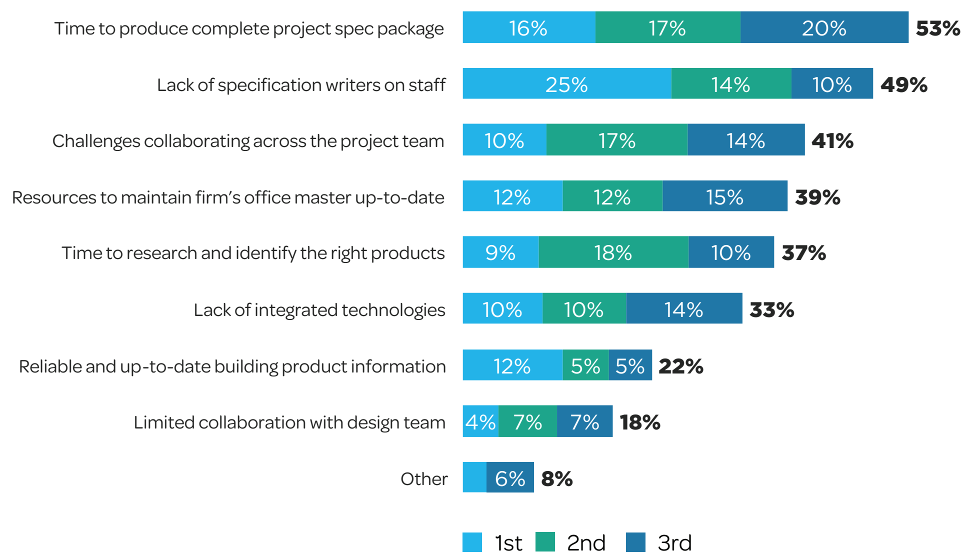
When asked about the construction specification process, just over half of firms (53%) cited "time to produce complete product spec package" as their top challenge. Just under half (49%) cited "lack of specification writers on staff."

Firms also reflected on their top challenges in managing project information, with 57% identifying administrative workload as the top challenge and 53% identifying the management of quality deliverables as their top challenge.

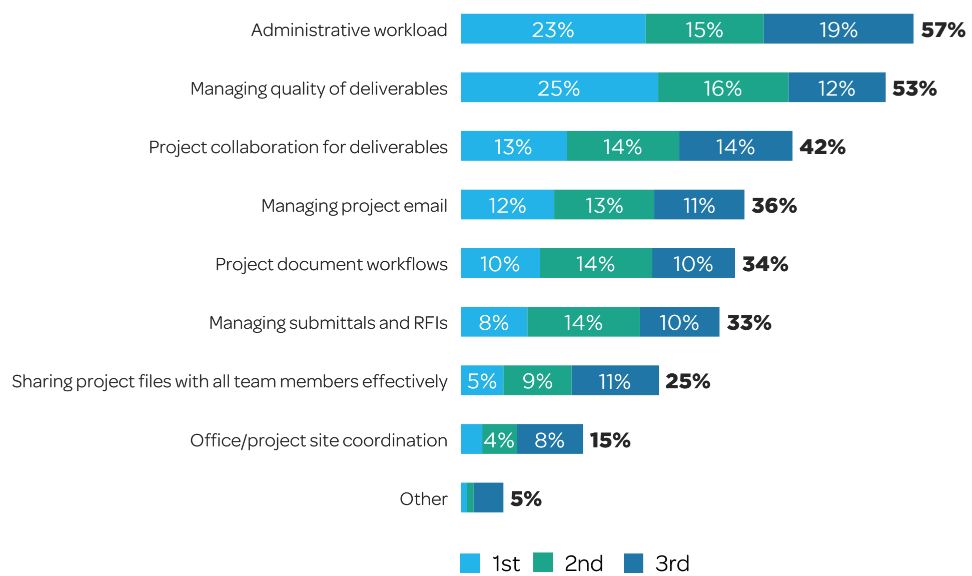
Challenging Project Lifecycle Phase



Top Construction Specification Challenges



Top Challenges to Managing Project Information



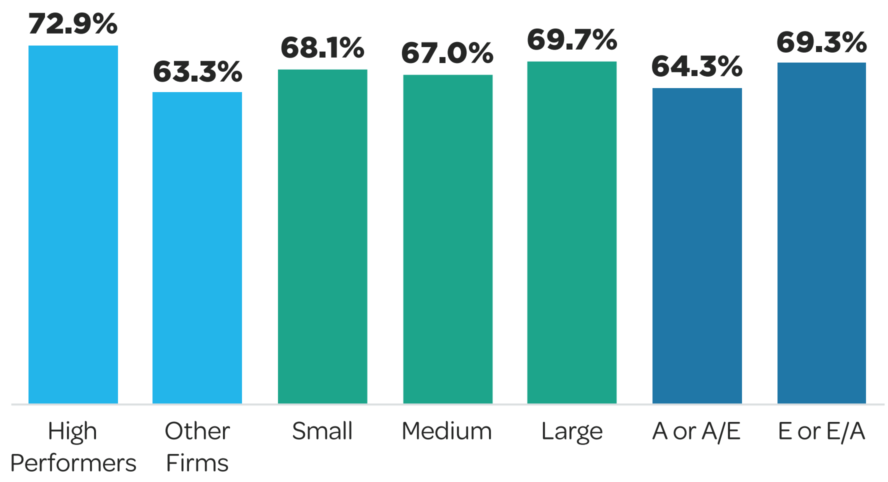
67.8%

5.7

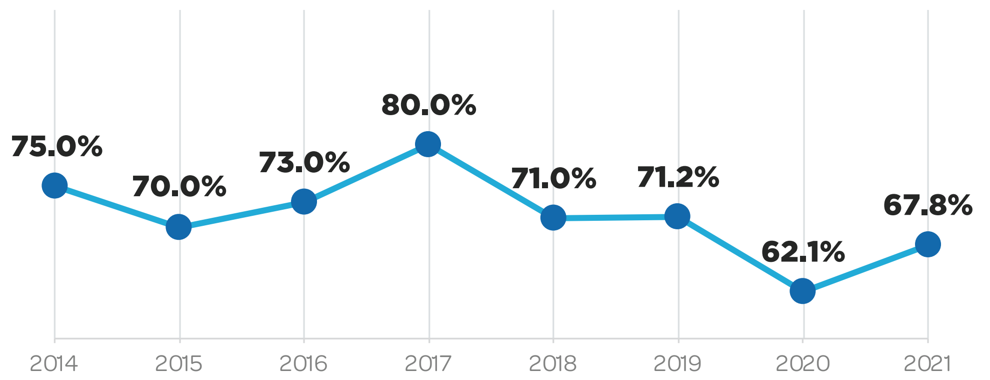
Projects On or Under Budget

Firms reported that 67.8% of projects came in on or under budget, up nearly six percentage points versus a year ago. While large firms experienced a sharp drop (down 14 points), high performers and engineering firms only saw moderate declines (down five points). Increases were observed in small firms and architecture firms (up three points, respectively), reversing the downward trend in the overall percent of projects on or under budget over the past several years.

With attrition numbers on the rise, PMs may be struggling to meet initial project budgets as staff are reassigned to deliver on projects and billing rates may not match the original plan. Firms will need to better manage not only increased labor costs, but they also must be more flexible in mid-project staffing. Tighter controls within and around project scoping and aggressive management of project execution can also increase productivity and drive delivery gains. Clearly defined project management processes and greater accountability in the project management function will help isolate project challenges and keep projects on track.



Projects On or Under Budget: 8-Year Trend

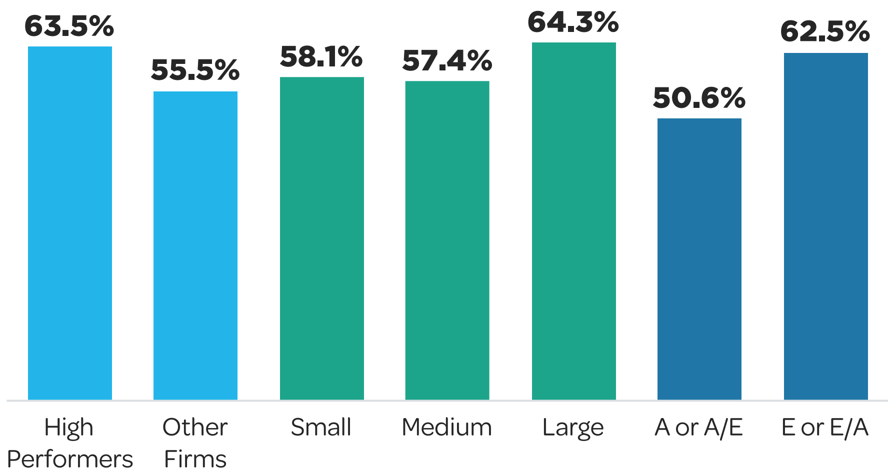


Projects On or Ahead of Schedule

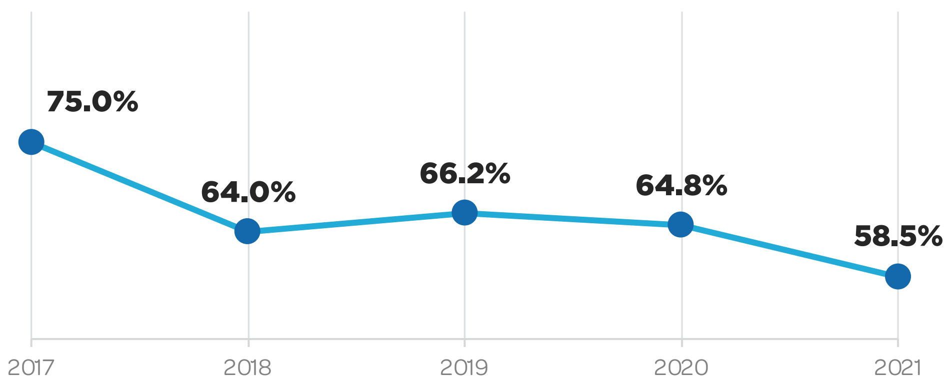
Firms reported that 58.5% of projects were on or ahead of schedule, down more than six percentage points year-over-year.

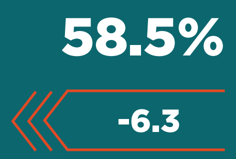
All segments reported declines compared to the previous year, with large firms, high performers and architecture firms showing the greatest declines. The schedule metrics also have declined each year for the past five years, showing a key area that firms need to better manage.

Tightened labor markets certainly impacted productivity, as firms may be understaffed as project volume grew. Specific focus on attracting and retaining talent can help, but project managers will need to be more proactive and agile as some project delays can be driven by clients. Additionally, tracking schedule and cost variances will provide much-needed visibility to trends and facilitate course-correction where necessary. Implementing and leveraging tight project management processes and controls can help project managers deliver more projects on schedule.



Projects On or Ahead of Schedule: 5-Year Trend





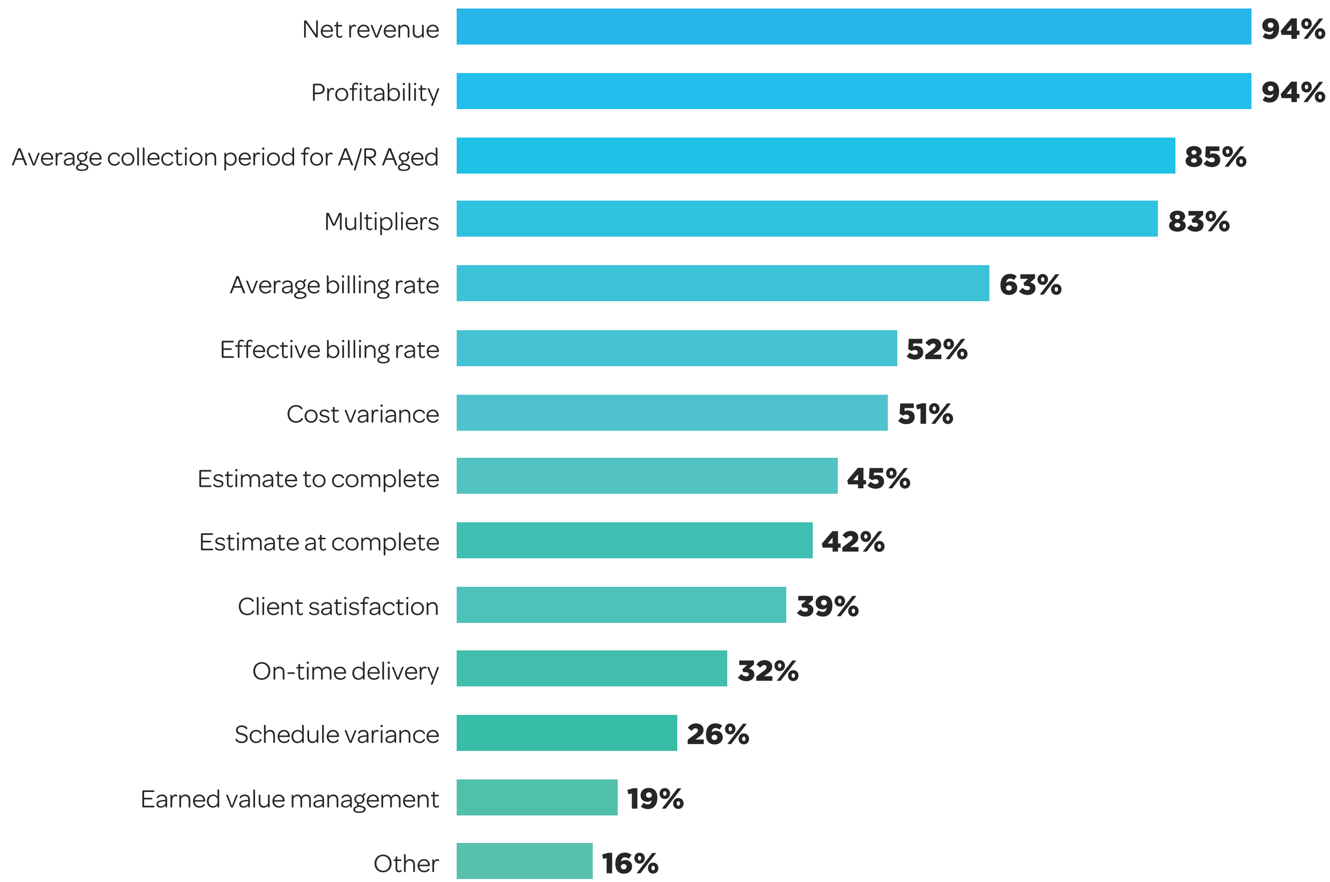
Project Management KPIs Tracked

Project planning and monitoring are critical to effective project management and the firms surveyed use a range of KPIs to track their performance.

Overall, the foundational KPIs tracked remained consistent with prior years and a slightly higher percentage of firms are now tracking the most popular KPIs including net revenue, profitability and multipliers.

One note of concern is that firms are relying more on retrospective KPIs instead of forward-looking KPIs such as earned value and estimate to completion. By waiting until the end of a project or the end of an accounting period to measure results, firms lose the opportunity to use in-progress metrics to proactively drive and improve project performance. And, with the continued declines in schedule and budget, firms should re-evaluate which project management metrics can help them better manage project delivery.

Forward-looking KPIs may seem difficult or burdensome to track, yet firms looking to improve in this area can take advantage of a wide range of project and financial tracking tools give greater visibility to project managers so they can not only manage project profitability, but also reduce surprises and risk.

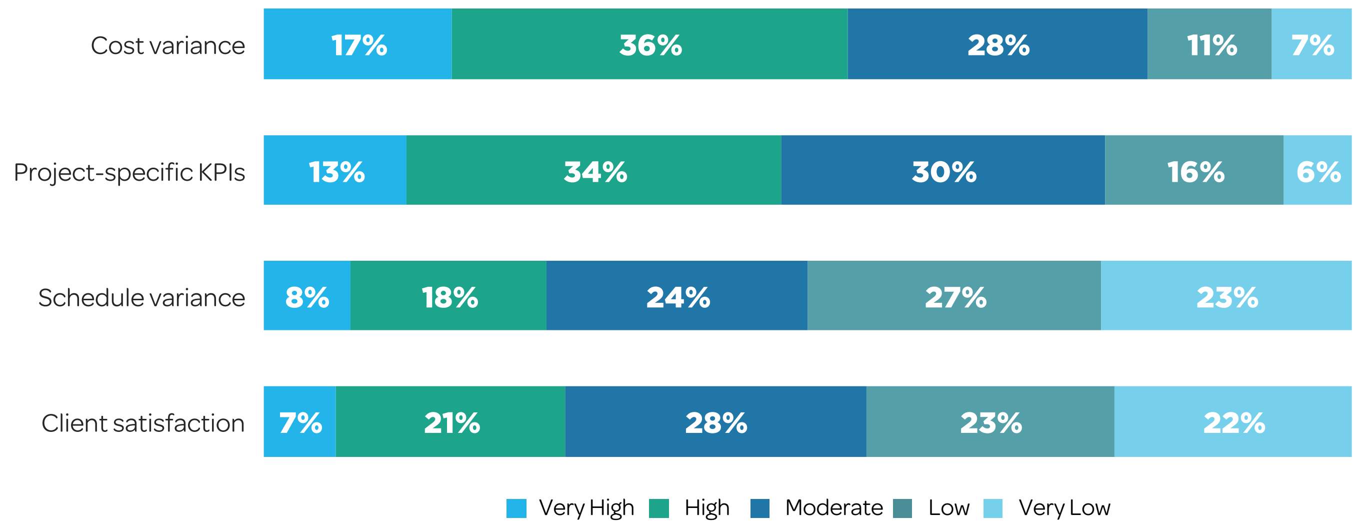


Project Status Visibility

Firms rated the level of visibility project managers and principals have to access and monitor project-specific and firm-wide performance metrics. Overall, visibility levels retracted somewhat year-over-year. The biggest dip was noted in schedule variance, where 50% of firms report low to very low visibility of data comparing scheduled deliverable dates to actual deliverable dates. This change is concerning considering the decrease in projects on schedule.

Given the direct line between schedule variance and profitability, plus the increased focus on project management and project execution challenges, it is concerning that project leaders cannot easily measure and monitor this metric.

In many cases, firms may already have the tools to manage these metrics but are not giving the project managers the right access and visibility to monitor them in real time, requiring them to wait for billing reports or other data that is not timely or actionable.



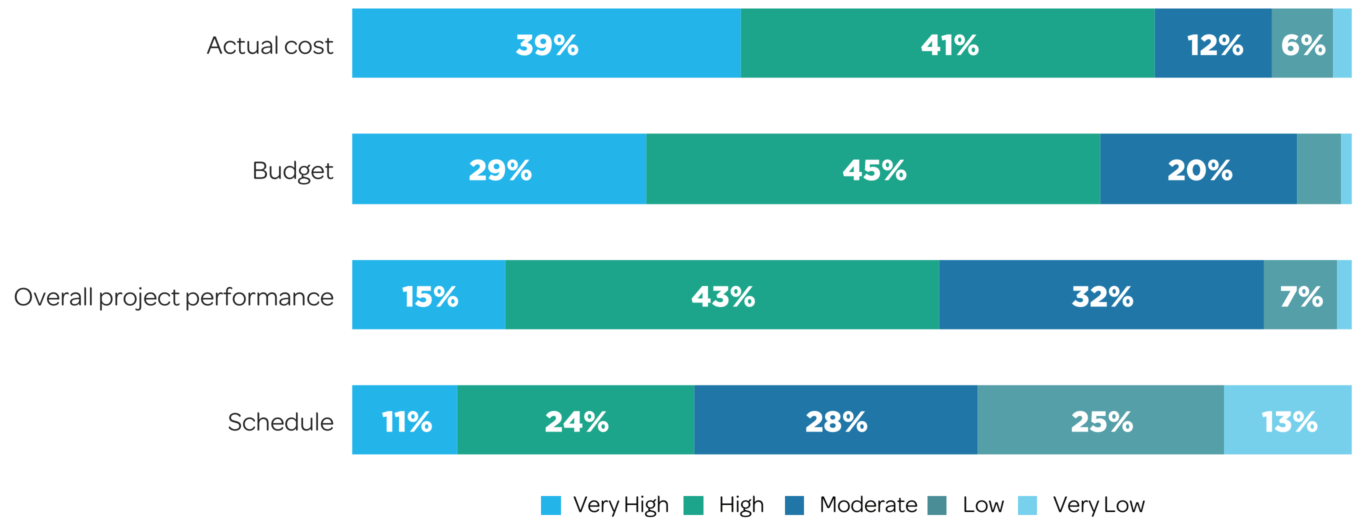
Project Reporting Accuracy

Scheduling metrics were also in the spotlight in terms of project reporting accuracy. Firms surveyed are far more confident in their ability to accurately report on the budget and actual cost of projects than they are to accurately report on project schedules.

For example, while 80% of firms are highly or very highly confident in their ability to accurately report on project costs, only 35% are highly or very highly confident in their ability to report on project schedules. This disconnect is troublesome given increased staffing pressure.

Tracking project schedules is a cornerstone of the project management function and firms' relatively low level of confidence in reporting this key metric made it clear that scheduling has taken a back burner to other project performance metrics, perhaps due to staffing challenges or client changes.

With many contracts driven by percent complete and delivery stipulations, lack of schedule reporting accuracy can impact cash flow, profitability and staff morale.



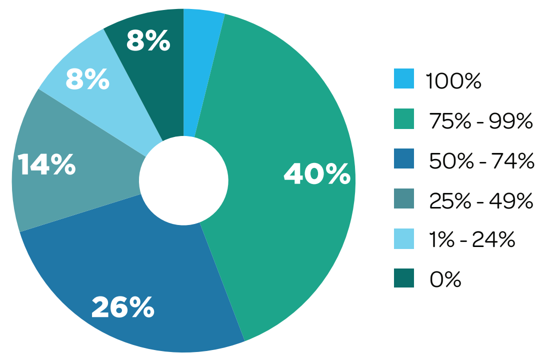
Projects Using Clearly Defined PM Process

Firms reported how often they use clearly defined project management (PM) processes. Only 4% of those surveyed reported using a clearly defined PM process in 100% of projects, a four-percentage-point drop from the previous year. Firms previously in the 100% group likely moved to the 75%-99% frequency, which ticked up six points.

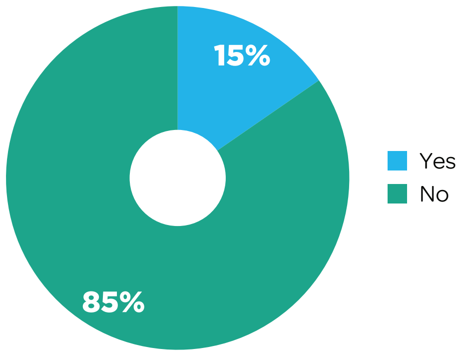
Of notable concern, the percentage of firms' projects not using a clearly defined PM process increased by five percentage points. Moreover, the percentage of firms utilizing a project management office (PMO) or center of excellence for projects remains low, at just 15% of firms, a number driven primarily by large firms.

These numbers may not be surprising, however, when considering the shortage of dedicated, trained PM staff and lack of time to invest in training project managers. It will take time for new project managers to have the process knowledge and insights borne from direct education and experience in project management.

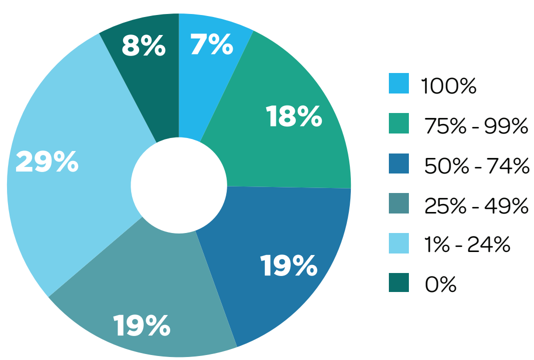
Projects Using Clearly Defined PM Process



Firms with PMO or Center of Excellence



Project Leaders with Formal Project Management Training



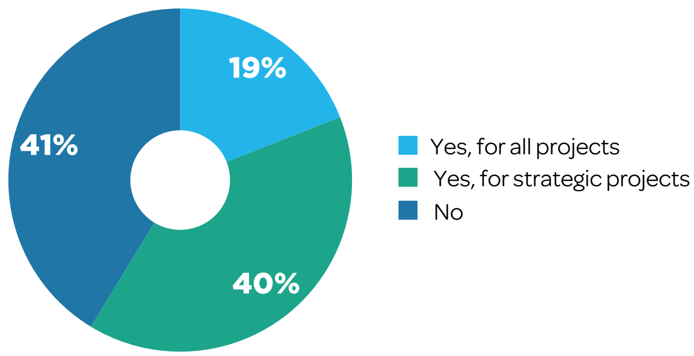
Internal Project Performance Evaluations

On a positive note, the use of internal project performance evaluations increased year-over-year by seven percentage points to almost 60%. Among firms that complete project performance evaluations, 40% do so for strategic projects only, while 19% do so for all projects.

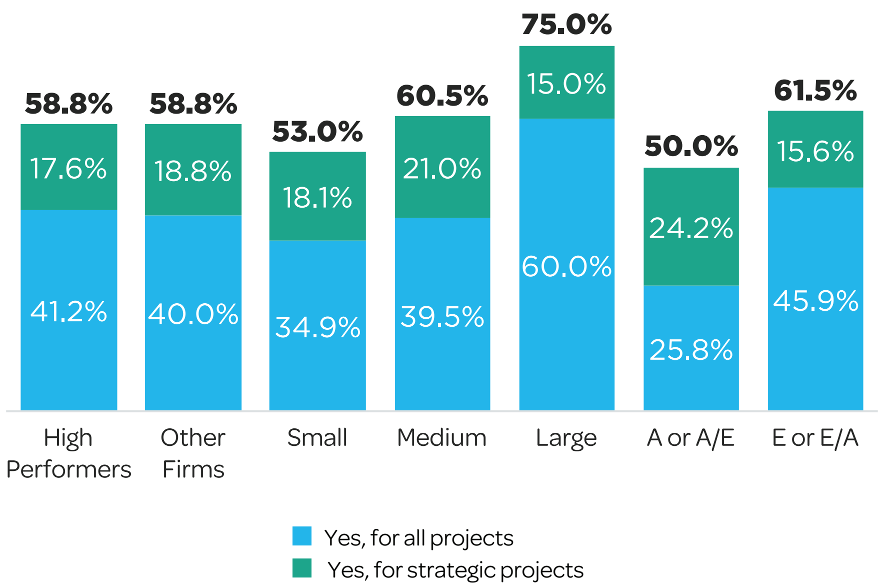
This year, we drilled into the data further to determine how internal project performance evaluations differed by size and type of firm.

The increase in project performance evaluations was driven largely by small businesses, high performers and engineering firms. Large firms' responses indicate that they are most likely to conduct evaluations, particularly for strategic projects.

Of the 40% of firms not evaluating project performance, nearly half are considering implementing internal performance evaluations. As firms struggle with staffing, evaluations can not only increase project performance, but can boost employee engagement with more timely and relevant feedback.



Internal Project Performance Evaluations by Firm Size/Type



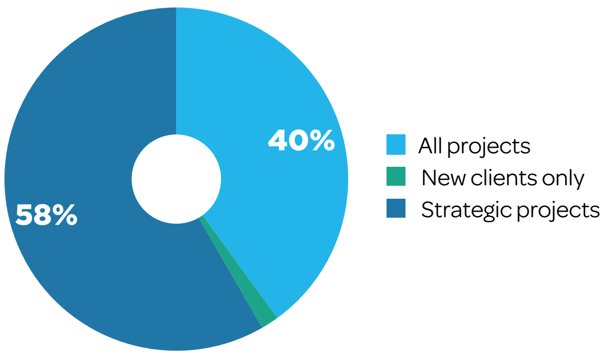
Measuring Client Satisfaction

Satisfied clients are among a firm's most powerful tools to drive the expansion of future work and new business referrals. The larger the firm, the more likely it is to measure client satisfaction (CSat) on all projects. This year, medium-sized firms increased their CSat measurement on all projects by 36 percentage points.

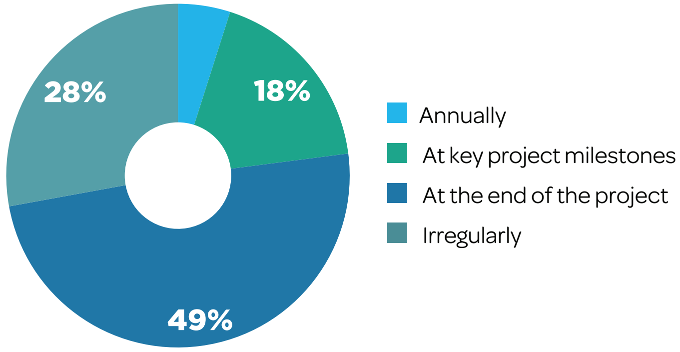
Half of firms – up nearly 20 points from the previous year – report that they typically measure client satisfaction at the end of a project, while only 18% do so at key project milestones.

As with internal reviews, this reactive vs. proactive strategy – looking back after project completion instead of looking forward during project execution – leaves firms challenged to change gears and pivot when problems arise. By making this a more proactive check-in, firms can not only improve overall delivery, but can create a simpler and less daunting task for companies. Firms can also distribute responsibility for capturing feedback to alleviate some of the burden from the PM.

Measuring Client Satisfaction by Project Type



Frequency of Measuring Client Satisfaction



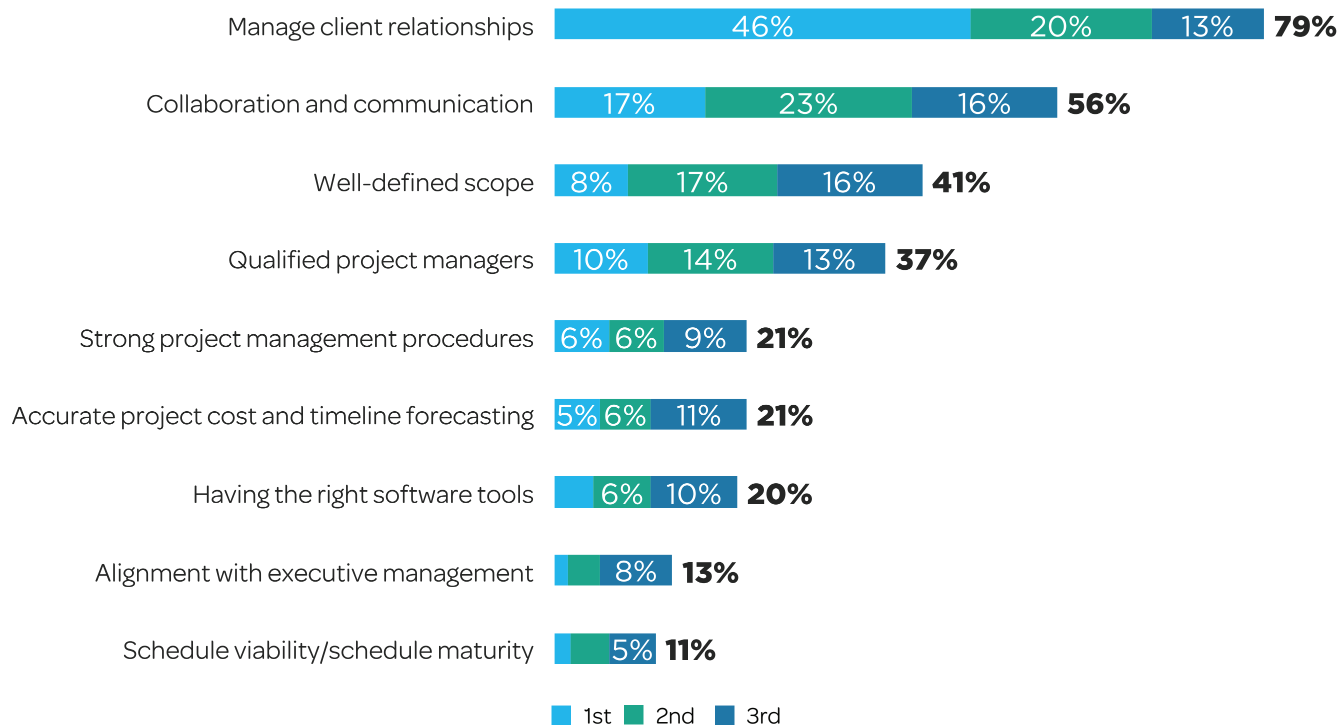
What Firms Do Well in Project Management

Firms continue to give themselves relatively high marks for project management, especially for softer metrics such as managing client relationships and collaboration and communication.

Firms' self-assessment of their ability to manage client relationships remained in the top spot this year and while collaboration and communication is solidly second, it dipped year-over-year. Firms felt better about their well-defined scoping abilities, which increased five percentage points year-over-year.

Self-assessment of scheduling-related processes continued to trail well behind all other aspects, reflecting earlier survey data points around firms' low levels of schedule variance measurement and reporting accuracy, as well as lack of PM and executive visibility into schedule-focused metrics.

Plus, in keeping with staffing challenges, just slightly more than a third of firms (37%) are confident in the quality of their project managers for projects, reflecting a clear and urgent need to bolster training initiatives.



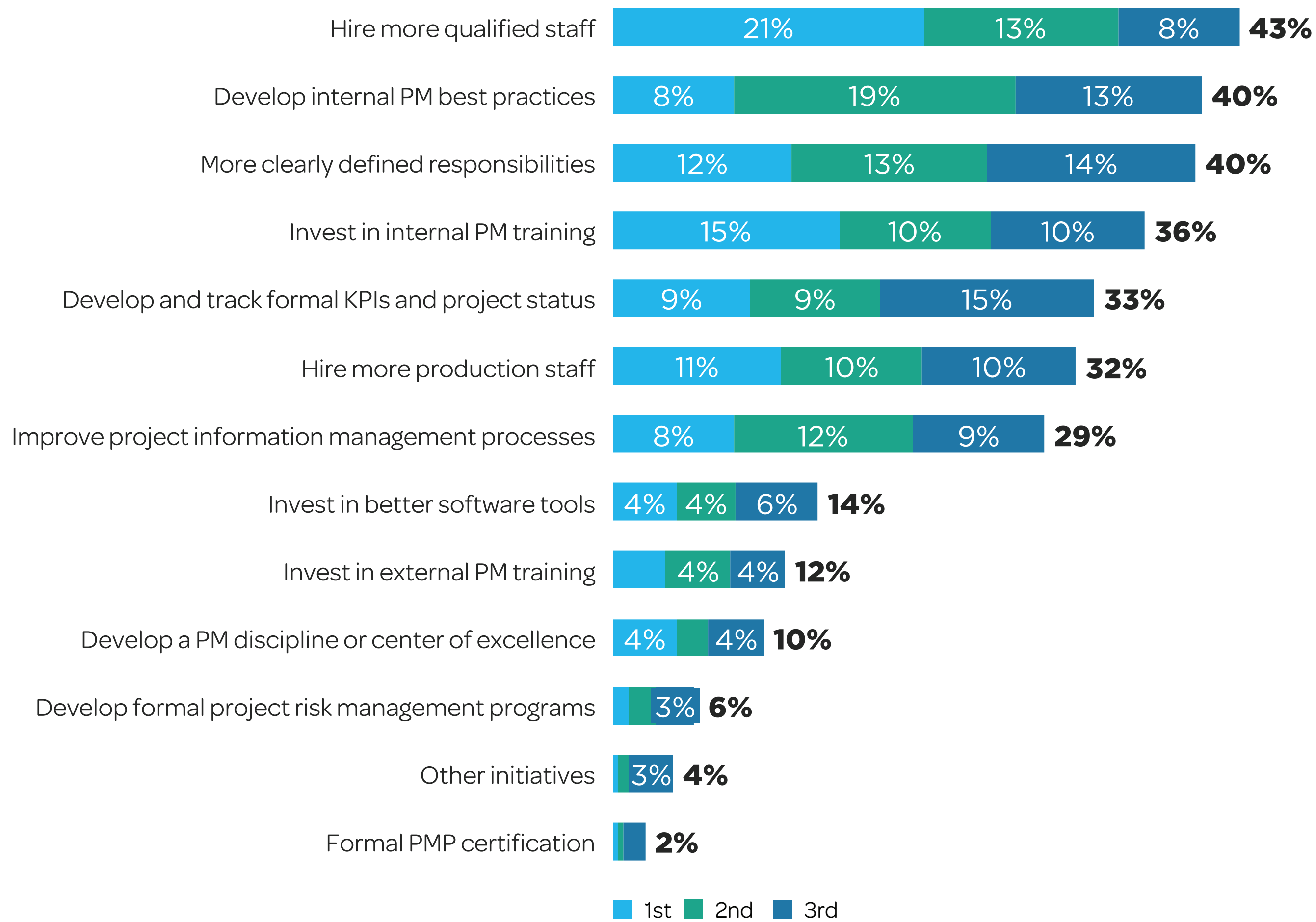
Top Project Management Initiatives

How will firms tackle the challenges they're facing over the next three years? Investment in people and processes topped the list.

Just over two-fifths of firms identified hiring more qualified staff as their top initiative, compared with about a third of firms the previous year. Hiring more production staff emerged as a key focus area, moving from the eighth biggest initiative to the sixth this year, a 19-percentage-point increase.

Firms plan to focus on clearly defining project management responsibilities and developing best practices for project management, with investments in internal PM training following closely behind.

While these process-oriented initiatives will require people to move forward, the related staff burden can be ameliorated by taking advantage of efficiencies available through better use of software and automation. Unfortunately, only 14% of firms are prioritizing investment in better software tools, down from 21% the previous year. Firms should start by identifying how they can better leverage the tools they already have and then identify gaps for future investment.



Project Management

The project management staffing shortage is real, forcing firms to manage projects reactively instead of proactively and negatively impacting virtually every area of operations. Removing administrative burdens and delivering better project visibility should ultimately improve the process and reduce risks.

As experienced project managers leave a firm, the company will be challenged to find new project managers with the credentials to jump into projects quickly and manage them profitably.

A&E firms need to do more than simply hire more project managers. They also need to keep them engaged by providing them with the training, tools and time they need to deliver the metrics and visibility required for proactive project management. Project managers also need opportunities to move up into leadership positions.

Monitoring forward-looking KPIs and finding better ways to track and leverage milestone metrics throughout the project lifecycle should go a long way toward encouraging project managers to stay invested in their work. The goal is to help project managers think beyond a retrospective look at "what happened" and toward a look at "what's next?"

SECTION FIVE

Human Capital Management

Firms must focus sharply on growing and supporting staff to meet existing and new project pipelines.

The number of firms reporting more open positions soared, helping to vault employee retention from the number six challenge facing Human Resources to the top spot. Firms have responded not only with an increased focus on retention tactics, but on expanded employee development and support. Having the right technology solutions and tools in place to help employees succeed will help mitigate burnout and improve delivery success.

13.6% **Employee Turnover**
Employee turnover increased across firms of all sizes.

ADDRESSING TOP HUMAN CAPITAL MANAGEMENT CHALLENGES

1 **The availability of good candidates**. The workforce is evolving, and the understanding of talent needs is evolving as well. Firms are realizing they need good employees, and that finding good candidates is only part of the equation. A key to success is facilitating growth and developing employees already hired, which involves upskilling and purposely developing talent, to position the firm to capitalize on growth and improve retention.

2 **The ability to offer competitive compensation**. It is a candidate's market. The need for firms to remain competitive with compensation is not expected to wane anytime soon. Offsetting the increased cost of labor with more efficient delivery tools and technology solutions will be essential.

3 **Matching qualified candidates to open positions**. With fewer available candidates to vet, firms may need to re-evaluate mandatory position requirements and attract talent by implementing and offering increased learning and development programs. Additional focus may also be needed for evaluating skills and competencies for open positions as well as finding candidates with transferrable skills who can be trained.

A&E firms rebounded in the last year and forecast even greater growth in the coming year as clients continue to drive new projects forward. These favorable market conditions spell good news for firms, which are projecting the highest net revenue growth in a decade.

This growth, teamed with the negative staffing impacts of increased turnover and more open positions, has firms scrambling for talent to capitalize on it. Once new projects come in the door, will firms be able to staff them adequately? Without proper staffing levels, project execution may falter. Delivery dates could be missed. Staff may be forced to pivot into new responsibilities (on top of their existing workload), leading to burnout and possibly greater attrition.

Firms will need to be more strategic about attracting new employees and retaining existing ones. Competitive compensation packages (salary and benefits) will be increasingly important, but they are only a start. The workforce is ever evolving in not only how they work, but also in what they value in a position and a company culture. It will be important for firms to evolve as well in how they engage employees, cultivate a positive corporate culture, provide opportunities for training and advancement, and onboarding tools to ease delivery and ensure project success.

In order to stem the impact of staff shortages and lack of a solid candidate pipeline, firms will need to focus more sharply on employing the right strategies, benefits and technologies to incentivize people to not only come aboard, but to stay.

Once new projects come in the door, will firms be able to staff them adequately?

Top Talent Acquisition Challenges

As a service provider, A&E firms are directly dependent on employees to drive revenue and growth. When job vacancies go unfilled, opportunities are missed and project delivery suffers.

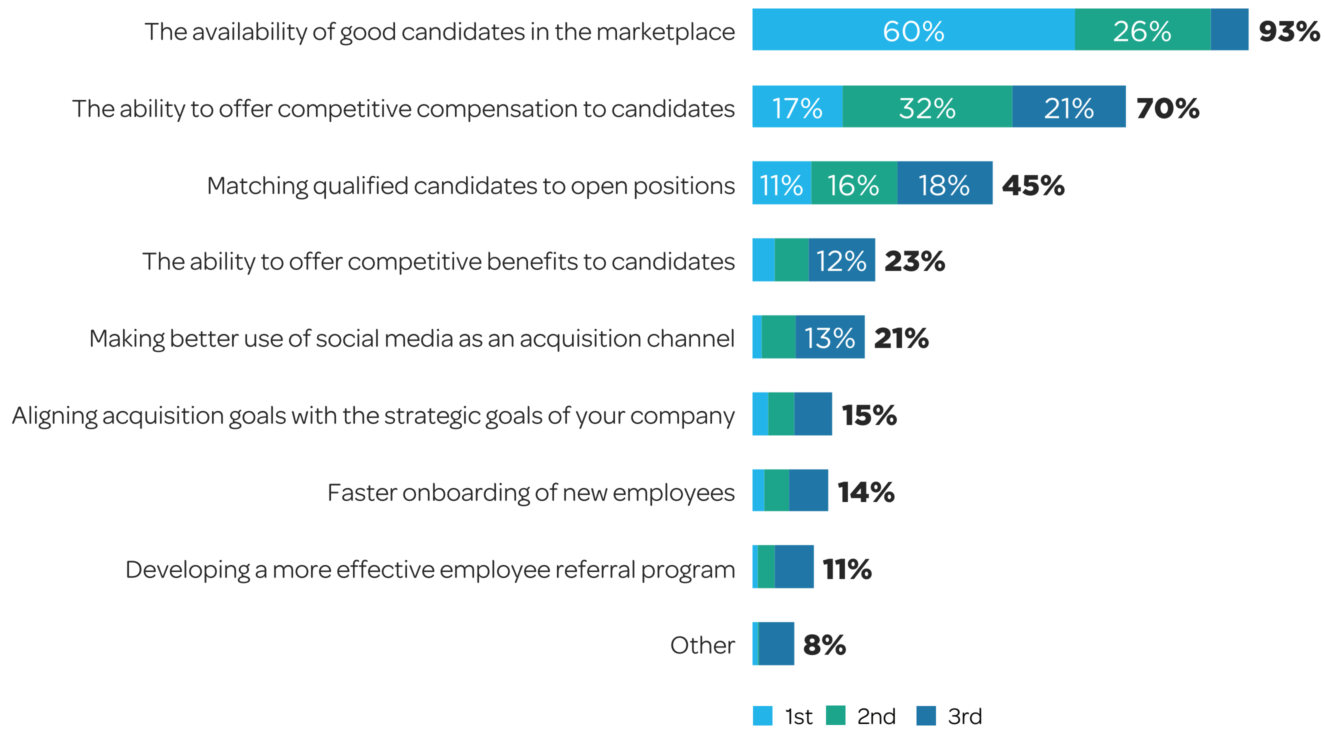
Over the past year, A&E firms experienced greater employee turnover and regrettable attrition with more than nine in 10 firms ranking the ability to find good candidates a top challenge.

Over two-thirds of firms (70%) point to their inability to offer competitive compensation as a key challenge, up 18 percentage points year-over-year. Almost a quarter cited challenges in offering competitive benefits, which today go beyond medical and dental to encompass a range of work-life balance benefits.

When considering increasing compensation to better compete for talent, firms will need to determine the impact of rising labor costs on revenue growth.

Leveraging technology tools for more efficient delivery and increased tracking of key performance metrics and financials will be important for firms to understand and manage the impact of increased labor costs on revenue.

Firms will also need to re-evaluate their recruiting methods, taking advantage of benefits like remote working to attract talent from around the world, if possible.



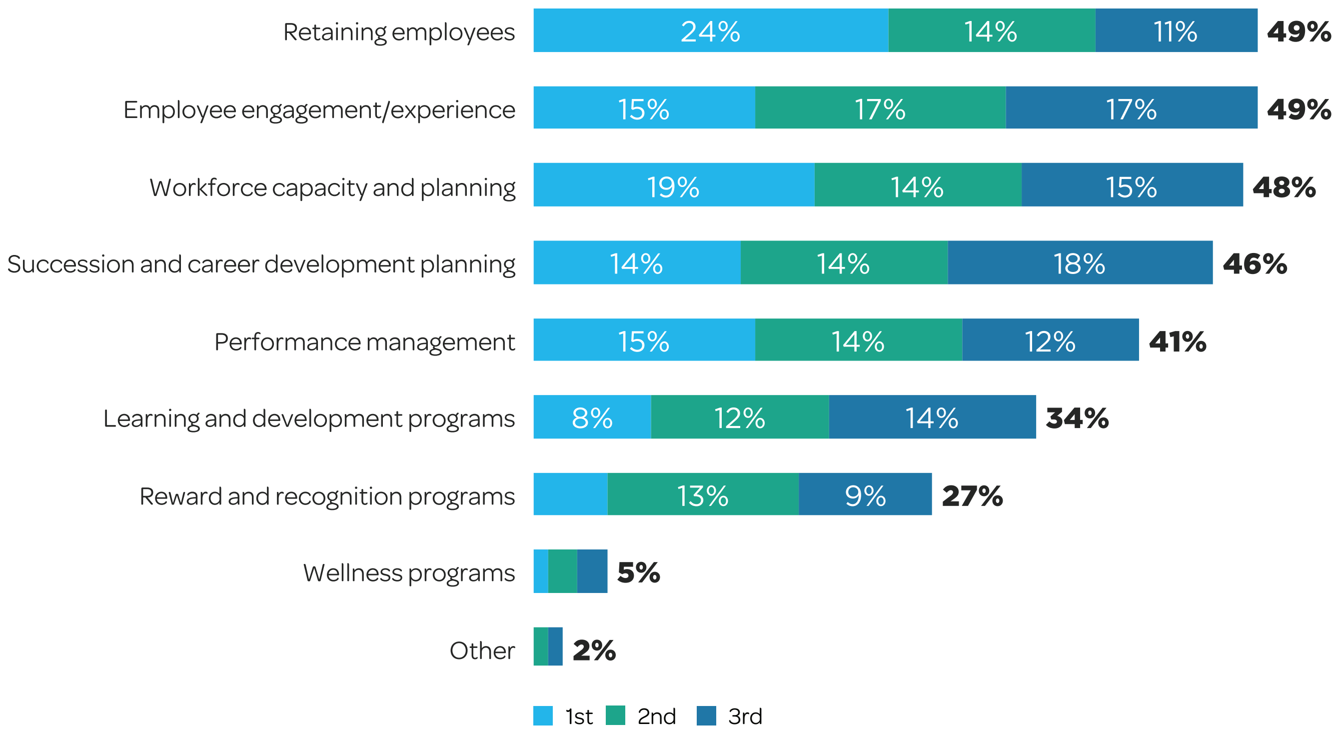
Top Challenges Managing Human Resources

Feeding the top talent acquisition challenge of finding new employees, are A&E firms' increased struggles to retain existing employees. This grew from the sixth top challenge the previous year to the top spot, up 14 percentage points year-over-year. Challenges in workforce capacity and planning increased, up six points, as firms grapple with how to best utilize the people they have.

Direct compensation and benefits aside, offering employees an engaging work experience can greatly impact job satisfaction and nearly half of firms reported challenges in this area.

The modern workforce has been craving development and modern engagement practices. Even when the market settles, this will not go away. Firms who have not modernized the HR side can solve today and tomorrow's challenges by starting to modernize.

Tracking the effects of these initiatives and utilizing technology to efficiently deliver them will be important to rationalize continued investment.



3.2%

2.7

Top Quarter

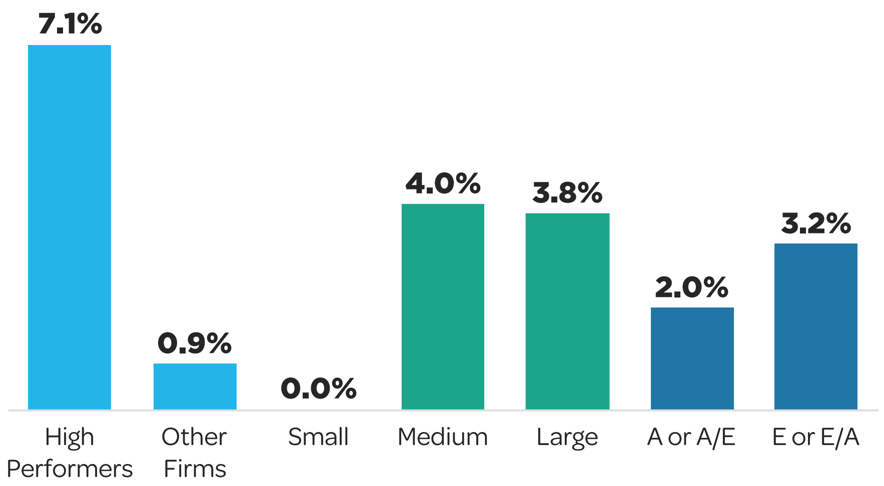
11.1%

Bottom Quarter

-2.1%

Staff Growth/ Decline

Despite challenges finding qualified staff, firms are growing. On average, firms saw overall staff numbers increase more than 3% and gains were seen across most segments. The exception was observed in small firms, whose growth remained flat. High-performing firms experienced the most growth, increasing just over 7%.



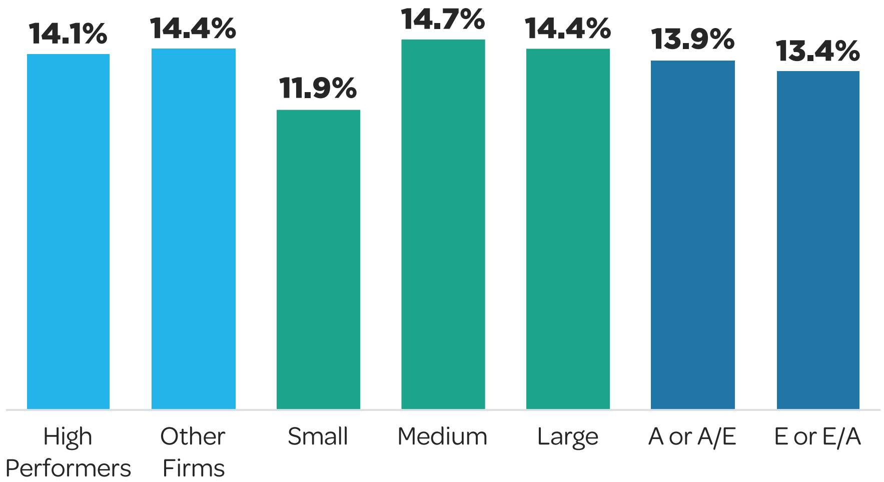
Employee Turnover

The staff growth firms experienced was offset, however, by relatively high staff turnover. Overall, firms saw a nearly 14% churn rate, up almost two percentage points from the previous year. Small and medium-sized firms saw the biggest jump in employee turnover, each increasing by over two points.

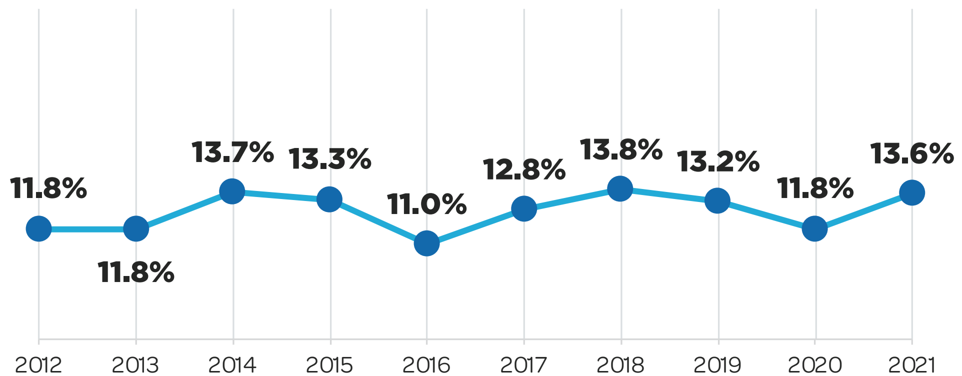
Continued erosion of workforce levels makes it difficult for firms to make strategic decisions around business development and project staffing. Will they have enough employees to staff incoming projects? How will a decline in billable hours affect profitability? What should firms do to ensure that an overburdened workforce doesn't subsequently become underutilized post-hiring?

"Staffing challenges are already affecting projects with reduced quality and schedule challenges. The obvious first step is to retain the people you have."

-Paula Stamp, CPSM, Board Member, SMPS



Employee Turnover: 10-Year Trend



13.6%

+1.8

Top Quarter

19.1%

Bottom Quarter

9.1%

Open Positions and Hiring Lead Times

Higher employee turnover coupled with increasing project win rates could mean firms have more empty seats to fill. The share of firms reporting more open positions increased 32 percentage points compared to the previous year, making it clear that the A&E job market is an open and competitive one for professionals looking to change positions or enter the industry.

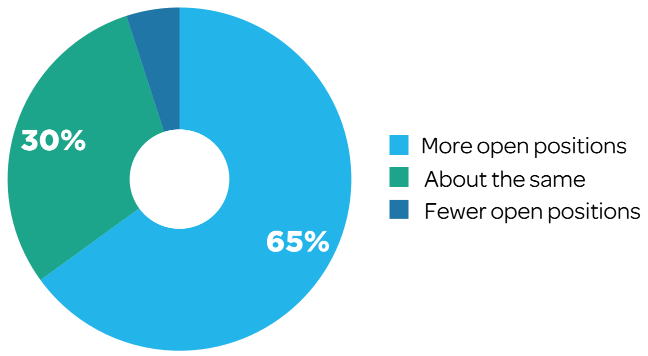
A&E firms are largely bullish on their futures, projecting significant growth in revenue – a growth trajectory that will require more staff and more efficient hiring processes.

Hiring new staff is only part of the story, however. Firms continue to contend with filling existing positions as well.

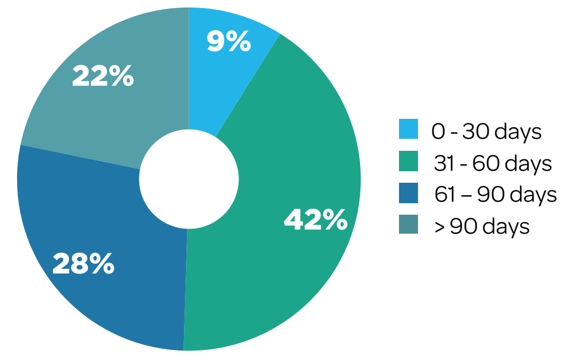
Not only are firms struggling to find candidates, but the hiring process has become longer, reaching more than 90 days for 22% of respondents.

Firms have decreased average lead time from hire to billable to 35 days, down from 38 days the previous year. Firms need to evaluate hiring processes to balance speed and candidate quality, eliminating unnecessary lag and steps in the interview process to acquire the right talent before competitors.

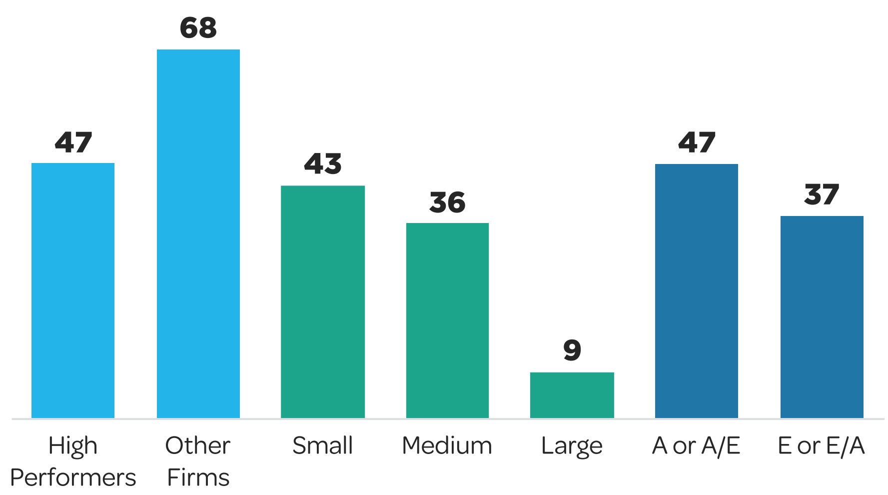
Number of Open Positions



Average Time to Fill Position



Average Lead Time to Billable

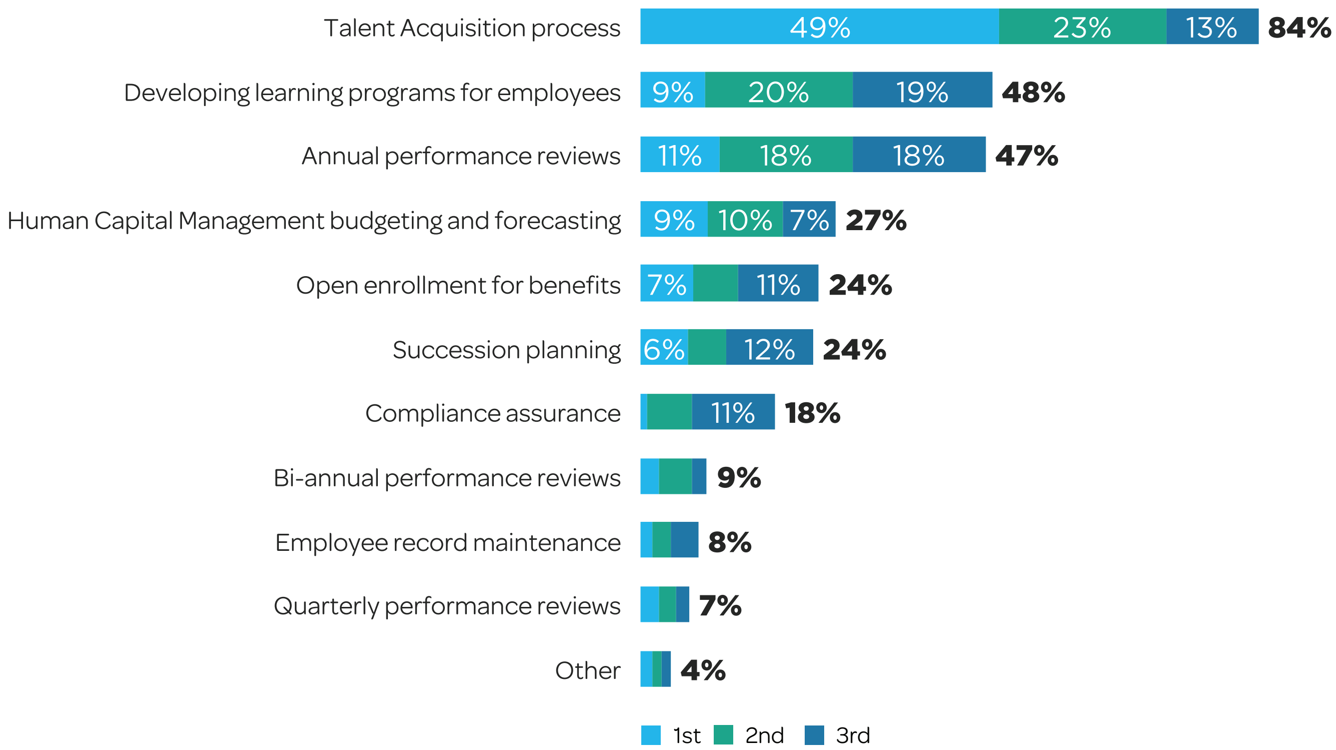


Most Expensive HCM Process to Support

Given the staffing challenges firms are facing, talent acquisition was reported to be the most expensive business process for A&E firms to support, growing nine percentage points year-over-year. Nearly half of all firms ranked this in the number one spot.

One way for firms to decrease spiraling costs related to talent acquisition is to maintain focus on improving culture and process initiatives that lead to retention – a strategy that reduces the need for expensive headhunters who are commanding ever-larger fees to place higher-salaried employees.

Development of learning programs – the second most expensive Human Resources process – can pay long-term dividends by upskilling in-house personnel to take on increasing levels and areas of responsibility. Given performance reviews are the third most expensive HR business process and receive low marks from employees, firms should modernize their performance management practices and consider continuous feedback and goal management, which are desired by the modern workforce and directly contribute to increased engagement.



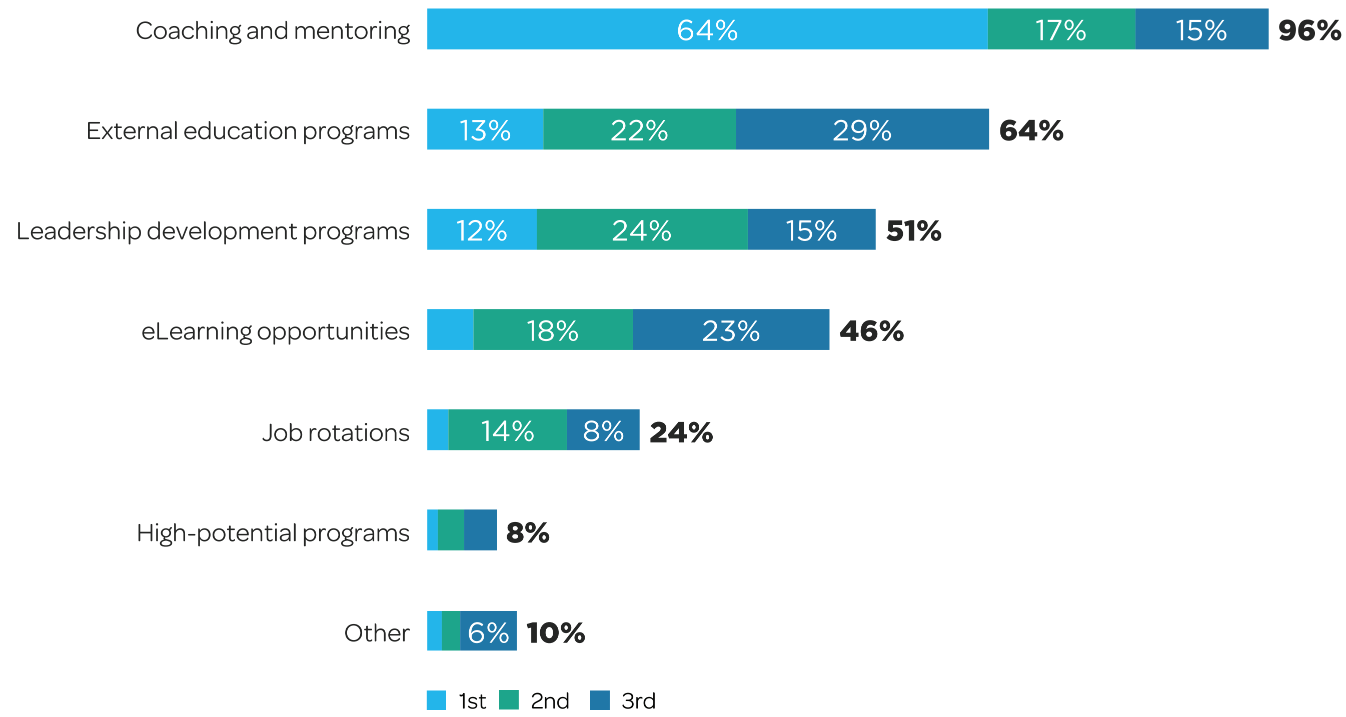
Top Tools to Develop Talent

Firms have a wide range of high-touch strategies and high-tech tools at their disposal to help employees work to their full potential.

On the high-touch end of the spectrum, most firms are using coaching and mentoring for employee development, with almost two-thirds of firms identifying this as their most-used tool.

Other high-touch strategies, such as external education programs and leadership development programs still ranked highly (second and third place), but declined year-over-year, perhaps reflecting the difficulty employees had finding the time to do much beyond immediate work duties or the lack of investment in employee programs. This can also be reflected in job rotations declining five percentage points year-over-year.

High-tech tools were used moderately, as the utilization of e-learning opportunities remained relatively flat at 46%. Firms may find greater use of high-tech tools beneficial for talent development as they can better meet individuals where and when they want to learn and track goals and milestones to measure progress and success.

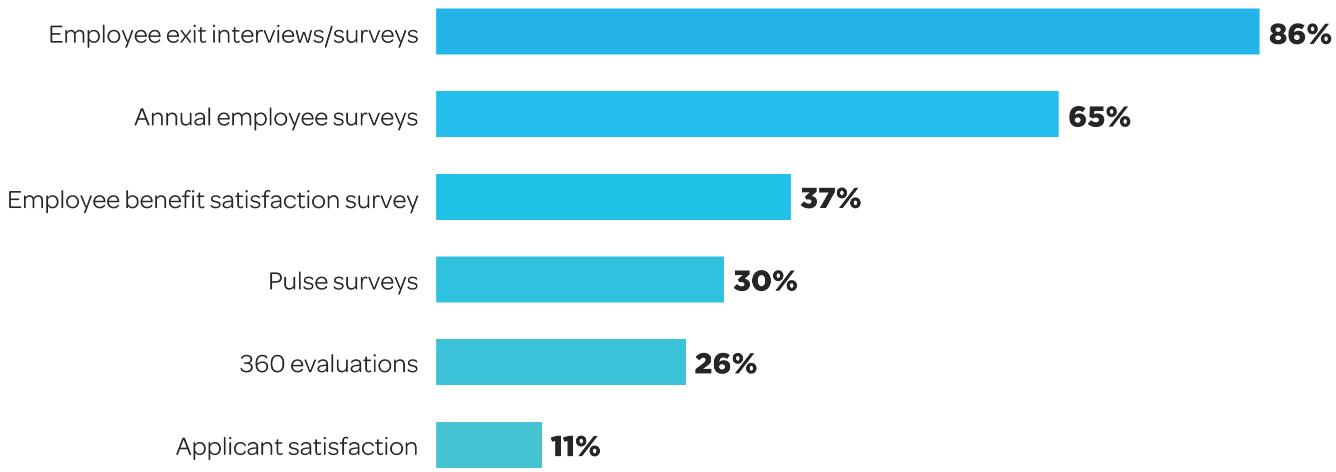


Employee Engagement Surveys

In a year challenged by workforce disruption and turnover, firms utilized employee engagement surveys to a higher degree to help diagnose and address issues. The use of all methods was up, with the exception of 360 evaluations, down eight percentage points year-over-year. Not surprisingly, employee exit interviews/surveys remained on top, growing five points.

The use of annual employee surveys and shorter, more frequent pulse surveys both grew, by 10 and eight points, respectively, as firms increasingly see the value in collecting a wide range of engagement data at different points in time.

Greater utilization of engagement surveys allows firms to stay on top of employee engagement metrics to better react with agility when they need to pivot in a changing business climate, as well as predict future staffing and development needs.



46%

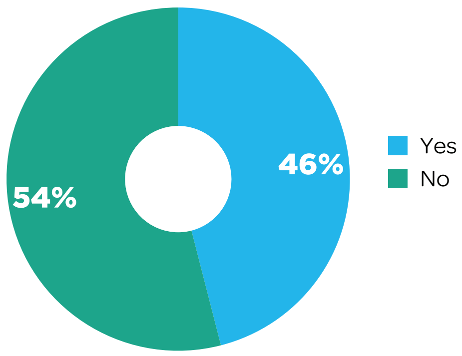
+2

Succession Planning

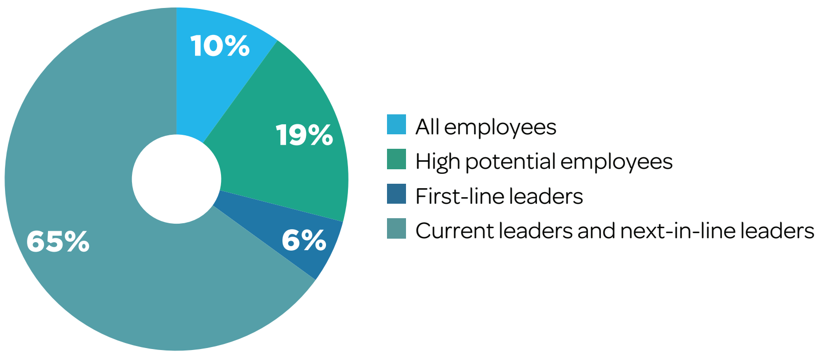
Overall succession planning experienced an uptick, up two percentage points year-over-year, and firms are expanding succession planning to cover more employees. In fact, 10% of firms include all employees in these efforts, up three points over the previous year, indicating firms increasingly recognize the value of junior-level staff and are giving them more formal opportunities to grow.

Large and medium-sized firms lead the growth in succession planning expansion to all employees, growing their efforts significantly year-over-year.

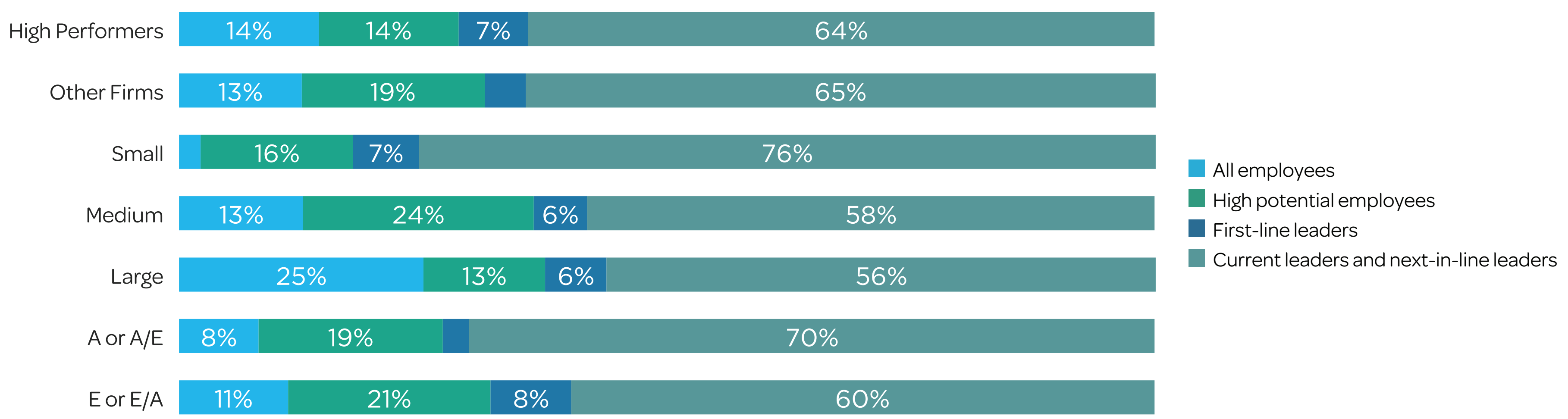
Succession Planning



Who Succession Planning Applies to at Firm



Who Succession Plan Applies to at Firm

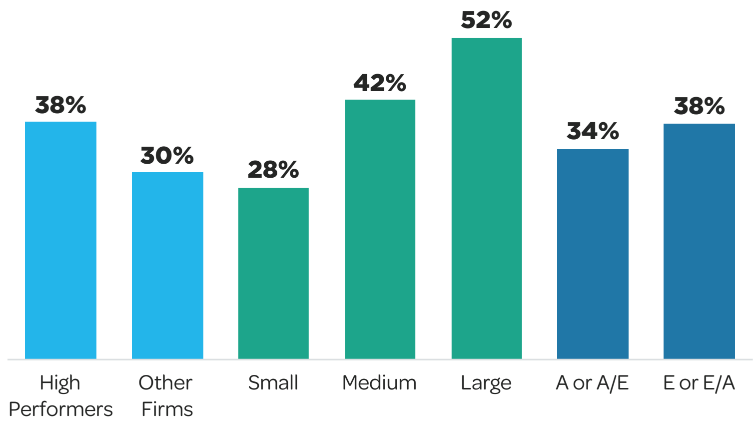


Career Development Planning

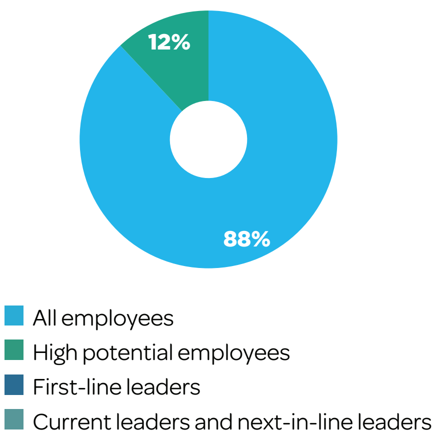
Another tool firms are utilizing to engage talent is formal career development plans, whose use grew nearly four percentage points compared to the previous year. High performers, medium and large-sized firms saw the biggest growth, up 14, 13 and eight points, respectively.

Firms are not only using career development plans to a greater degree, they also are becoming more inclusive with the opportunity, increasingly applying career development planning to all employees, up six percentage points year-over-year. This was generally consistent across all sizes of firms, but particularly so among large firms.

Firms with Career Development Plans



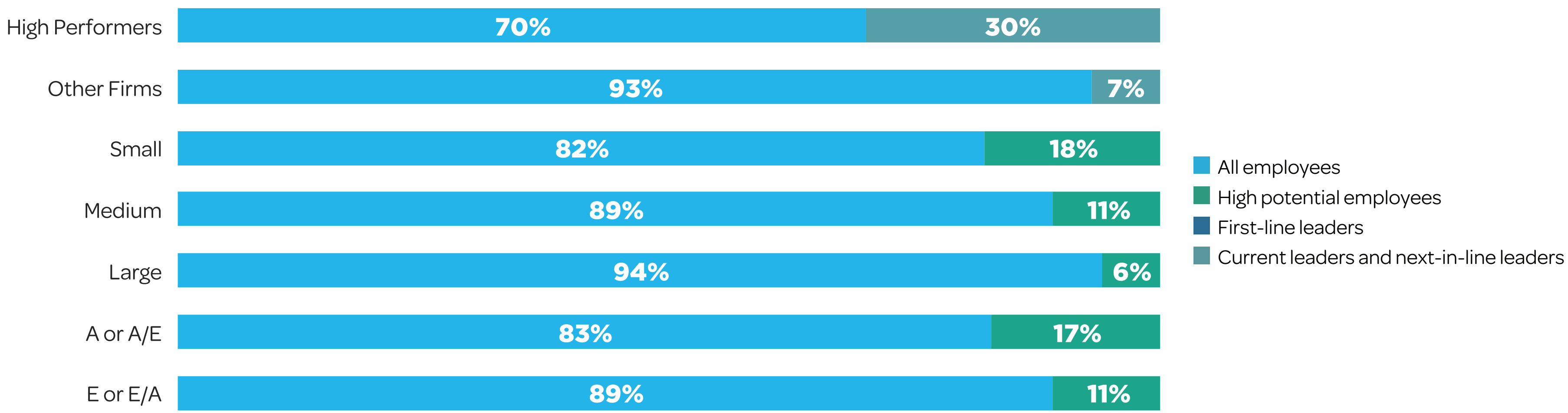
Career Development Plan Application



32.4%

+3.9

Career Development Plan Application – by Size/Type of Firm



23.3%

+10.9

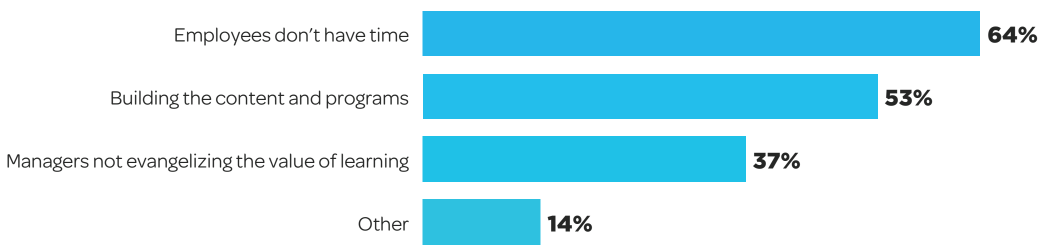
Learning Management Systems

Another area garnering more focus from firms was onboarding formal learning management systems (LMS) to help create, deliver and track the professional skills development of employees. LMS use increased by 11 percentage points year-over-year.

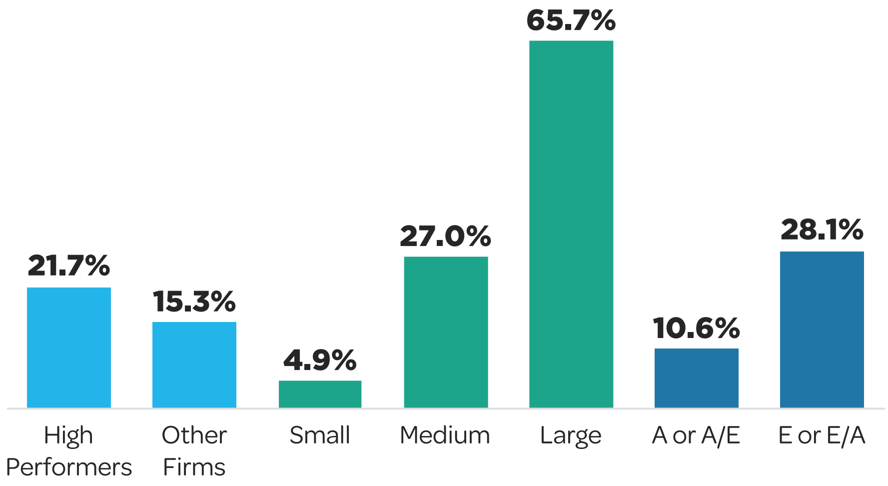
Although overall challenges to adopting learning management systems largely declined, more firms identified managers not evangelizing the value of learning as an increasing challenge. Firms would be well-served to provide front-line managers with data and insights proving the positive impact of these tools and programs on employee and firm-wide success.

As employees use an LMS to enhance their skills, firms will be in a better position to build out and manage their skills repository. As a result, they can better identify skills gaps and select the right teams for upcoming projects.

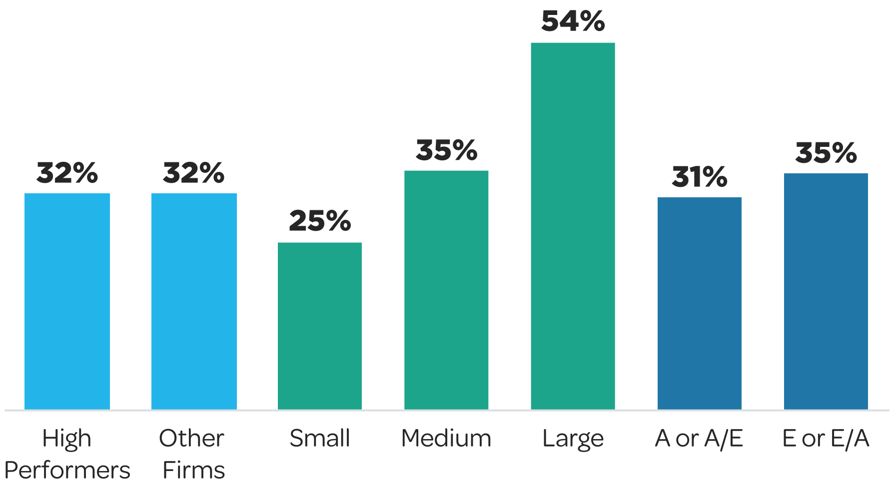
Top Challenges with Adoption of LMS



Learning Management System Possession



Firms with a Skills Repository



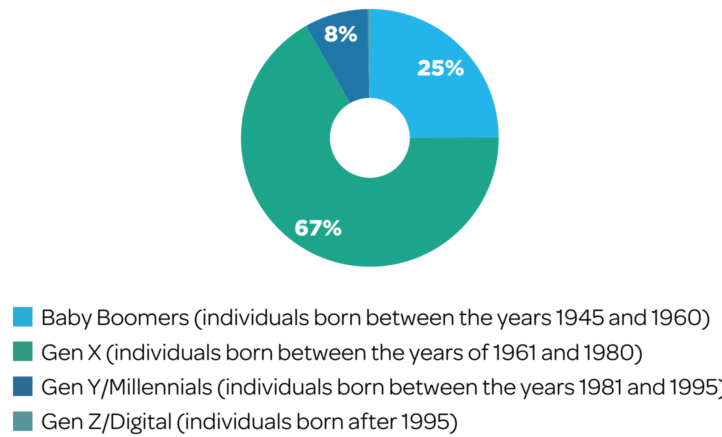
Levels of Management by Generation

Generation Z (those born after 1995) are making greater inroads into the workforce, especially among small and medium-sized firms (up seven and four points, respectively) versus large firms, which are holding flat. This may be attributed to small and medium-sized firms providing greater connected employee relationships due to their smaller size – a benefit that those new to the workforce value.

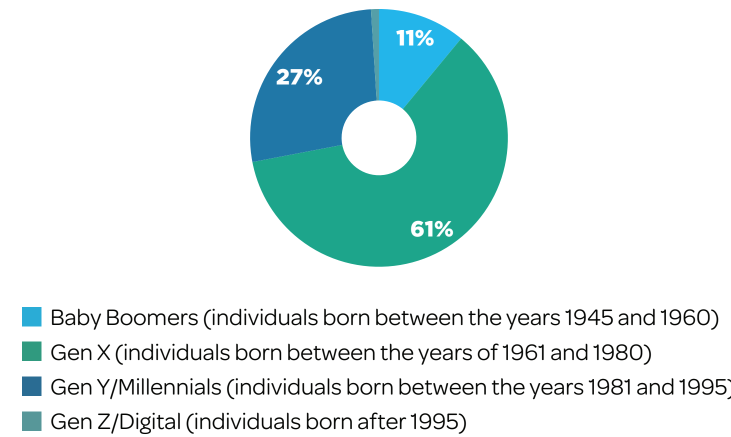
The generational composition of top-level management showed declines in Baby Boomers (born between 1945 and 1960) down three points and corresponding growth among Gen X staff (born between 1961 and 1980), up four points. Middle-level management showed a similar trend, with Baby Boomers decreasing to 11% from 12% and Gen Y/Millennials growing to 27% of middle management positions. The generational mix in lower-level management remained flat, though there was a slight uptick in the percentage of Baby Boomers in these roles, suggesting that retired individuals are dipping their toes back in the workforce waters.

To attract younger talent, firms will need to adjust their culture to be more inclusive, connected and tech-savvy while also providing leaders opportunities based on skill and interest, not just age or number of years in the business. Workplace preferences (e.g., flexibility, greater work/life balance, mentorship), which differ from older generations, will need to be addressed.

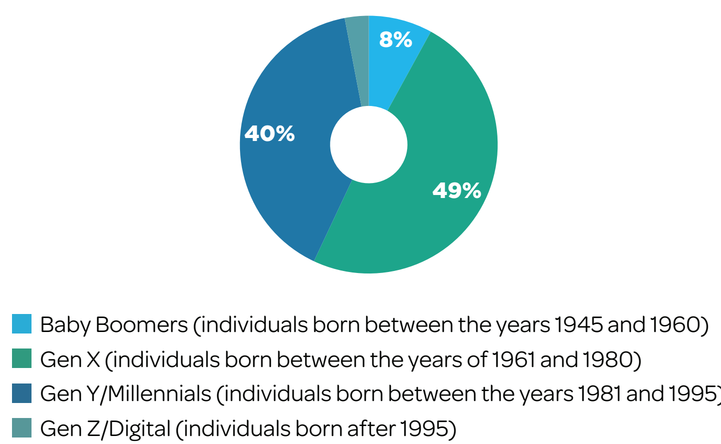
Top-Level Management by Generation



Middle-Level Management by Generation



Lower-Level Management by Generation

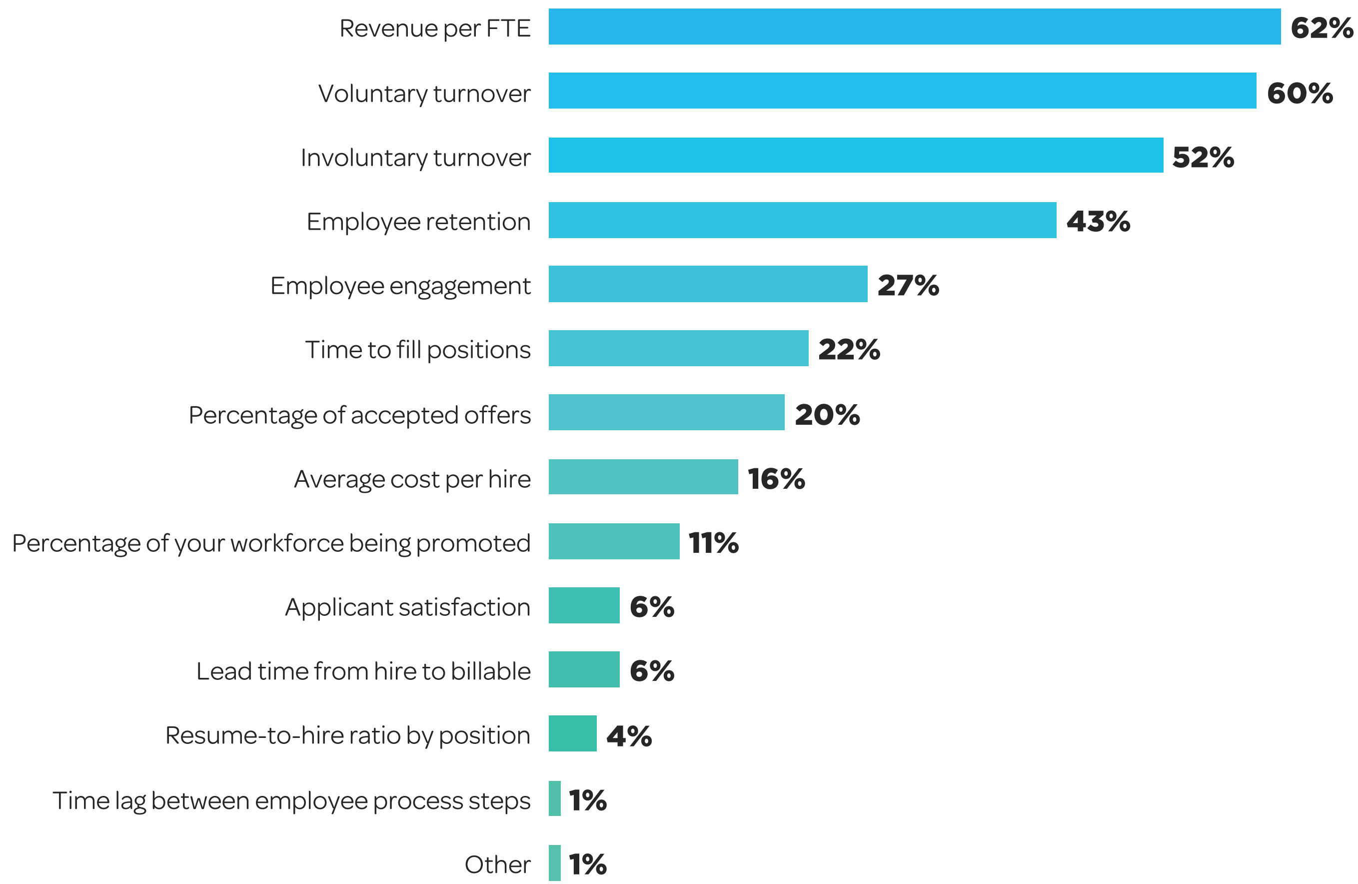


Human Capital Management KPIs

Currently, firms are spending more time tracking employee management KPIs, as well as talent acquisition KPIs like average cost per hire, but there are some missed opportunities for KPIs that can facilitate some significant improvements in hiring.

One area of opportunity is tracking more KPIs focused on the job application process. Firms should start to pay more attention to what the entire hiring process looks like from an applicant's point of view – from how applicants learn about open positions, to the resume submission and interview processes, to the time it takes to receive an offer and get onboarded.

The likelihood of a candidate accepting an offer can be influenced by the ease and engagement of the hiring process. Tracking such metrics gives firms an opportunity to receive valuable feedback to help them improve.



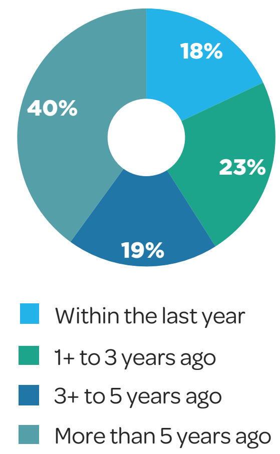
Use of Human Capital Management Solutions

Overall, utilization of Human Capital Management (HCM) solutions improved by four percentage points from the previous year.

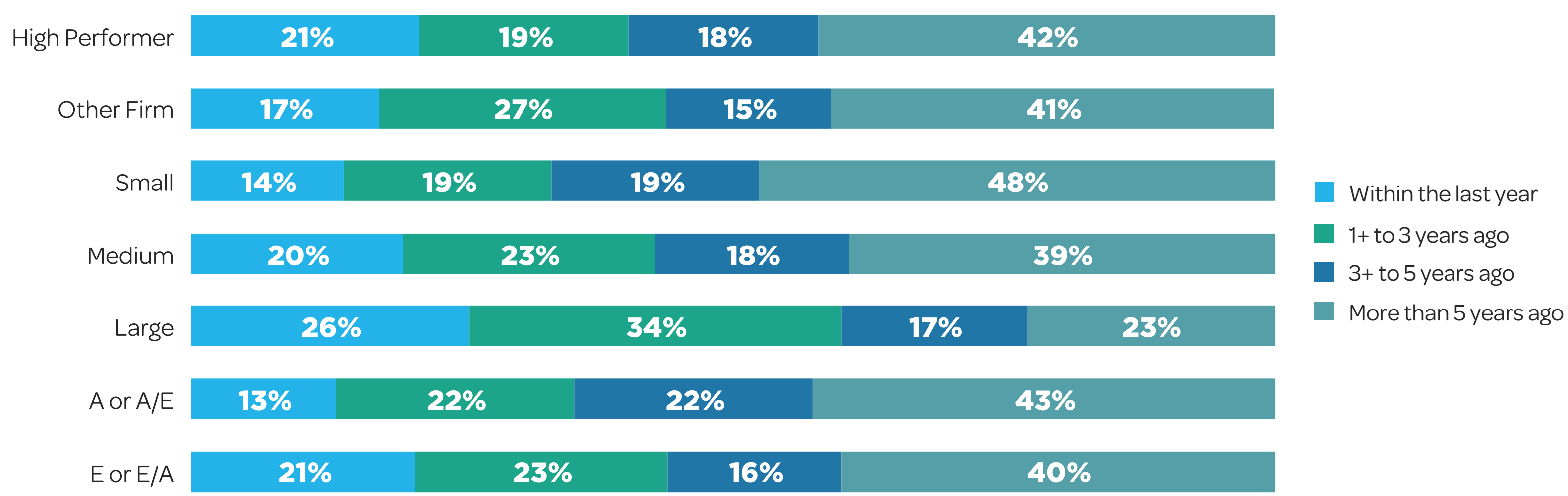
However, despite the year-over-year increase in solutions usage, nearly 30% of firms indicate they do not use any HCM tools. Of those using a tool, 60% indicated their solution has not been updated or replaced in more than three years, which is largely unchanged in the last year.

Large businesses tend to place a greater emphasis on technology use and tend to be more active implementing HCM upgrades or replacements, with roughly 40% utilizing tools that have not been updated in at least three years. When looking at opportunities to be more competitive in the market, firms need to focus on not only having a solution in place to streamline the talent acquisition and management processes, but it also needs to be maintained and updated regularly to improve efficiencies.

Last HR Solution Modification



Last HR Solution Modification – by Size/Type of Firm

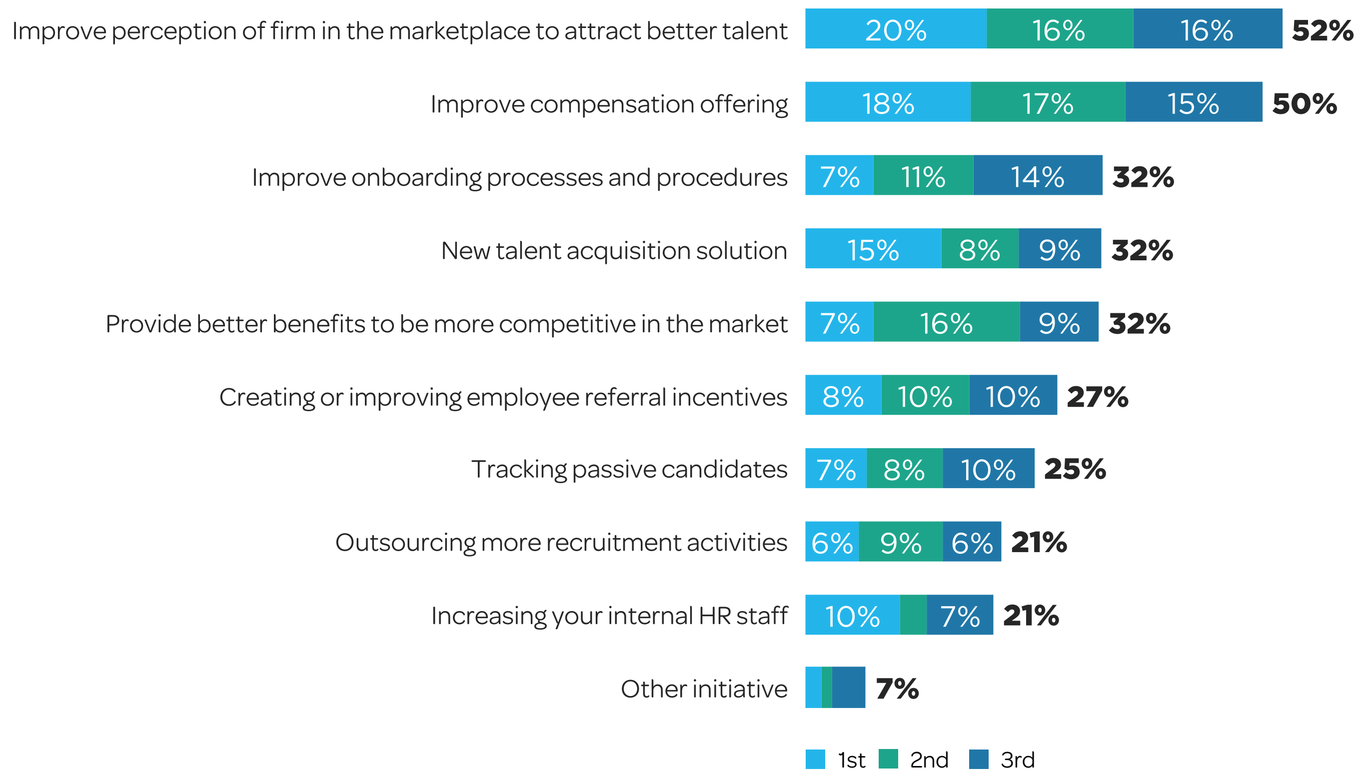


Top Talent Acquisition Initiatives

Firms were asked to identify the initiatives they plan to undertake over the next three years to improve talent acquisition. While the top initiatives remained the same, the need to provide better benefits, improve compensation and improve employee referrals grew year-over-year by 10, seven and four percentage points, respectively.

While growth in the use of these initiatives is encouraging and should help firms meet their staffing goals, they may not be as effective in reaching younger generations (Gen Z and Gen Y) who may focus more on company values such as the firm's culture, work-life balance benefits or job flexibility. To attract these candidates, firms may want to modify how they are perceived in the industry to highlight more about who they are and not just what they do.

The reduced tracking of passive candidate KPIs may also reflect missed opportunities to better compete for talent. A more aggressive approach to passive candidates through social media outreach, employee referral programs and other engagement methods will start to build relationships – a necessary first step in luring a passive candidate away from their current employer.

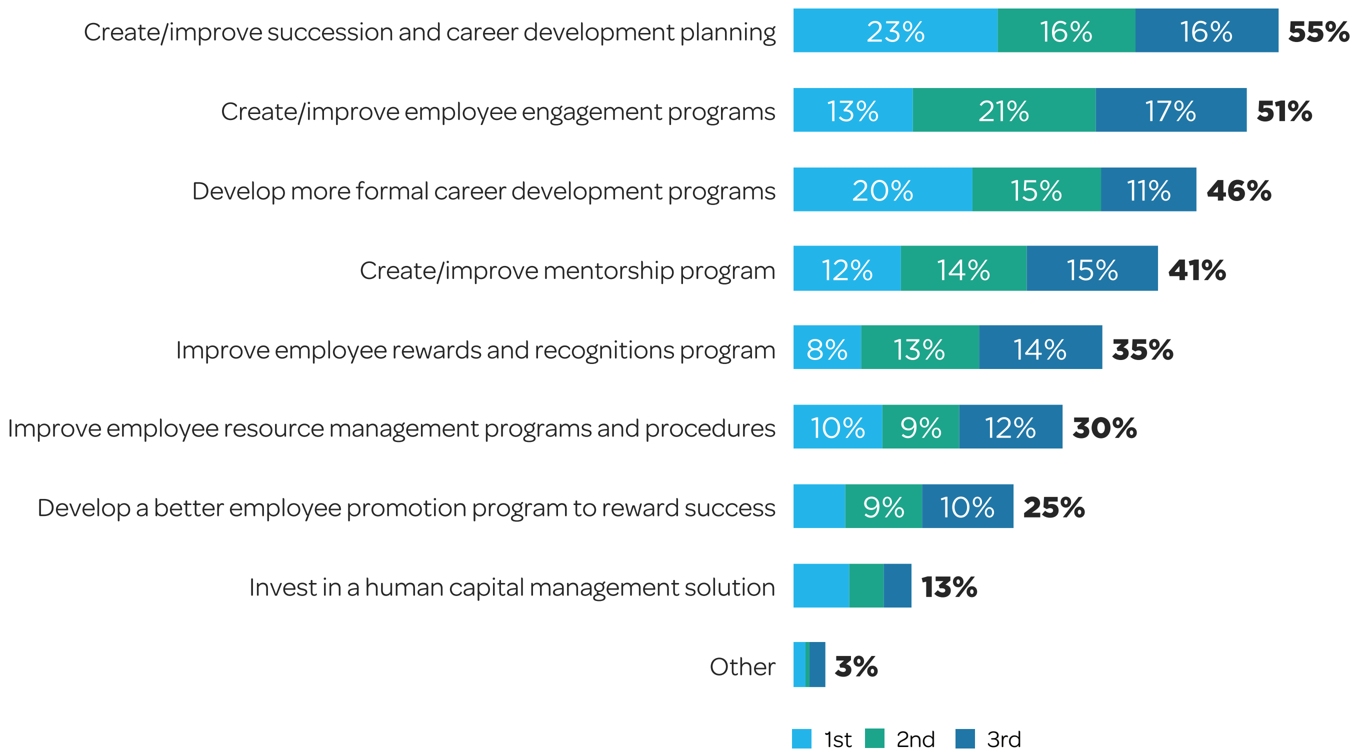


Top Initiatives for Managing Talent

As the candidate market continues to heat up and salaries increase, firms can't afford to lose employees if they want to achieve their growth and revenue goals. This year, more firms identified initiatives to create or improve employee engagement programs and improve employee rewards and recognitions programs; rising nine and 10 percentage points, respectively.

A growing number of firms invested in career development and succession planning. While still ranked highly, the importance of this planning as a top talent management initiative decreased year-over-year.

Given the clear, resounding theme of the present and immediate future is employee management and retention, firms may need to reconsider their budget for Human Capital Management (HCM) solutions in order to support the growing need to devote more time and resources to this key area of their business operations.



Human Capital Management

Talent acquisition and management are significant challenges for A&E firms in every area of the business and the notion of what employees want in an employer is evolving. Firms that can successfully differentiate their culture and employ the right tools and technology to enhance their HCM efforts will be poised to come out on top.

Traditionally, Human Resources was viewed as a less important or extraneous business process that was difficult to automate and measure. Today, savvy A&E firms are taking a much closer look at metrics spanning the entirety of Human Capital Management – from the time a new job is posted to the point where an employee leaves the company and every stage in between.

Human Capital Management data allows firms to move beyond simply checking the "exit interview" box. It can provide powerful insights that inform resource utilization, process improvement, financial projections and more.

Firms need to recognize that Human Capital Management practices and technology are evolving at a rapid pace. With more than 25% of respondents indicating they are not using any HR management solution, there is a clear opportunity to improve the overall talent experience through technology. What worked in the past to attract, manage, develop and retain Baby Boomer and Gen X employees is not likely to be effective with the younger generations entering the field and looking for opportunities to grow.

SUMMARY

The favorable market conditions and growing project pipelines have teed up a positive outlook for the coming years. Continued capitalization of this growth will require firms to keep a sharp focus on addressing talent gaps, utilizing technology to increase efficiency, and being strategic in the opportunities they pursue.

With a stronger focus on emerging areas of business development, A&E firms must shore up gaps and advance delivery in project management, human resources and financial management to meet new business needs.

Employee recruitment, retention and development have become more important than ever as the increased pace of project wins and growing project workloads collide with a changing workforce model. Accordingly, project management and execution functions are feeling stretched, challenged by both the quantity of projects as well as the bench strength to deliver.

Firms continued to refine financial strategies to reduce project delivery cost and drive topline growth.

Investment in technology tools – including more effective use of existing tools – can help firms manage and execute projects more efficiently, align business development and financial processes, and better manage resources.

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
KPIS/BALANCE SHEET DETAILS								
KEY PERFORMANCE INDICATORS								
Net Revenue Per Employee	$148,465	$171,122	$138,769	$140,000	$149,216	$158,797	$149,808	$149,274
Total Revenue Per Employee	$186,419	$211,155	$184,718	$183,873	$183,208	$211,155	$223,120	$177,181
Operating Profit on Net Revenue	12.8%	23.9%	7.3%	11.1%	13.2%	14.6%	12.0%	13.1%
Operating Profit on Total Revenue	11.3%	20.2%	7.9%	9.5%	11.9%	11.9%	11.0%	9.6%
Utilization Rate	58.5%	59.3%	57.5%	60.9%	58.1%	57.3%	57.5%	58.8%
Net Labor Multiplier	2.99	3.41	2.79	2.85	3.03	3.04	2.99	2.99
Total Payroll Multiplier	1.74	2.01	1.61	1.75	1.73	1.75	1.75	1.73
Overhead Rate	160.4%	157.0%	165.0%	158.0%	161.0%	162.0%	165.0%	157.0%
Staff Growth/Decline	3.2%	7.1%	0.9%	0.0%	4.0%	3.8%	2.0%	3.2%
Employee Turnover	13.6%	14.1%	14.4%	11.9%	14.7%	14.4%	13.9%	13.4%
Total Employee Cost	$105,705	$99,778	$108,176	$103,154	$107,056	$112,268	$104,513	$107,685
Net Fixed Assets Per Employee	$7,394	$8,040	$7,155	$4,404	$7,895	$11,018	$6,139	$7,512
Average Collection Period in Days (Median)	76.81	70.59	82.04	75.75	82.04	67.76	82.19	73.38
Win Rate	49.2%	50.2%	51.4%	50.0%	50.0%	42.7%	40.8%	51.7%
BALANCE SHEET RATIOS								
Work-in-Process per Employee	$8,132	$9,013	$7,978	$7,713	$7,870	$12,342	$9,329	$6,383
Total Assets per Employee	$94,529	$96,675	$93,069	$93,702	$93,234	$96,054	$109,761	$90,331
Total Liabilities per Employee	$36,273	$31,639	$36,946	$27,041	$34,296	$49,516	$50,240	$28,423

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
BALANCE SHEET RATIOS (CONTINUED)								
Total Equity per Employee	$52,996	$61,282	$50,601	$55,493	$52,625	$52,121	$56,305	$53,317
Return on Assets	18.4%	29.0%	7.1%	19.9%	17.8%	18.9%	13.6%	21.0%
Return on Equity	25.6%	41.4%	8.5%	23.0%	25.7%	26.0%	24.0%	28.8%
Backlog - End of Year per Employee	$132,283	$140,681	$132,068	$100,000	$132,283	$181,033	$154,335	$129,741
Backlog in Months	8.75	8.61	8.92	7.38	9.29	9.94	8.26	9.32
Current Ratio	3.34	3.71	2.93	4.36	3.16	2.25	2.64	3.76
Debt to Equity Ratio	0.61	0.52	0.67	0.49	0.66	0.77	0.77	0.55
INCOME STATEMENT DETAIL (PER EMPLOYEE)								
TOTAL REVENUE								
Total Revenue per Employee	$186,419	$211,155	$184,718	$183,873	$183,208	$211,155	$223,120	$177,181
DIRECT EXPENSES								
Consultants per Employee	$28,451	$20,931	$31,332	$28,183	$31,079	$25,150	$60,259	$16,911
Bad Debt per Employee	$526	$513	$557	$393	$647	$544	$1,235	$513
All Other Direct Expenses per Employee	$1,824	$1,362	$2,223	$3,209	$1,698	$763	$4,280	$1,154
Total Direct Expenses per Employee	$39,065	$24,132	$47,111	$39,215	$35,638	$45,406	$73,389	$24,784
NET REVENUE								
Net Revenue per Employee	$148,465	$171,122	$138,769	$140,000	$149,216	$158,797	$149,808	$149,274
DIRECT LABOR								
Direct Labor per Employee	$50,654	$49,186	$51,414	$51,220	$49,467	$52,817	$52,215	$50,677

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
GROSS PROFIT								
Gross Profit per Employee	$105,766	$118,836	$97,119	$105,761	$103,299	$109,331	$106,560	$106,897
INDIRECT LABOR								
Vacation, Holiday, Sick & Personal per Employee	$8,998	$8,678	$9,176	$8,929	$8,890	$9,240	$9,269	$9,040
Marketing per Employee	$5,152	$5,602	$5,108	$4,119	$5,630	$6,184	$7,154	$4,552
All Other Indirect Labor per Employee	$21,750	$20,568	$22,623	$21,375	$21,557	$22,312	$21,249	$22,423
Total Indirect Labor per Employee	$35,259	$33,200	$36,190	$34,402	$35,112	$36,803	$35,783	$35,173
LABOR-RELATED EXPENSES								
Statutory Taxes per Employee	$6,838	$6,746	$6,905	$6,603	$6,880	$6,860	$7,240	$6,749
Workers' Comp. per Employee	$228	$205	$251	$268	$202	$271	$202	$232
Group Health, Life, Etc. per Employee	$7,085	$6,840	$7,250	$6,716	$7,149	$7,769	$6,688	$7,432
401(k) Match, Pension Plan, Etc. per Employee	$2,729	$2,692	$2,766	$2,691	$2,778	$3,162	$2,979	$2,744
All Other Labor-Related Expenses per Employee	$1,225	$1,139	$1,347	$1,500	$1,086	$1,719	$1,347	$1,161
Total Other Labor-Related Expenses per Employee	$18,035	$17,780	$18,221	$17,179	$18,486	$19,913	$17,846	$18,231
OTHER STAFF EXPENSES								
Professional Licenses, Registrations, Dues per Employee	$743	$692	$770	$697	$753	$807	$698	$753
MARKETING EXPENSES (NON-LABOR)								
Marketing Expenses per employee (marketing and business development expenses including materials, conference expenses, travel, etc.)	$1,173	$1,304	$1,133	$1,333	$1,186	$932	$1,976	$848

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
CORPORATE EXPENSES								
Professional Liability Insurance per Employee	$1,923	$1,835	$1,986	$2,094	$1,851	$1,909	$2,251	$1,815
Other Business Taxes per Employee	$433	$392	$440	$532	$350	$525	$519	$427
All Other Corporate Expenses per Employee	$2,155	$2,050	$2,158	$2,545	$1,945	$1,518	$2,654	$1,860
Total Corporate Expenses per Employee	$4,688	$4,595	$4,701	$5,141	$4,622	$4,288	$5,321	$4,354
TOTAL OVERHEAD								
Total Overhead Expenses per Employee	$78,813	$75,770	$80,591	$78,402	$77,714	$84,489	$83,517	$76,970
OPERATING PROFIT								
Operating Profit (Loss) per Employee	$22,000	$39,499	$14,320	$21,635	$20,420	$23,902	$23,099	$21,635
INTEREST, BONUS, OTHER								
Interest-Net per Employee	$194	$91	$213	$152	$167	$261	$140	$196
Bonuses per Employee	$7,911	$13,012	$6,316	$6,838	$8,395	$9,443	$8,751	$7,761
Other (Income) or Expense	-$3,547	-$384	-$11,730	-$10,907	-$11,180	-$627	-$14,686	-$724
PRE-TAX INCOME (LOSS)								
Pre-Tax Income (Loss) per Employee	$19,424	$27,421	$13,459	$21,449	$19,476	$15,832	$20,882	$18,810
TAXES								
Taxes per Employee	$778	$747	$781	$1,366	$552	$720	$542	$842
NET PROFIT								
Net Profit (Loss) per Employee	$16,628	$27,288	$11,465	$17,663	$16,530	$13,667	$20,163	$16,297

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
BALANCE SHEET DETAIL (PER EMPLOYEE)								
CURRENT ASSETS								
Cash per Employee	$16,701	$18,128	$15,810	$20,415	$15,810	$13,711	$20,999	$15,881
Accounts Receivable per Employee	$38,500	$38,611	$38,329	$38,121	$39,511	$35,925	$49,876	$35,522
Work-In-Process per Employee	$8,132	$9,013	$7,978	$7,713	$7,870	$12,342	$9,329	$6,383
Prepaid Expenses per Employee	$2,704	$3,154	$2,519	$2,008	$2,823	$3,814	$3,283	$2,523
Other Current Assets per Employee	$1,165	$938	$1,477	$938	$892	$1,857	$1,172	$938
Total Current Assets per Employee	$73,218	$76,022	$70,450	$73,163	$73,274	$73,523	$89,644	$66,861
FIXED ASSETS								
Fixed Assets (except Goodwill) per Employee	$26,067	$25,942	$26,067	$22,005	$26,418	$32,694	$22,137	$26,488
Depreciation per Employee	-$17,653	-$16,330	-$18,795	-$15,056	-$18,773	-$19,646	-$17,452	-$17,705
Goodwill (net of amortization) per Employee	$3,574	$3,516	$3,656	$3,181	$2,757	$4,859	$2,667	$3,904
Total Fixed Assets per Employee	$10,812	$11,434	$10,621	$9,142	$9,503	$14,853	$8,633	$11,208
OTHER LONG-TERM ASSETS								
Long-Term Notes/Loans Receivable per Employee	$0	$240	$0	$0	$0	$233	$0	$0
Other Long-Term Assets per Employee	$401	$518	$401	$0	$776	$1,159	$243	$642
Total Other Long Term Assets per Employee	$1,187	$2,068	$1,091	$247	$1,443	$2,206	$429	$1,390
TOTAL ASSETS								
Total Assets per Employee	$94,529	$96,675	$93,069	$93,702	$93,234	$96,054	$109,761	$90,331

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
LIABILITIES & STOCKHOLDER'S EQUITY								
ACCOUNTS PAYABLE								
Accounts Payable - Consultants per Employee	$6,585	$3,106	$8,510	$4,684	$7,046	$7,395	$17,701	$2,467
Accounts Payable - Vendors per Employee	$1,848	$1,495	$1,990	$2,195	$1,495	$2,415	$1,962	$1,620
Total Accounts Payable per Employee	$6,433	$4,634	$7,967	$5,067	$5,629	$8,127	$17,461	$3,739
ACCRUED EMPLOYEE EXPENSE								
Accrued Employee Salaries per Employee	$2,638	$2,394	$2,844	$2,572	$2,792	$2,167	$2,816	$2,394
Accrued Employee Vacation, Sick, Etc. per Employee	$3,528	$3,273	$3,630	$3,567	$3,301	$4,219	$3,419	$3,571
Other Accrued Employee Expense per Employee	$1,829	$1,523	$1,851	$714	$2,135	$2,784	$2,146	$1,351
Total Accrued Employee Expenses per Employee	$6,299	$5,785	$6,529	$4,969	$6,203	$8,761	$5,903	$6,482
OTHER CURRENT LIABILITIES								
Line-of-Credit and Short-Term Notes Outstanding per Emp.	$3,787	$3,264	$4,310	$3,750	$3,001	$5,094	$5,085	$3,274
Current Taxes per Employee	$345	$257	$348	$321	$360	$411	$428	$321
Other Current Liabilities per Employee	$4,452	$5,340	$4,017	$2,181	$5,481	$7,816	$4,663	$4,346
Total Other Current Liabilities per Employee	$7,904	$8,462	$7,768	$5,034	$8,178	$13,468	$10,496	$6,593
TOTAL CURRENT LIABILITIES								
Total Current Liabilities per Employee	$22,783	$21,156	$23,957	$16,500	$24,230	$32,508	$35,827	$18,496
LONG-TERM LIABILITIES								
Long-Term Debt per Employee	$4,976	$4,252	$6,375	$4,154	$5,109	$6,984	$4,976	$4,599
Deferred Taxes per Employee	$0	$0	$0	$0	$0	$903	$0	$6
Other Long-Term Liabilities per Employee	$474	$239	$918	$0	$973	$1,873	$1,019	$430

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
TOTAL LIABILITIES								
Total Liabilities per Employee	$36,273	$31,639	$36,946	$27,041	$34,296	$49,516	$50,240	$28,423
STOCKHOLDERS' EQUITY								
Stock & Additional Paid-In Capital per Employee	$1,851	$4,515	$1,125	$952	$1,628	$8,400	$952	$3,201
Distribution/Dividends - Current Year Only per Employee	-$7,519	-$18,553	-$4,162	-$9,832	-$6,137	-$13,009	-$10,375	-$8,620
Principal's Equity - Long-Term Notes per Employee	-$5,780	-$4,216	-$8,001	-$5,159	-$4,333	-$13,514	-$2,184	-$6,346
Previous Years Retained Earnings per Employee	$42,615	$44,331	$41,618	$47,719	$41,643	$36,615	$40,996	$44,368
Current Net Profit (Loss) per Employee	$19,092	$27,251	$14,493	$21,943	$18,964	$16,508	$21,150	$17,207
Other per Employee	-$2,613	-$619	-$5,840	-$1,929	-$1,961	-$5,523	-$9,622	-$1,961
Total Stockholders' Equity per Employee	$53,236	$61,282	$51,391	$55,793	$52,625	$52,121	$56,817	$53,317
Total Liabilities & Stockholders' Equity per Employee	$91,644	$96,675	$88,249	$82,170	$93,234	$95,048	$104,722	$87,639
SECTION METRICS								
BUSINESS DEVELOPMENT METRICS								
Net Revenue Growth Forecast	17.6%	14.6%	22.8%	14.6%	21.6%	14.2%	18.8%	17.5%
Win Rate	49.2%	50.2%	51.4%	50.0%	50.0%	42.7%	40.8%	51.7%
Capture Rate	48.5%	45.2%	50.0%	50.0%	51.1%	29.9%	35.3%	50.0%

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
BUSINESS DEVELOPMENT METRICS								
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client A	19%	17%	21%	27%	15%	10%	21%	18%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client B	9%	9%	10%	12%	8%	6%	10%	9%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client C	7%	7%	8%	9%	6%	4%	7%	7%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Combined	35%	33%	38%	49%	28%	19%	38%	34%
PROJECT MANAGEMENT METRICS								
What percentage of your firm's current projects are being reported as on or under budget? (Average)	67.8%	72.9%	63.3%	68.1%	67.0%	69.7%	64.3%	69.3%
What percentage of your firm's current projects is being reported as on or ahead of schedule? (Average)	58.5%	63.5%	55.5%	58.1%	57.4%	64.3%	50.6%	62.5%
Firms that complete internal project performance evaluations (Mean)	58.7%	58.8%	58.8%	53.0%	60.5%	75.0%	50.0%	61.5%
Firms measuring client satisfaction (Mean)	39.0%	28.1%	30.6%	32.8%	42.1%	48.7%	34.7%	40.7%
HUMAN CAPITAL MANAGEMENT METRICS								
Staff Growth/Decline	3.2%	7.1%	0.9%	0.0%	4.0%	3.8%	2.0%	3.2%
Employee Turnover	13.6%	14.1%	14.4%	11.9%	14.7%	14.4%	13.9%	13.4%
Voluntary Turnover	12.1%	12.3%	12.1%	11.1%	12.6%	12.7%	12.7%	11.9%
Involuntary Turnover	2.1%	1.9%	2.3%	0.0%	3.2%	1.6%	0.8%	2.2%
Average Time to Fill Position	31-60 days	31-60 days	31-60 days	31-60 days	31-60 days	31-60 days	31-60 days	31-60 days

Statistics at a Glance

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL (1-50 EMP)	MEDIUM (51-250 EMP)	LARGE (250+ EMP)	ARCHITECTURE OR A/E	ENGINEERING OR E/A
FTE BREAKDOWN BY CATEGORY								
Technical and Professional	43	48	42	23	61	272	29	48
Marketing and Business Development	2	2	2	1	3	13	2	2
Financial/Accounting	2	2	2	1	3	11	2	2
Technology/IT	1	2	1	1	1	6	1	1
Human Resources	1	1	1	1	1	5	1	1
Administrative or Clerical	2	2	2	1	3	17	1	2
Other Executives	2	3	2	2	3	6	3	2
Other Employees	1	2	1	1	1	7	1	2

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- Deliver projects on time and under budget
- Manage projects and firm-wide information
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