# Deltek. Clarity

# Architecture & Engineering Industry Study

42<sup>nd</sup> Annual Comprehensive Report

In collaboration with:







Society for Marketing Professional Services



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# Introduction

The 42<sup>nd</sup> Annual Deltek Clarity Architecture & Engineering Study (A&E) revealed that many businesses were able to meet the challenges raised by the pandemic by focusing on the fundamentals, staying close to clients and managing costs to sustain profitability.

The American Institute of Architects reported that more than eight in 10 firms had applied for federal PPE loans in 2020, and the Architectural Billings Index experienced its largest single-month decline in 25 years. A&E firms responded to the pandemic by intensifying their focus on servicing existing clients and contracts. While some challenges linger, the outlook for 2021 is positive.

The necessary move to remote operations revealed both weaknesses and opportunities in the industry. Changes in workplace policy and increased use of technology will continue to open up new possibilities in coming years. Firms plan to address ongoing challenges associated with out-of-date processes and inexperienced talent, while reevaluating software solutions. More business operations will be digitized, and cybersecurity will remain a top priority. A&E firms have continued migrating applications to the cloud and plan to step up that effort to modernize operations.

Key challenges include:

• Implementing technology improvements and recognizing that changes can be phased in now while long-term strategic plans are developed.

- Branding the industry as leaders in best-in-class technology to improve recruiting, retention and reputation.
- Continuing engagement and strategic outreach to clients and prospects in an ever-evolving environment.
- Increasing focus on the fundamentals to maintain financial strength.
- Developing the discipline of project management to better integrate the function into the overall needs of the business.

The 42<sup>nd</sup> Annual Deltek Clarity Architecture & Engineering Study includes data from a variety of firms from all sizes and North American geographies. Participants completed the survey based on 2020 fiscal data. Unless otherwise noted, values in this report use the median value, 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 own 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.

Respondents to the Study are optimistic about opportunities and growth potential in coming years.

# **About This Study**

For the last 42 years, Deltek has conducted an annual survey of firms in the Architecture and Engineering industry to identify key performance indicators, market conditions and industry trends. This leading market trends report is developed in close collaboration with industry organizations and is utilized by thousands in the industry.

#### **Firm Type**

The umbrella term of Architecture and 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 architecturedominant firms that also provide engineering services.
   A/E firms are also known in the industry as "big A, little E" firms. In this report, 41% of participants were in the Architecture 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, 50% were Engineering or E/A firms.
- "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, 9% were in this category.

#### **Firm Size and Region**

The size of participating firms was diverse when measured by number of employees. Deltek defines small, medium and large in the following way: • Small: 0-50 employees (44% of participants) • Medium: 51-250 employees (43% of participants) • Large: 251+ employees (13% of participants). Participating firms have headquarters in the United States or Canada, with equitable participation from companies throughout the United States: West, Midwest, Northeast and South.

The geographical distribution of firms was as follows:

#### **United States 95%**

- -West 34%
- -Midwest 24%
- -South 18%
- -Northeast 14%
- -Washington D.C, Maryland, Virginia 5%

#### Canada 5%

#### **High Performers**

Each year, Deltek breaks out a group of high performers for additional analysis. High-performing firms are defined as having a net labor multiplier of 3.0 or higher, as well as an operating profit on net revenue of 15% or higher. High performers comprised 21% of all participants. For purposes of analysis, high performers are contrasted with all other firms.

480 companies participated in the 42<sup>nd</sup> Annual Deltek Clarity Study, representing a broad cross-section of business sizes and geographies.

# **Executive Summary**

Despite 2020's challenges, the outlook is positive as firms enter 2021 relatively well-positioned. Continuing their focus on financial fundamentals, digital transformation and project management expertise will be key to better overall performance.

A&E firms intensified their focus on servicing existing clients and contracts in 2020. As they scrambled to work remotely and meet client demands, attention to business fundamentals and key performance indicators (KPIs) increased, as both the number of KPIs monitored and the frequency of measuring performance increased.

Project management continued to be an area of both vulnerability and opportunity. Projects on or under budget dropped sharply, while projects on or ahead of schedule continued to hover in the 65% range. Long-standing project management challenges, such as inexperienced project managers and a lack of integrated tools, have a negative impact and must be remediated if firms are to succeed. The pandemic revealed new ways of working and connecting with prospects and clients that reduced costs and increased competitiveness when leveraged properly, but also removed the vital face-to-face connection to build relationships. Firms that were nimble and able to adapt fared best. Building upon these lessons can position the industry for greater prosperity going forward.

Technology investments, which were largely sidelined by small and medium-sized businesses in 2020, are expected to grow in importance. Firms expect to get back to pre-COVID plans and digitization initiatives for business operations, including continuing to migrate applications to the cloud.

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Lessons from the pandemic will continue to be adapted and applied



Firms plan to resume digitization of business operations



Recruiting will be increasingly competitive with hybrid workplaces expected to become a mainstay



Developing project management professionals and equipping them with the next generation of tools is key to success



Investment in technologies that boost operational efficiency – whether staff is in the office, on a job site, or in the built environment – is crucial to maintaining competitiveness and attracting top talent

# **Business Impact from the Global Pandemic**

The pandemic affected businesses in myriad ways, though many reported minimal impacts to existing projects. Adapting to a dispersed workforce and adjusting marketing tactics to counter the lack of in-person opportunities were specific challenges many faced. These lessons represent critical opportunities to improve go-forward operations.



# Pandemic Impact: Existing Projects

A large majority (65%) of existing projects experienced no change during the pandemic. Nearly one in four encountered delays, while 11% experienced cancellations. Scope was reduced in 12% of existing contracts. On the flip side, 14% of projects were accelerated while another 12% grew in scope.



For projects in the pipeline, most companies saw no significant impact. However, not surprisingly, commercial (57%) and hospitality (63%) markets experienced the greatest instances of delay during the pandemic period. Residential (20%) and healthcare (17%) projects saw the greatest acceleration.

#### Market Effects on Pipeline



65.0%

# Pandemic Impact: Existing Technologies and Tools

Prior to the pandemic, many firms leveraged cybersecurity, online meeting platforms and collaboration tools. Most companies were already focused on cybersecurity tools prior to 2020 to ensure the protection of networks and communications through firewalls, anti-virus and malware protection systems. Similarly, many companies were already using online meeting platforms such as Zoom, Skype and Microsoft Teams to some degree.

Less than half of firms indicated leveraging technology for talent acquisition, performance management, business automation and market intelligence early in 2020.

Meeting the operational challenges of the pandemic caused many more firms to increase investment in existing technologies or invest in new technologies to support the changing business environment, including online meeting platforms, collaboration tools, and cybersecurity solutions.



# Pandemic Impact: Future Technology/Tools Investment

Moving forward, heavier investments are expected in project management tools, along with continued emphasis on cybersecurity and cloud enablement. This will serve to improve flexibility while strengthening information security. Moving solutions to the cloud will once again be a top area of emphasis, as will business automation to drive down costs through the elimination of manual processes.





# Pandemic Impact: Top 3 Challenges

The top challenges faced by businesses in this year's Study are broken into three categories: 1) managing distributed resources, 2) streamlining processes and delivering projects remotely and 3) managing project information and tracking time spent on project tasks.

As workforces were forced into remote operations, managing dispersed resources and coordinating with clients became top concerns. One operational improvement is the rapid development of new proposals. Digital materials can be developed rapidly and delivered electronically, trimming lead times and reducing proposal costs. Effective remote collaboration, quicker turnaround times, and smoother proposal submission processes can increase the number of proposals firms can submit – positively impacting the amount of awarded projects.

Businesses expect these new ways of working to continue in some form. Taking advantage of changes that help lower costs, drive productivity and accentuate employee flexibility can result in permanent operational improvements.



# Attention to Key Performance Indicators (KPIs)

Businesses recognized that monitoring key metrics during the pandemic was an essential element in maintaining profitability. Half of the Study's respondents indicated that KPI monitoring increased during the pandemic. Only 7% decreased their KPI monitoring from previous periods. Sixteen percent reported monitoring had increased significantly, while 67% either increased slightly or stayed the same. The number of KPIs firms monitored also rose during the pandemic. Fortytwo percent of respondents indicated an increase, while only 10% indicated the number of KPIs monitored decreased, indicating firm leaders' recognition that staying on top of key metrics during a potential business downturn was extremely important.





# Pandemic Impact: Workforce Adjustment

Many Study respondents used workforce adjustments to offset the business risk of the pandemic. Salary freezes or reductions were cited by 30%, while 26% laid off employees. Eighteen percent furloughed employees, while year-end bonuses and promotions were put on hold by a combined 26%.

While a significant number of companies experienced some type of permanent or temporary reduction, some firms experienced little change or staff increases during the same period. Thirty-five percent of firms reported business as usual, with no changes to their workforce. One in five firms reported hiring full-time staff during the period, indicating a variety of experiences across the industry during the year.



# Pandemic Impact: Employee Benefits

As a result of the pandemic's demands, most firms experienced minimal challenges to productivity with a distributed workforce. Going forward, employers expect to offer more flexible work options (75%) and adopt new remote working policies (51%). Only 15% expect no change in employee benefits. Given the value placed by workers on remote and flexible work opportunities, the demand for these capabilities is likely to drive significant changes as firms compete for top talent going forward.



# SECTION ONE Technology Trends

More than half of firms struggle with prioritizing which new technologies are most applicable to their business and which will yield the greatest returns.  $\overline{\boldsymbol{\boldsymbol{>}}}$ 

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Technology adoption and deployment carried momentum through 2020. Migration to the cloud continued seemingly unfettered, as these initiatives likely were under way and supported. Firms signal that these efforts will continue into 2021.

For IT Operations leaders, cybersecurity continues to be a key challenge for firms, and they will continue to invest in infrastructure, preparedness and compliance.

Emerging technology trends expected to have the biggest impact to the business include the IoT, geolocation and augmented/ virtual reality. Fewer small and medium-sized firms identified emerging technology trends as key as they tightened focus on maintaining their core business functions. Large firms continue to indicate high impact to the business, specifically for big data and data science in which they are often already invested.

Firms envision a high degree of digital maturity on the short-term horizon, but cost and expertise are significant hurdles.

# ADDRESSING TOP THREE TECHNOLOGY CHALLENGES

**Cost of Technology.** Balance objective short-term investment criteria with the opportunity cost of delaying next-gen technology trend adoption.



**Prioritizing Technology Applicability.** Prioritize key gaps/ opportunities and then evaluate how technology can best serve the firm and its clients.



Lack of Time to Learn About Technology Trends. Dedicate an objective individual or consulting firm to evaluate which technologies can help the firm achieve its goals.



There is a perception that achieving technology advancement is costly and requires a comprehensive strategic plan. This can slow progress in a rapidly developing environment. Technology tools are foundational to future business practices. A&E firms can benefit by starting now with lower-risk technology investments rather than waiting for a comprehensive strategy that will delay implementation. As they wait, competitiveness wanes.

Still, firms need to prioritize which technologies are most beneficial to their business and how to apply them. Firms should start by developing a list of their own criteria for success. Ask questions like:

- What will serve our clients best?
- Where are internal bottlenecks that may be barriers to success?
- What are our firm's strengths, weaknesses, opportunities and threats?

The answers will point in the direction of a solution. At the very least, as an industry, A&E firms need to better leverage technology to improve on-time and on-budget performance.

Businesses expect to increase investments in emerging technologies in project management and project execution to enable new ways of working while increasing profitability.

# **KEY DATA POINTS FROM THE SURVEY**

Small firms concentrated on the internet of things (IoT), geolocation and augmented/virtual reality as most important to their businesses. Small firms largely already have basic technologies in place and are taking a closer look at how these technologies can better serve their clients' needs.

2

Medium-sized firms leaned toward big data, data science and artificial intelligence (AI) as most important. Yet only 18% of medium-sized firms have a strategic plan for technology in place, indicating the need to dedicate resources to identify and prioritize which technologies will yield short-term return on investment (ROI).

3

Large firms focused on geolocation, big data and data science as most important to their businesses. With bigger and more complex projects, large firms stand to gain on multiple fronts from investment in new technology applications.



# **Top Emerging Technology** Trends

Firms continue to see emerging technology trends as important to the business including IoT, geolocation and augmented/ virtual reality, where the industry has yet to realize their full impact. Yet in 2020, the overall importance of technology trends retracted across the board - a reflection of firms focusing their resources on clientspecific, revenue-generating activities.

While smaller firms reduced their technology interest in general, large firms continued near full bore. Meanwhile, medium-sized firms leaned into big data, data science and artificial intelligence. The importance of the emerging technology trends intensified for large firms, with more than half identifying big data, geolocation and data science as most important to their business.



Very important

Neither important nor unimportant

#### **Top Technology Trend** 0-50 employees 51-249 employees 250+ employees Prioritizing Which Trends are Most Challenges 28% 20% 18% **11%** 53% **19% 9% 56%** 54% 25% Applicable to Your Business As firms wade deeper into technologies Cost of Technology (e.g. Equipment, that can manifest fundamentally positive 18% <mark>12%</mark> 48% 16% 69% 19% 16% 19% 32% 28% 63% Education) change in their industry, they struggle with navigating the environment and finding the Lack of Time to Invest in Learning about 13% 12% 17% 42% **15%** 17% 14% 46% 16% 16% 41% Technology Trends people and time needed to interpret it. Small firms are most sensitive to the cost Lack of Internal Expertise 18% 13% 36% 13% 36% 13% 9% 28% of adopting new technology, while large Educating Employees about Trends firms are more concerned about educating 11% 28% 14% 15% 35% 22% 47% 13% 13% and their Application to A/E/C employees. The lack of internal expertise, cited by more than a third of small and Educating Clients about Technology 9% 23% 9% 26% 25% medium-sized firms, is a bottleneck. And, Trends and their Application without a champion to lead initiatives -Lack of Champion to Lead Initiative 12% <mark>9%</mark> 26% 13% called out by 26% of medium-sized firms 14% and 14% of small firms - initiating technology Corporate Culture/Openness to adoption and meeting digitization goals 17% 18% 13% 19% **Emerging Technologies** seems daunting. Buy-In From Firm Leadership 13% 17% 9% On top of educating employees, roughly a quarter of firms identified the need to

Second

Third

educate clients about technology trends

and their application to projects as a top challenge. In the short-term it may be difficult to prioritize which technologies will have the biggest impact to the business without client advocacy and tangible short-

term benefits to the business.

# Top Technology Trend Initiatives

Across the industry, technology adoption and digital maturity remains largely in the planning phase as firms continue to focus on creating strategic plans for implementing emerging technology. This was the most prevalent initiative among respondents, followed by developing budgets for strategic investment. While continuing to plan for implementation of new technology, firms are slow to take action. While many firms may focus on developing a strategic plan, short-term actions can be taken to keep initiatives moving forward before the comprehensive plan is complete.



# Top IT Operations Challenges and Initiatives

As firms adopt more technologies, IT Operations face new challenges primarily with data and cybersecurity (69%) and implementing new software systems (55%).

Out of necessity, firms are concentrating largely on creating new security policies and procedures (46%). Thirty-four percent are planning to outsource IT administration and infrastructure while 32% are focused on reengineering business processes. Only 14% of respondents prioritize hiring more IT staff.



### IT Operations Challenges



Most firms envision their business as digitally mature or advanced in 5 years.

This transformation will require commitment, planning and investment as only 25% of firms consider their business digitally advanced today.

# Technology Trends: Digital Maturity

While one in four firms have transitioned to a digitally mature business, most are in various stages of digital maturity. They are looking to better align business and IT initiatives and are looking for better ways to integrate business processes. Much has to change if three in four firms expect to achieve digital maturity in five years.

While firms are optimistic about their digital maturity in the coming years, far too many firms still rely on manual data entry, particularly in accounting and finance. With so many tools available to mitigate the risks of manual data entry, such as errors, delays and wasted time, there is no excuse for relying on manpower for this task. Reducing manual data entry and reliance on spreadsheets is a must in moving toward digital maturity and is another example of low-risk, high-return technology investment. For some companies, this requires adoption of software and for others, it may be leveraging solutions you already have to streamline business processes.



- **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

# CLARITY OUTLOOK Technology Trends

In 2020, firms experienced a new way of operating and with it the opportunity to re-evaluate new technologies that can bring significant returns.

Adoption and implementation of new technology tools will continue into the foreseeable future.

Firms envision better adoption of emerging technologies, but cost and expertise are significant hurdles. Businesses should make it a top priority to identify or hire employees who can assist in this effort, and then take short-term actions to implement technologies most applicable to their business. Finding ways to leverage technologies in project management will be particularly important. As clients increase their interest in new technologies for projects, teams will need to become well versed in not only leveraging the technology but utilizing it efficiently and effectively.



# SECTION TWO Financial Statements

# 60.8%

The overall utilization rate, a primary driver of a firm's revenue, rose to 60.8% while the net labor multiplier slipped slightly to 2.97.

Firms' financial stability was maintained despite the challenging year through the use of tighter controls and leaner spending environments. Operating profits and utilization rates increased while net labor multiplier declined.

Labor costs on a per-employee basis rose, indicating that during the pandemic, firms likely relied on more experienced and higher skilled full-time employees (FTEs).

Other metrics showed the pressures exerted on firms by the pandemic. Liquidity decreased, as did return on assets, while debtto-equity ratio increased.

Revenue backlogs were fairly flat year-over-year as firms demonstrated no material dropoff in their abilities to secure projects and maintain a strong project pipeline.

# ADDRESSING TOP THREE FINANCIAL CHALLENGES

**Finding and Retaining Qualified Staff.** With geographic limitations softening, recruit more broadly and competitively to find and secure quality talent.



Increasing Profitability. Continue to apply the focus and lessons learned from 2020 to protect realized profit gains and drive growth.



Managing Growth. With an eye to the future, assess the cost/ benefits of investing in the latest software and technologies to mitigate inhibitors of growth.



As businesses emerge from pandemic operations, fundamental questions will remain about how they can increase profitability, manage growth and attract top talent. Many of the lessons learned navigating the challenges of the pandemic may serve to achieve those objectives.

Firms must also evaluate questions that include:

• What portion of the workforce can be effective working remotely or in a hybrid work environment?

- What changes are likely to impact a business's real estate footprint going forward?
- What historical travel expenses are able to be offset going forward through the continued use of virtual meetings and collaboration tools?
- How might project management and client relationships change based on lessons learned that can positively impact the bottom line?

How sustainable are operating profit levels, which hit an 11-year high?

# **KEY DATA POINTS FROM THE SURVEY**

Operating profit and utilization rates increased while the net labor multiplier declined as firms operated under tighter controls. Stretching current staff can work during a downturn, but leaders should monitor burn out and balance workload to avoid turnover.

Overhead rate decreased while net revenue per employee increased. The overhead rate benefited from adjustments in compensation as well as the cessation of travel and other related expenses. Finance leaders should evaluate which expenses can be cut permanently and how best to compensate employees in the new work environment.

Average collection period saw a significant decline while backlog increased slightly. Firms can improve their cash flow by continuing to collect receivables promptly. Investments in business development to enhance revenue backlogs and improve project pipelines are priorities.





# 19.0%

+3.2%

Top Quarter 35.8% Bottom Quarter 8.9%

# Operating Profit on Net Revenue

Operating profit on net revenue increased in all segments on a year over year basis, driven by small businesses (+11.4 pts), engineering firms (+4.4 pts) and high performers (+2.7 pts).



#### 10-Year Trend

The 10-year trend in operating profit on net revenue grew significantly, rising to a high of 19% from 9.3% in 2011. Whether this upward trajectory can be sustained will be a function of overhead costs, which declined significantly as a result of the pandemic.



# **Utilization Rate**

The utilization rate increased overall by nearly one percentage point as small firms pivoted well, up 2.3 percentage points from the prior year. High performers increased their utilization rate as well by 1.1 percentage points.

The 10-year trend in the utilization rate also has been gradually rising, with this year coming it at 60.8%, up from 58.3% in 2011.







Bottom Quarter

3.32

2.50

# Net Labor Multiplier

The net labor multiplier slipped slightly to 2.97 from 3.03 a year ago, but high performers saw an increase to 3.45. Large firms increased to 3.03 year over year from 2.93.

Performers

#### 10-Year Trend

Over the past 10 years, the net labor multiplier has been on an upward trajectory. However, it returned to levels previously seen in 2015 and 2017, but still above rates from 2011.



# **Total Payroll Multiplier**

The total payroll multiplier, which is calculated by dividing total overhead (before distributions) by total direct labor expense, was flat on a year over year basis across nearly every segment, while high performers saw a slight uptick and architecturefocused firms saw a corresponding decline.





1.75

#### 10-Year Trend

Results were slightly off the nearterm trend of 1.78 in the last two years but remain in line with the performance seen in each of the previous eight years.





Bottom Quarter

179%

117%

## **Overhead Rate**

Firms were able to lower overhead costs relative to their direct labor expenses compared with year-ago results, dropping the overhead rate from 154% to 146.4%. Each segment reflected this reduction, which was a major contributor to firm profitability. The principal reason for the significant drop was the cessation of travel and in-person events such as conferences and trade shows.



#### 10-Year Trend

The decline observed represents the lowest in a 10-year period.



Architecture & Engineering Industry Study

# Net Revenue Per Employee

Net revenue per employee, which is calculated by dividing net revenue by the average total staff, increased 3%. Large firms increased this metric by 5.5%, while high performers achieved a 5.4% increase. Mediumsized firms were close behind at 4.6%. Architecture firms reported a slight decline, while engineering businesses improved.





+\$4,469

Top Quarter \$173,470 Bottom Quarter \$115,391

# 10-Year Trend

The increase continued a long-term trend as net revenue per employee has increased from \$113,400 in 2011 and recovered from a dip observed in 2017. Firms continue to achieve productivity gains that are likely the result of wider technology adoption.



Architecture & Engineering Industry Study

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Operating profit on net revenue rose to 19%.

A key driver was the curtailment of travel, events and other expenses.



31

## Average Collection Period

Firms reported noticeable improvement in collecting receivables, as the average collection period declined by 10 days or 14%. Small firms and architecture firms led the year-over-year improvement, with declines of 33% and 21%, respectively.



#### 10-Year Trend

Average collection period this year was the lowest in the past 10 years, dropping from a high of 87 days in 2011. Going forward, it will be important for businesses to evaluate the opportunity to continue the performance standard established in the past year.



# Net Fixed Assets Per Employee

Net fixed assets per employee increased by 3% in 2020, with highperforming firms and engineering firms driving the increase. Small firms and architecture firms saw declines due to a higher volume of negative net fixed assets, which is likely the result of asset write-offs or depreciation exceeding their book value.

Fully depreciated assets, combined with less investment in new equipment, which may have been the path for many firms, can result in a significant movement of value off the balance sheet.



\$7,422

+\$219

Top Quarter \$12,721

\$3,195

Bottom Quarter

#### Net Fixed Assets Per Employee
#### **Project Contract Types**

The percent of contracts where the firm is the primary contract holder continues to show fixed price and unit price as the most frequent contract type. The percentage was relatively unchanged compared to the prior year. Fixed price contracts typically are the most profitable and accounted for 57% of contracts where the responding firm is the primary contract holder. Unit price contracts - which are the other major contract type (38%) - are based on time and materials, hourly rates, per diem and salary times a multiplier. Cost plus and other contract types declined markedly compared with the previous year.





#### Firms with Completed Firm Valuations

Net fixed assets per employee increased by 3% in 2020, with highperforming firms and engineering firms driving the increase. Small firms and architecture firms saw declines due to a higher volume of negative net fixed assets, which is likely the result of asset write-offs or depreciation exceeding their book value.

Fully depreciated assets, combined with less investment in new equipment, which may have been the path for many firms, can result in a significant movement of value off the balance sheet.

#### Firms with a Completed Firm Valuation



#### Plan to Complete a Firm Valuation



#### 37.4%





Bottom Quarter

4.88

1.89

#### **Current Ratio**

The current ratio represents current assets divided by current liabilities, where a ratio of less than one indicates a lack of liquidity.

Overall, the current ratio among this year's participants declined by 4% to 2.75. Small firms showed a 21% decline, while architecture firms fell 11% and high performers declined 8%. Large firms increased their liquidity year-over-year, improving their current ratio to 2.15, up from 1.92.



## 0.85

+0.09

Top Quarter 1.58 Bottom Quarter 0.40

#### Debt to Equity Ratio

Debt to equity ratio, which is calculated by dividing total liabilities by stockholders' equity, increased to 0.85 from 0.76. Small firms saw a large jump, which reflect declines in either debt or equity on a year over year basis. Medium-sized firms were stable versus year-ago results. Architecture firms reported a large jump from 0.74 to 1.10, while engineering firms remained flat.



3.45

#### Top Initiatives to Address Financial Challenges

Perspectives among participants in this year's study indicate a similar view of financial action priorities relative to a year ago. The top three financial initiatives cited by respondents included business process improvements (58%), training project managers on financial management (57%) and better forecasting (38%).

Processes such as new financial system implementation, streamlining billing processes and improved risk management plans or systems received relatively less emphasis in responses. However, better growth management and organizational changes/realignment ranked highly with a third of respondents.



## CLARITY OUTLOOK Financial Statements

Economic uncertainty led to a keen focus on maintaining financial stability. Firms focused on their strengths and benefitted from eliminating less-necessary expenses (e.g. travel, events, etc.), reducing overhead as a result.

Firms now have an excellent opportunity to capitalize on lessons learned during the last year by focusing on the things they should have been doing all along and leveraging the efficiencies gained during difficult times. More deliberate evaluation of where dollars should be invested could permanently impact expense profiles, serving to increase go-forward profitability.

Many firms went back to basics and put more focus on closely monitoring the business financials. In some cases, this led to operational efficiencies and digitized processes such as invoicing and billing. While companies will want to continue to evaluate the need for business expenses moving forward, it is impractical to think that these expenses are unnecessary as a whole. Firms should continue to drive process improvement and digitization while balancing the business needs of the new normal. For example, utilization rates may have been higher than normal in the past year, but those levels may not be sustainable and may come at the cost of firms losing some of their most valuable and impactful assets through attrition.



## SECTION THREE Business Development



Business development (BD) resources continued to be stretched. Responsibilities are increasingly being shared as fewer firms report having dedicated business development staff. Cross training staff, therefore, grew in importance as a top initiative.

The cessation of in-person meetings and events posed a significant challenge as BD professionals could no longer travel to see prospects and clients or network at conferences and events. Finding new ways to connect with clients became a challenge that many embraced as an opportunity for differentiation. As some markets and projects paused, competition increased for many pursuits and as a result, overall win rates declined slightly, but the number of proposals submitted increased. Electronic proposal submissions freed many teams up from the laborious production of hard copy proposals to pursue more projects.

#### ADDRESSING TOP THREE BUSINESS DEVELOPMENT CHALLENGES

Finding Time to Nurture Client Relationships. Proactively plan to engage and stay close to clients to better understand their needs as they are the top source of new business.



**Increased Competition.** Tailor client-specific marketing so that firms can better distinguish their brand in the marketplace.



Identifying New Prospects. Focus dedicated resources for prospecting to actively grow

the existing client base and supplement the upselling/crossselling of current clients.



Strategic marketing techniques, like client-specific marketing, will be a key focus in 2021 as BD professionals continue to look for ways to meaningfully connect with clients and prospects. Continued virtual connections may allow for a broadening of the marketing effort because budgets will not be constrained by the need to travel extensively.

Finding the right balance of virtual and in-person business development and networking may take some trial and error. Firms indicated that over the next five years they anticipate client specific marketing, along with social media and thought leadership, to be the three most important marketing techniques. Firms may not be able to reduce costs to the extent experienced this year but evaluating what the next generation of business development should be and how resources should be allocated can be done now.

Firms need to adjust their strategies for next-generation networking and marketing.

#### **KEY DATA POINTS FROM THE SURVEY**

Win rate declined to 44.7% driven by medium and large firms. Better pursuit strategies can help firms focus on projects they have the highest likelihood of winning.

Capture rates increased year-over-year across all firm sizes. If firms can sustain or improve their capture rates, net revenue growth will follow. Leaders should focus on improvements that will yield greater success in bidding.

3

Seventy-four percent of respondents expect client-specific marketing to be their top marketing technique in the next five years, which can help firms build their brand in addition to nurturing client relationships.



Firms expect growth in numerous markets including federal, energy/power and transportation in the next 18 months. Stimulus and infrastructure spending by federal, state and local governments should offer new opportunities.



#### Top Business Development Challenges

The top three business development challenges remained constant, but the number of respondents that indicated finding time to nurture client relationships as their top challenge grew five percentage points. Increased competition as a first choice also grew by four percentage points, and while 15% of respondents indicated identifying new prospects was their top challenge, it was down from 18% a year ago.

While not in the top three challenges, more firms identified limited business development resources as a key challenge.

Complicating the shortage of BD resources is a need for better coordination between BD and operations, along with a lack of intelligence for opportunities in enough time to position firms for a win. Nearly one in five respondents thought there was not enough time to respond effectively to RFPs and RFQs. With the number of proposals climbing, firms may be looking for ways to approach proposals more strategically to ensure they are investing in the right efforts.





+2.1%

#### Top Quarter 20% Bottom Quarter -92%

#### Net Revenue Growth Forecast

Small firms are forecasting significant net revenue declines, reducing the forecast to 4.2% from what would have been a bullish outlook. Their forecast remains pessimistic despite coming in ahead of last year's forecast. Firms overall focused on current clients for revenue and refocusing on building the pipeline with prospects and clients to help drive success in the coming years. Medium and large firms forecast gains of 8% and 6%, respectively. Architecture firms expect flat revenue growth, while engineering firms anticipate gains of 6%.



#### 9-Year Trend

The nine-year trend in net revenue growth showed growth in the 5-6% range in most years. The drop to 2.1% in the past year was a direct result of uncertain market conditions and the global pandemic, but the trajectory is returning to an upward trend.



#### **Revenue from Top Three Clients**

Revenue from the top three clients dropped to 37% overall, with large firms experiencing the greatest decrease from 29% to 21% yearover-year. High performers, however, grew their revenue from the top three clients by six percentage points. Architectural firms experienced a nine percentage point in decline, while engineering firms fell by three percentage points. Diversification of the client base is important for risk mitigation, as tying the firm's success to a few clients can create exposure to factors beyond the control of the firm. Deriving a large portion of total revenue from a small number of clients mandates a close relationship with key clients and excellent project delivery. Firms should seek to expand their client base while nurturing their best client relationships to avoid unforeseen difficulties.



### 37.0%





#### Position In Market Over Next 18 Months

Firms are optimistic about their position in the markets they serve in the next 18 months. Firms indicated they expect their position to increase in federal, energy/ power and transportation more than any other market, but most markets have a positive outlook. Additionally, more firms are expecting their position to decline in hospitality, public facilities and education. It's also worth noting that many companies anticipate their position in the market will stay the same, which reiterates the lower than expected impact to the industry as a whole during the last year.



#### Win Rate

The overall win rate decreased almost two percentage points to 44.7% from 46.5%. Both medium and large firms experienced declines, but small firms managed a gain to 44.3% from 41.9%.

Architecture firms experienced a decline of six percentage points, while engineering firms' win rate rose to 48.2% from 47.0%.

The number of firms reporting that their win rate stayed the same or decreased grew from 51% to 57% year over year. Nine percent benefitted from significant increases, while 34% reported a slight increase in win rates.

The seven-year win rate trend line fell to 44.7% from a high of 50.0% achieved in 2017. Except for 2016, however, the rate has stayed in the mid 40% range with 2017 as the exception.

#### 49.5% 48.0% 48.2% 46.9% 44.3% 40.0% 39.1% High Others Small Medium Large A or A/E E or E/A Performers

Win Rate





### 44.7%

-1.8%

**Top Quarter** 60.0% **Bottom Quarter** 30.8%





#### 45.8%

+3.5%

Top Quarter 62.5%

Bottom Quarter 28.5%

#### **Capture Rate**

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

The capture rate was up year-overyear across all size firms. Engineering firms grew from 42.1% to 44.9%, while architecture firms decreased to 40.6% from 43.1%. The difference may reflect the type of projects that engineering firms are pursuing such as much larger infrastructure projects versus a single office building.





#### Formal Go/No Go Process

In this year's Study, firms employing a formal go/no go process grew to 75.7% with firms of all sizes experiencing an increase. More firms reported using a formal go/ no go process for all opportunities compared to the previous year. Fiftyone percent indicated the use of this process, compared with 46% the prior year. Having a formal process helps objectively decline projects with low win probabilities.

Of the firms not currently leveraging a go/no go process, 25% are considering implementing one for decision making. More small and medium-sized firms are interested in doing so.



75.7%

+4.2%



**Employ Formal Go/No Go Process** 

#### Considering Go/No Go Process



Architecture & Engineering Industry Study

## 

Study respondents are optimistic about revenue growth.

The net revenue growth forecast is 4.2% compared with 2.1% last year.

## 

#### Responsibility for Business Development

Dedicated business development staff and executives still hold the primary responsibility for business development, which is no surprise. Marketers and project managers, while often involved, do not often hold the primary responsibility.

Fewer firms overall reported relying solely on business developers, while more firms reported reliance on seller-doers. Relatively unchanged, 48% of companies leverage both dedicated business developers and seller-doers and this hybrid model is much more prevalent with medium and large firms, 60% and 57% respectively.







#### Firms with Formal Business Development Processes

The percentage of firms reporting that they have a formal business development process declined slightly year-over-year. Sixty-one percent of respondents do not have a formal process. This presents an opportunity to improve the BD function and attain greater success by applying metrics and analysis to BD decisions.

Small firms use of formal processes dropped seven percentage points year-over-year from an already-low base of 31% to 24%.

Medium-sized firms increased their use of formal processes by six percentage points, while large firms decreased by approximately four percentage points.

Architecture firms decreased their use of formal BD processes from 39% to 28%. Engineering firms, however, increased by more than six percentage points.

#### Firms with Formal Business Development Processes





#### -2.2%

#### Firms with Formal Business Development Processes



#### **Marketing Techniques**

Social media was at the top of the list for marketing programs, down six percentage points from the prior year, but still a mainstay with 81% of firms having utilized this channel. Client-specific marketing grew in importance year-over-year as a top marketing initiative with 65% of firms now using the technique. Virtual programs such as virtual trade shows and video marketing also grew, while in-person events such as trade shows and exhibits, along with public relations, declined.

Approximately one half to one third of firms continued to use more traditional techniques such as direct mail, e-newsletters and corporate blogs to try and reach their clients and prospects. Thought leadership and content marketing continue to be used by about 40% of firms.



#### Marketing Techniques Anticipated to be Most Important in Next Five Years

Over the next five years, more firms expect that client specific marketing, content marketing and virtual trade shows will be the most important marketing tools for success. There was a clear decrease among respondents in the popularity of traditional in-person trade shows and exhibits and public relations. Virtual techniques and more targeted marketing are anticipated to be important techniques moving forward.



#### Top Business Development Initiatives

Earlier identification of opportunities and requirements was once again the top business development initiative. Faster recognition and awareness of opportunities provides greater time for a more effective and successful response. Businesses also look to cross-train staff to perform business development functions. Firms looking to invest in market intelligence or customer relationship management (CRM) systems, while lower in priority, is on the rise. Improving analytics could move firms into a more active position, rather than waiting for new projects to appear when it's too late to execute a strategic pursuit plan.



## CLARITY OUTLOOK Business Development

Firms are dependent on passive sources of new opportunities such as existing client relationships and requests for proposals and referrals, while more active strategies like networking will continue to evolve in coming years.

The pursuit process has changed, becoming more virtual and digitized for many clients. Firms should take a close look at how they can use this change to better focus resources, conserve costs and develop proposals more strategically. In-person meetings will return at some level going forward, but selective decisions about when they are necessary will channel energies more effectively. Companies must seek the right balance between in-person and virtual business development methods, and carefully target their marketing efforts to their client interests and needs. The use of business intelligence tools will grow in importance as firms look to find and analyze business prospects on a timely basis. Investment in CRM systems that everyone in the firm can access and use will prevent missed opportunities and help companies better position their firm to win.

Finally, there is the need to undertake a realistic evaluation of business development staff. While short-term savings may be attractive (or necessary), having the right staff in place is key to longterm success. The move toward remote and flexible work may allow for broader recruitment and more cost-effective deployment of people.



## SECTION FOUR Project Management

## 64.8%

The percent of projects on or ahead of schedule was 64.8%, down 1.5 points. For years firms have identified project management as an area needing improvement. With most project managers (PMs) typically being architects, designers and engineers by trade, training and developing PMs and investing in better technology have been recognized as important objectives.

As the pandemic took hold and workers went remote, firms were stretched as they tried to keep projects on track, coordinate with clients virtually and keep teams connected. Ultimately, they settled into a new way of delivering projects and focused on meeting client needs.

2020 was a year of adapting to new and unforeseen conditions. There was little positive momentum in implementing new best practices or acquiring experienced talent. As firms move to a new state of normalcy for project delivery, firms will need to focus on enhancing project management and make this the year of the project manager.

#### ADDRESSING TOP THREE PROJECT MANAGEMENT CHALLENGES

**Competing Priorities.** Align job responsibilities with individual Project Manager (PM) strengths while adding training to enable growth.



**Staff Shortages.** Recruit experienced PMs that can also act as mentors, increase headcount and ensure competitive compensation levels.



Inexperienced Project Managers. Invest in technology that provides analytical tools and train PMs in how to use it, including project management, scheduling and financials.



Firms appear to be getting more serious about project management as a discipline, just like engineering or architecture.

Understanding financials and how project metrics affect them is still an area of great opportunity with a direct path to better financial performance. Access to software that provides greater insight into project resources, performance and financials is the first step. Training and better understanding of project financials will help PMs analyze performance and proactively manage projects while better integrating with finance staff as a standard operating procedure.

Firms cannot afford to appoint PMs without necessary training and development. Clearly defined PM processes will increase project success and consistency from one project to the next.

Improved visibility into project progress and metrics, such as schedule variance and client satisfaction, can enhance PM accountability and project profitability.

#### **KEY DATA POINTS FROM THE SURVEY**

Only 6% of firms report that all of their PMs have formal training. Investment in formal training programs will upgrade the staffs' capabilities and attract good candidates who wish to advance.

Architecture firms demonstrate greater use of clearly defined PM processes compared with engineering firms. While different project types may account for this difference, engineering firms should reevaluate their processes and applicability to projects.

Only half of firms offer project financial management training for PMs. If PMs do not understand the financial effects of their team's actions, profitability is greatly compromised. Firms must ensure that PMs are trained and aligned with both finance and executive functions.



#### Top Project Management Challenges

Project Managers continue to be challenged by competing priorities, which 60% named as one of their top three challenges. The four percentage point increase likely resulted from the sudden need of firms and their clients to adapt to a distributed workforce. Firms continue to face longstanding challenges such as staff shortages, inexperienced PMs and outdated, inadequate PM tools.

Firms need to take an honest look at the tools used in day-to-day project management – starting with team communications and shared file management. With the availability of off-the-shelf collaboration tools for the A&E industry, most firms still rely on email and internal network folders to manage project information. This can be inefficient, lead to missed communications, version control issues and unnecessary project delays.

When staff is trying to do too much with varying levels of experience, the opportunity for problems mount. Symptoms are evidenced by the quarter or so of respondents citing accountability, insufficient or poorly executed project management procedures, and accurate project cost and timeline forecasting as significant challenges. Investment in technology and training ameliorates these problems.



#### Projects On or Ahead of Schedule

Firms reported this year that 64.8% of projects are on or ahead of schedule, which is on par with the previous year. High performers accounted for more than 70% in both years, outperforming all other firms by 10%, while engineering firms consistently outperform architecture firms. Firms that proactively monitor more KPIs tend to perform better because they identify challenges sooner. PMs who lack visibility into schedule and cost variances cannot effectively manage projects and course correct as needed to keep internal teams on track. A clearly defined project management process is more likely to produce an on-schedule result. Firms need project managers with formal project management training and the appropriate tools to succeed.







#### -9.1%

Top Quarter 85% Bottom Quarter 50%

#### Projects On or Under Budget

Firms reported this year that only 62.1% of projects are on or under budget. Architecture firms dropped eleven percentage points compared with last year, while engineering firms rose three percentage points. While the pandemic may account for the year over year drop, the statistic had been hovering at 70% for a while.

Project Managers must get back to the business of managing projects starting with the scoping phase and continuing through execution. Challenges with finding and retaining talent and experience, as well as ineffective tools, continue to constrain the efficacy of the function. Firms can benefit from clearly defined project management processes and accountability to better identify project challenges and keep projects on track. It also creates opportunities to identify trends and remove obstacles preventing project success.



#### **Project Status Visibility**

The need for better visibility into project performance metrics is a recurring theme among Study respondents. Like the previous year, only a small majority of firms (58%) have high level of visibility to review cost variances. This implies that nearly half of firms would not be aware of cost overruns in real time. In some cases, this gap is the result of software limitations, but it may also be a lack of accessibility for key leaders.

Limited ability to monitor project-specific KPIs (49%) further disadvantages PM visibility into project status. Firms that do not enable PMs to monitor projectspecific metrics in real time are likely to be challenged to recoup costs as projects reach more mature phases.

Visibility into schedule variances ticked up slightly, but visibility into client satisfaction continued a downward trend. Only 26% of firms rated their visibility as very high or high, although 34% placed themselves in the moderate category, an improvement of six percentage points. When PMs lack the data to ascertain whether clients are satisfied or not before closure of a project, future projects are at risk.



#### **Project Reporting Accuracy**

Firms are generally confident about the financial aspects of reporting accuracy. There is a need for forward-looking reporting to forecast project performance throughout every phase to allow PMs to adjust.

Schedule accuracy represents an opportunity for improvement while 71% of respondents indicate a high or very high level of confidence about budget reporting accuracy.

Overall, only 59% of respondents express high or very high confidence in project reporting accuracy. PMs need better systems of tracking that integrate with other departments so that all stakeholders have access to accurate and reliable information.



#### Maturity of the Project Management Discipline

Three key elements for establishing project management maturity are a clearly defined process, a Project Management Office (PMO) or Center of Excellence and formal project management training for project leaders.

There was no measurable advancement in projects using clearly defined processes. Seventy-three percent of firms use one for at least half their projects. This begs the question: why not the other half?

The number of project leaders with formal project management training also remained steady. More than a quarter of project leaders have no formal PM training, while 22% have less than half of their leaders trained. Only 6% of firms report that all of the PMs are formally trained.

Consistent with the shortage of formal training and processes, the total number of firms with PMOs or Centers of Excellence is only one in ten, continuing a downward trend. The larger the business, the more likely it is to have a PMO. Recognizing project management as a key part of firm success and treating it as a disciplined function with highly qualified and trained professional staff is overdue. A PMO does not need to be formal and costly, but it should serve as a repository of best practices and process improvement while serving as the control tower for operations. Building toward a robust PMO may take years, but firms must start now with incremental steps to achieve the objective.

#### Firms with PMO or Center of Excellence





#### Project Leaders with Formal Project Management Training





#### **Internal Project Performance Evaluations**

On average, one-half of firms complete internal project performance evaluations, with large firms more likely to do so. Nearly 53% of firms responded that they perform project performance evaluations compared with 46% a year ago. Engineering firms were five percentage points more likely than architectural firms to do so. Firms need regular evaluations so that designers can better understand their performance and adjust accordingly, if needed, before beginning the next project. Project-based appraisals need to be continuous, and feedback has to be gathered and used in a timely manner to add value. Only half of firms that use internal performance evaluations apply the process to all projects. Ideally, an evaluation process should be applied regularly to all projects to drive overall success and enable future growth. If designers never work on projects that receive evaluations, how will they understand if they are meeting expectations?

Among those who do not, 51% percent of firms are considering implementing internal project performance evaluations, up from 42% a year ago.





# 62.1%

Only 62.1% of projects were on or under budget, down nine percentage points

#### Project Management KPIs Tracked

Of the KPIs that are well-tracked, most are standard financial measures such as net revenue, profitability, average collection period and multipliers. About half of firms track average and effective billing rates, cost variances and estimates to complete. Adoption of this second tier of KPIs would likely improve overall project success rates across the industry. If firms can identify the areas in which they are struggling, such as project scheduling, they can identify the right metrics to track to help improve performance or identify challenges.

Very few firms are monitoring earned value management (22%), while only 26% track schedule variances. On-time delivery is measured by 32%. Client satisfaction is only measured by 40%.

This altogether indicates that PMs operate with limited information to meet their job expectations.



#### **Measuring Client Satisfaction**

There is likely no metric more important to the future of a business than client satisfaction because it predicts whether clients are likely to award future work and/or refer the company to other potential clients. Losing sight of that fact can have disastrous results. Yet, only 40% of firms were tracking a client satisfaction metric, which is the same number as the previous year.

Half of firms that measure client satisfaction do so only for strategic projects. Implementation of tools that make it easier to measure and analyze satisfaction for other projects could improve performance greatly. Of the firms measuring client satisfaction, only two out of three do so on a regular basis. Thirty-one percent measure at the end of the project, while 23% track project performance at key milestones.



#### Measuring Client Satisfaction by Project Type



#### Frequency of Measuring Client Satisfaction



#### Project Management Aspects Firms Manage Well

Firms are comfortable with peoplecentric activities associated with project management: relationships, communications and collaboration. They lack confidence, however, in the technical aspects of project management.

Only one in five firms report that their project management procedures are strong and that their project cost and timeline forecasts are accurate. However, few firms indicate they have the right software, visibility into project schedules or alignment with executives.

Improvement in the technical aspects of the job could lead to an increase in profitability. Investment in the right tools and training so that PMs can adequately understand, measure and course correct their activities continue to be necessary.


#### Top Project Management Initiatives

There is a clear need to improve the capabilities and processes of the PM practice, which are at the heart of the industry. The improvement begins with more clearly defined responsibilities, internal training and developing internal PM best practices. While there is a desire to hire more qualified staff (35% of respondents ranked this as a top three priority), it is important not to overlook the personnel already in place. Providing better tools and training will yield more qualified staff and higher retention rates.

Firms need to evaluate whether they are allocating sufficient time and resources to develop the PM function. Across all firm sizes there is room for improvement. While creating a stronger function might require incremental steps, failure to take action can lead to underperforming projects, attrition of key staff and unhappy clients.



### CLARITY OUTLOOK Project Management

2021 is "The Year of the Project Manager" and firms should provide this discipline the attention it deserves. PMs need better visibility into key project metrics and additional training in managing projects so that they can work more successfully.

Regularly evaluating client satisfaction for all projects is another must. Ideally, the people responsible for measuring client satisfaction, particularly at the end of a project, should be outside the project management function so that feedback is objective and uncensored. Project performance and client satisfaction are inextricably linked. On schedule and on budget performance must improve if firms expect to win repeat business. A few ways to improve performance are to expand KPIs monitored and ensure teams have the right technology to effectively manage projects.



### SECTION FIVE Human Capital Management

Forty percent of firms have not added to or replaced their HR solutions in more than five years.



The switch to a distributed workforce not only challenged traditional workforce management but created new challenges for acquisition and onboarding. The benefits of remote and more flexible work options will still be desired by many. A key job for Human Capital Management professionals will be finding the right balance between in-office and remote workforce policies and practices. Establishing the optimum new normal could influence success in recruiting and retention.

Talent acquisition continues to be challenged by the availability of good candidates. While participants reported a decrease in employee turnover, employees may begin exploring new opportunities in the coming year, leading to more open positions to fill. The ability to offer competitive compensation and benefits was less of a concern (52% versus 62% year over year), but that is expected to change with potential increases in attrition.

#### ADDRESSING TOP THREE **TALENT ACQUISITION CHALLENGES**

The Availability of Good Candidates. Continue the use of remote and flexible workplace policies to expand recruitment reach. Firms should seek to institutionalize these policies long-term.



Matching Qualified Candidates to Open Positions. Maintain a skills repository to easily identify gaps and maintain a potential candidate bank categorized by skills.



#### **Competitive Compensation.**

Increase focus on competitive compensation as competition for talent is expected to increase as negative pandemic impacts recede.

As firms rethink their workforce composition and distribution. they could become more competitive through improved branding and culture. Overhauling benefits, flexible work options and recruitment approaches could lead to meaningful change. Many workers prize the total life experience, not just the work experience. Any steps that firms can take to make the work/ life balance more attractive will help in recruiting the best candidates, especially after a year of working remotely with increased utilization. This will be increasingly

important as the job market heats up and candidates, no longer restricted to certain geographies due to remote working, look for new positions.

Human Capital Management KPI tracking decreased overall as managers likely were pivoting to support a remote workforce. Attention needs to return to the key metrics that permit meaningful analysis. Firms will need to find ways to finally tackle the ongoing challenges of identification and retention of high caliber talent.

Investments in talent acquisition and performance management tools yield positive returns.

#### **KEY DATA POINTS FROM THE SURVEY**

Thirty-three percent of firms reported having more open positions than last year. Now that the pandemic is beginning to wane, employees are likely to consider migrating to new positions, so active recruiting and retention will be essential.

Coaching and mentoring rose in importance as the top method to develop talent, as the use of external education programs declined. Younger workers are looking for a clear career path and opportunities for development. Firms should revisit educational benefits that exceed basic online offerings.

3

Annual employee surveys are decreasing as 360° evaluations and pulse surveys are on the rise. Regular and frequent feedback informs employees and employers on where they stand so they can course correct before it is too late.

4

The generational composition of management is shifting as more Baby Boomers retire. In order to attract younger workers who value flexibility, firms must offer a life experience rather than just a job experience.



#### Top Talent Acquisition Challenges

Respondents to the Study once again chose the availability of good candidates as their top concern (90% versus 87% year-overyear). The theme of finding top candidates and the ability to offer competitive compensation has persisted for the last several years.

Yet change is on the horizon. This past year offered a proof point about the efficacy of remote and flexible work environments. As a result, employees are more geographically flexible. Recruiting and competition for candidates is expected to heat up, but with continued remote working options, firms should consider widening the reach of their recruiting efforts to include employees previously not considered due to location if they are willing to continue supporting a remote workforce.

Retention should not be overlooked. Many employees want to see a career path with advancement potential and crave development opportunities.



#### Top Challenges for Managing Talent

Firms were asked to identify their top three challenges in managing talent. Succession and career development planning rose from third place to first, increasing eight percentage points to 56% of respondents who considered it one of their top three concerns. Performance management held steady, while employee engagement/ experience fell five percentage points, which was not surprising with a more dispersed workforce.

Learning and development programs rose substantially. Forty-eight percent of respondents considered it one of their top three challenges, up from 36%. The ability to retain employees is closely tied to the availability of career development opportunities as workers seek to advance in their careers. Successful firm-wide initiatives to improve employee progress will separate the high performers from other firms.





#### Top Quarter 13.1% Bottom Quarter -12.2%

#### Staff Growth or Decline

Firms reported minimal growth of personnel with just a 0.5% increase compared to 3.7% the prior year, with medium and large firms declining sharply. Among high performers, growth decreased to 1% from 7.1% the prior year. Architecture firms reported no growth or decline, while engineering firms grew 2.7%.

A greater number of firms (33%) reported an increase in open positions, which may be the result of hiring freezes or the continued challenge of finding quality candidates. Fifty percent of respondents reported about the same number of open jobs, while 16% had fewer open positions.

Growth was the primary driver of open positions, a promising harbinger if firms can upgrade their recruitment processes. Forty percent cited both growth and cannot fill existing positions.



Number of Open Positions



**Reason for Open Positions** 



2.7%

#### Employee Turnover

The employee turnover rate fell to 11.8% from 13.1% as all sized firms experienced declines year-overyear. In prior years, turnover had been rising with the stable economy, low unemployment and abundant competing offers. In the last year, more employees chose to stay put with so much uncertainty in the market and economy. As the job market heats up, firms will need to closely monitor their turnover rate in the context of the industry and determine whether changes in compensation and workplace policies are necessary to compete successfully.





# 

Employee turnover decreased to 11.8% from 13.8%.

Staff growth decreased to 0.5% from 3.7% due to uncertainty in the market.

### 

#### Average Time to Fill Position

The average time that firms needed to fill a position improved by five percentage points. Thirteen percent were able to fill jobs in 0-30 days, compared with 8% the prior year. The greatest percentage, 43%, required 31-60 days and 29% report 61-90 days. The improvement in the fastest category may have occurred because of a greater availability of candidates or better use of technology. The use of video interviewing grew by 40% as a top technology for recruiting and interviewing, facilitating faster execution of conversations and opened up the pool of candidates for consideration. A greater number of small and large firms reported 0-30 days as the average time to fill a position. Medium-sized firms stayed flat. Firms should strive to continue this faster pace, as it is more cost-effective (less time until the position is filled) and more appealing to candidates.





#### Most Expensive Business Processes to Support

The top three most expensive business processes to support remained the same as last year. The talent acquisition process continues to be the most expensive, with 73% of respondents ranking it as one of the top three. Annual performance reviews and developing learning programs remained in the top three but dropped in importance to 48% and 46% respectively.

More up-to-date performance management practices emphasize continuous feedback cycles and project-based appraisals rather than annual reviews. Time-intensive reviews tax both managers and employees and are of questionable value due to the time between conversations and the backward facing/untimely nature of information discussed.

The talent acquisition process cost could be ameliorated by tapping a wider candidate base that can work remotely and/or on flexible schedules, speeding the interview process, and qualifying prospective candidates more carefully to avoid unaccepted offers.



#### Top Tools Used to Develop Talent

Fewer firms reported using external education programs to develop talent, down seven percentage points versus one year ago, while coaching and mentoring grew four percentage points. Ninety-five percent of respondents placed coaching and mentoring as one of their top three tools to develop talent. This method is important, but subject to significant variability with the aptitude and commitment of those involved.

External education programs may have fallen in the last year as a result of limited opportunities to attend in-person conferences and training, but there are also more opportunities than ever for online learning and training. More firms are adopting e-learning programs (45%), which can augment employee development at much less cost. For a workforce that values flexibility, online learning is a good fit with varying schedules and levels of expertise.



#### **Generational Composition**

The generational composition of top level management showed declines in Baby Boomers (born between 1945 and 1960), down four percentage points, and corresponding growth amongst Gen X workers (born between 1961 and 1980), up five percentage points. Gen Y/Millennials (born between 1981 and 1995) now make up 9% of top level management. Middle level management showed a similar trend, with Baby Boomers decreasing to 12% from 14% and Gen X accounting for a slight increase to 63%. Gen Y/Millennials accounted for 25% of middle management positions. Lower-level management consists almost entirely of Gen X and Gen Y/Millennials now.

As younger generations continue to make in-roads in the industry, Human Capital Management leaders will need to account for staff career and workplace preferences (e.g. flexibility, greater work/life balance, mentorship), which are different from older generations. There is also an opportunity to push the status quo in that staff shouldn't move up the management ladder only when they are at the right age or when baby boomers retire, but it should be based on skills, aptitude and desire to manage the business.

#### Top Level Management by Generation



Baby Boomers (individuals born between the years 1945 and 1960)
Gen X (individuals born between the years of 1961 and 1980)
Gen Y/Millennials (individuals born between the years 1981 and 1995)
Gen Z/Digital (individuals born after 1995)

#### Middle Level Management by Generation



Baby Boomers (individuals born between the years 1945 and 1960)
Gen X (individuals born between the years of 1961 and 1980)
Gen Y/Millennials (individuals born between the years 1981 and 1995)
Gen Z/Digital (individuals born after 1995)

#### Lower Level Management by Generation



Baby Boomers (individuals born between the years 1945 and 1960)
Gen X (individuals born between the years of 1961 and 1980)
Gen Y/Millennials (individuals born between the years 1981 and 1995)
Gen Z/Digital (individuals born after 1995)

#### Human Capital Management KPIs Tracked

Human Capital Management KPIs tracked were down year over year. Tracking revenue per FTE fell nine percentage points, but still was the top metric tracked. Voluntary turnover also received less attention, falling to 57% from 73%, while involuntary turnover fell to 55% from 69% year over year. Employee retention also fell 15 percentage points to 41%.

Average cost per hire dropped nine percentage points year over year perhaps a result of more efficient virtual acquisition tactics. With the expected rise in employee attrition and competition for talent, firms will need to refocus their attention and analysis on financial metrics as well as hiring/attrition statistics, as these will yield significant opportunities for performance improvements.



#### Employee Engagement Surveys

Only 55% of respondents reported using annual employee surveys compared to 60% in the prior year. Pulse surveys and 360° evaluations increased to 22% and 34%, respectively. Employee exit interviews were cited by 81% as the most important engagement survey. However, by the time the firm conducts an exit interview, it is often too late to change course and retain an employee, or the feedback provided is not valued. The decline of annual reviews reflects the move toward more frequent and timely feedback. The rise in pulse surveys and 360° evaluations is indicative of leaderships' growing need for more actionable and timely assessments.



#### Professional Development Opportunities

For the third year in a row, the top three professional development opportunities were professional licenses (91%), conference attendance (86%) and professional certifications (82%). Conference attendance did decline seven percentage points despite opportunities for more virtual conferences. Rotational job assignments grew year over year perhaps influenced by the need for employees to flex more during a challenging year.

While employees benefit from these programs, firms can arguably benefit more. To better balance employee and firm benefits, professional development investments need to extend beyond the maintenance of certifications and align more with career development plans. Offering programs that help employees expand their skills and career potential can be instrumental in employee engagement and retention.



#### 44%

+1.0%

#### Succession Planning

Succession and career management planning continues to be a top challenge for firms as evidenced by the fact that only 44% of firms have formal succession plans. For those that do, succession planning for current/next-in-line leaders grew to 63% from 58%. High-potential employees were included in planning at 20% of firms, up from 16% the prior year. Architecture firms decreased planning for current leaders and nextin-line leaders by seven percentage points but increased their attention to first-line leaders and high-potential employees. Engineering firms increased planning for current and next-in-line leaders to 65% from 56%. and sharply increased planning for high-potential employees (22% vs. 9%). Employers who are stretched thin on resources devoted to creating and supporting these programs will likely need to find a way to develop and prioritize this moving forward in order to support the modern workforce's requirements.



Who Succession Planning Applies to at Firm



Who Succession Planning Applies to at Firm



#### Learning Management System

Only 12.4% of firms reported having a Learning Management System (LMS), a decline year-over-year from 13.6%. Large firms continued the trend of being more likely to have an LMS at 34.8%. Seven percent of architecture firms have an LMS, while engineering firms were considerably higher at 15.5%.

Many firms report Project Management training as an issue and are struggling to formalize the learning practice. The top challenge with adoption of a LMS is that employees do not have time, cited by 77% of respondents, an increase from 49% the prior year. Firms continuing to find it difficult to build the content and programs were up to 65% vs. 54% a year ago. Additionally, firms reporting that managers are failing to promote the value of learning (26%) also grew. Focus will need to be placed on finding easy to implement, highly affordable learning solutions to retain talent in the near future.

Firms with a skills repository remained constant at 31%. Skill repositories help firms to appropriately assign staff to proposals and projects, as well as to identify skills and competency gaps within the company. Large firms are most likely to have a skills repository, but small and mediumsized firms could clearly benefit from leveraging one.



12.4%

-1.2%



#### Firms with Skills Repository



#### Top Challenges with Adoption of LMS



#### Architecture & Engineering Industry Study

#### Top Initiatives in Acquiring Talent

The top two initiatives for acquiring talent remained the same. Improvement in the perception of the firm in the marketplace to attract better talent was reported as one of the top three initiatives by 63% of participants, up from 57% a year ago, while improving the compensation offering stayed unchanged at 43% in second place. Improving onboarding processes and procedures also remained a top initiative at 43% as firms were challenged with bringing on talent in a remote environment.

Utilizing a new talent acquisition solution declined year-over-year from 38% to 33%, likely a result of paused investment due to the pandemic. Increasing HR staff rose to 20% from 15% as firms likely recognized they need more dedicated employees to achieve hiring and onboarding objectives with a distributed workforce.



#### Top Initiatives in Managing Talent

The top initiative for managing talent was create/improve succession and career development planning, identified as a top three initiative by 57% of participants. The second choice of initiatives was to develop more formal career development programs at 53%. Create/improve mentorship programs and create employee engagement programs rounded out the top four selections with create employee engagement programs growing three percentage points year over year.

Employees are hungry for clear career paths and opportunities for development and promotion. Recruitment and retention require a vision for each employee's future potential and a way to achieve it.



### Human Capital Management

Talent acquisition continues to be challenging, but new workplace policies that offer remote and/or flexible work options will expand the base of available candidates in addition to geographic reach that previously did not exist.

The composition of management by generation is shifting gradually toward a younger workforce that values employee benefits differently. Firms should evaluate the lessons learned from a distributed workforce and carry on the positive elements that appeal to employees. Offering a work experience that accommodates a positive life experience will prove very attractive to many highquality candidates.

Similarly, firms should analyze what improvements can be offered to current employees to retain them. Offering a clear career development path and training, along with succession plans to encourage highpotential employees to stay, will upgrade the overall quality of the workforce.

Investments in technology that can assist in employee development and track skill sets useful in achieving growth can streamline costs. Talent acquisition programs can utilize software to identify and follow attractive candidates, thereby reducing the cost of recruitment. Firms that build a database of potential candidates will spend less time closing the recruitment process and reduce the time required for onboarding employees from hire to billable status.



### Summary

The industry outlook and market conditions are positive after a challenging year. A&E firms focused on the fundamentals and stayed close to their clients in order to maintain financial stability, keep projects on track and retain employees.

The ability to recruit and retain top talent remained a long-standing challenge, but new tools emerged or have become more widely adopted that can help moving forward. Remote and flexible work options, if retained, will expand the candidate pool and, as employees move up the management ranks or explore other career opportunities, these popular benefits can help attract the right talent. Firms should look to build a life experience that accommodates work, rather than a work experience exclusively.

This should be "The Year of the Project Manager." Project Management is in need of better tools and training to mature effectively. Most PMs lack management and administrative training, and often are not comfortable with financials. Monitoring the right KPIs and leveraging software that enhance project visibility, along with training, can increase profitability and client satisfaction. Business development professionals will need to find a new balance between inperson and virtual activities to stay close to clients and find new prospects. Reduction of costs through elimination of some travel and in-person event attendance will allow resources to be allocated more efficiently. Additionally, closer alignment with strategic marketing initiatives can help firms stay in front of key clients when face-to-face meetings may not be feasible. New ways of networking will continue to emerge.

Digitization, cybersecurity and technological maturity are key focus areas for the industry going forward. Continued migration of applications to the cloud, management of a more distributed workforce and adoption of new technologies and tools will facilitate cost-effective advancements. Firms wedded to older methods and outdated technologies will suffer competitively.



	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	\$150,853	\$173,834	\$139,527	\$139,527	\$154,860	\$164,563	\$152,505	\$148,336
Total Revenue Per Employee	\$184,517	\$220,967	\$181,742	\$170,372	\$189,091	\$214,571	\$223,524	\$168,386
Operating Profit on Net Revenue	19.0%	27.0%	11.2%	27.3%	18.4%	14.9%	18.2%	19.4%
Operating Profit on Total Revenue	12.6%	19.3%	9.3%	10.1%	13.7%	11.4%	10.0%	13.9%
Utilization Rate	60.8%	61.0%	61.1%	63.9%	58.4%	57.8%	59.2%	60.8%
Net Labor Multiplier	2.97	3.45	2.69	2.93	2.99	3.03	2.97	2.97
Total Payroll Multiplier	1.75	2.07	1.63	1.74	1.77	1.73	1.75	1.77
Overhead Rate	146%	150%	145%	136%	150%	158%	146%	150%
Staff Growth/Decline	0.5%	1.0%	0.0%	0.0%	1.5%	-1.4%	0.0%	2.7%
Employee Turnover	11.8%	11.8%	12.2%	9.5%	12.5%	12.7%	11.8%	12.1%
Total Employee Cost	\$99,253	\$104,844	\$102,804	\$83,789	\$102,991	\$106,871	\$101,129	\$96,569
Net Fixed Assets Per Employee	\$4,626	\$6,428	\$6,253	\$1,200	\$7,016	\$9,422	\$4,115	\$5,409
Average Collection Period (days)	63.1	65.6	69.0	44.8	73.5	60.9	61.2	63.3
Win Rate	44.7%	46.9%	49.5%	44.3%	48.0%	40.0%	39.1%	48.2%
BALANCE SHEET RATIOS								
Work-in-Process per Employee	\$8,006	\$8,269	\$7,991	\$9,686	\$6,948	\$12,542	\$8,667	\$7,474
Total Assets per Employee	\$96,260	\$109,410	\$90,041	\$91,444	\$95,096	\$113,606	\$106,001	\$86,162
Total Liabilities per Employee	\$42,732	\$43,278	\$41,829	\$37,575	\$41,711	\$57,254	\$53,575	\$34,686

	ALL PARTICIPANTS	HIGH PERFORMERS	ALL OTHER FIRMS	SMALL	MEDIUM		ARCHITECTURE	ENGINEERING
	PARTICIPANTS	PERFORMERS	FIRMS	(1-50 EMP)	(51-250 EMP)	(250+ EMP)	OR A/E	OR E/A
BALANCE SHEET RATIOS (CONTINUED)	<b>*</b> 45 0 0 0	A= 4 = 0 =	<b>*</b> 40.050	<b>*</b> • • • • • • •	<b></b>	<b>*</b> = 0 0 01	<b>A</b> 17100	<b>A</b> 45 <b>A</b> 44
Total Equity per Employee	\$45,309	\$54,537	\$43,856	\$44,330	\$44,775	\$50,001	\$47,132	\$45,241
Return on Assets	\$9.7%	25.0%	5.7%	6.9%	16.0%	5.9%	7.6%	12.3%
Return on Equity	18.8%	42.3%	9.6%	10.7%	26.0%	16.3%	17.5%	22.3%
Backlog - End of Year per Employee	\$129,778	\$133,343	\$126,455	\$95,605	\$129,032	\$152,816	\$133,540	\$123,054
Backlog in Months	6.0	6.1	7.5	1.4	7.5	8.2	5.1	7.2
Current Ratio	2.75	2.91	2.70	2.71	2.84	2.15	2.29	3.45
Debt to Equity Ratio	0.85	0.73	0.92	0.83	0.83	1.12	1.10	0.77
INCOME STATEMENT DETAIL (PER EMPLOYEE)								
TOTAL REVENUE								
Total Revenue per Employee	\$187,067	\$220,967	\$183,075	\$176,136	\$192,157	\$217,101	\$226,400	\$170,077
DIRECT EXPENSES								
Consultants per Employee	\$22,258	\$33,475	\$21,323	\$24,231	\$20,541	\$28,873	\$56,877	\$12,157
Bad Debt per Employee	\$562	\$448	\$645	\$567	\$605	\$331	\$897	\$436
All Other Direct Expenses per Employee	\$2,874	\$1,462	\$2,952	\$4,076	\$2,057	\$1,489	\$2,500	\$3,278
Total Direct Expenses per Employee	\$41,636	\$37,555	\$43,656	\$56,240	\$34,320	\$57,762	\$79,879	\$22,051
NET REVENUE								
Net Revenue per Employee	\$150,853	\$173,834	\$139,527	\$139,527	\$154,860	\$164,563	\$152,505	\$148,336
DIRECT LABOR								
Direct Labor per Employee	\$51,701	\$51,263	\$51,701	\$51,539	\$51,822	\$51,133	\$53,445	\$50,429

	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	\$104,555	\$122,545	\$96,754	\$99,794	\$105,224	\$114,075	\$111,742	\$100,511
INDIRECT LABOR								
Vacation, Holiday, Sick & Personal per Employee	\$8,042	\$7,616	\$8,236	\$7,395	\$8,046	\$9,563	\$8,217	\$7,573
Marketing per Employee	\$4,821	\$3,489	\$5,542	\$4,201	\$5,526	\$3,935	\$6,160	\$3,958
All Other Indirect Labor per Employee	\$21,159	\$21,529	\$20,949	\$20,001	\$21,326	\$22,037	\$21,333	\$21,145
Total Indirect Labor per Employee	\$34,079	\$34,520	\$33,734	\$30,544	\$34,356	\$36,249	\$34,711	\$33,680
LABOR-RELATED EXPENSES								
Statutory Taxes per Employee	\$6,800	\$6,934	\$6,760	\$6,828	\$6,787	\$6,797	\$6,981	\$6,636
Workers' Comp. per Employee	\$260	\$245	\$260	\$273	\$260	\$254	\$260	\$255
GroupHealth, Life, Etc. per Employee	\$6,942	\$6,614	\$7,198	\$6,374	\$7,483	\$7,198	\$6,433	\$7,483
401(k) Match, Pension Plan, Etc. per Employee	\$2,763	\$3,112	\$2,660	\$2,882	\$2,653	\$2,776	\$2,582	\$2,763
All Other Labor-Related Expenses per Employee	\$1,111	\$1,130	\$1,079	\$1,478	\$929	\$910	\$1,046	\$1,130
Total Other Labor-Related Expenses per Employee	\$17,378	\$18,576	\$16,921	\$16,711	\$17,949	\$18,576	\$17,197	\$17,985
OTHER STAFF EXPENSES								
Professional Licenses, Registrations, Dues per Employee	\$773	\$755	\$766	\$870	\$730	\$794	\$789	\$730
MARKETING EXPENSES (NON-LABOR)								
Marketing Expenses (marketing and business development expenses including materials, conference expenses, travel, etc.)	\$997	\$1,097	\$959	\$1,010	\$1,005	\$803	\$1,484	\$666

	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	\$1,763	\$1,714	\$1,786	\$1,900	\$1,729	\$1,606	\$1,897	\$1,556
Other Business Taxes per Employee	\$393	\$455	\$356	\$478	\$310	\$422	\$500	\$331
All Other Corporate Expenses per Employee	\$1,853	\$1,635	\$1,944	\$2,222	\$1,727	\$1,767	\$2,279	\$1,620
Total Corporate Expenses per Employee	\$4,346	\$4,450	\$4,369	\$4,550	\$4,058	\$3,954	\$4,764	\$3,681
TOTAL OVERHEAD								
Total Overhead Expenses per Employee	\$76,567	\$79,320	\$73,649	\$72,000	\$75,123	\$79,607	\$79,237	\$71,967
OPERATING PROFIT								
Operating Profit (Loss) per Employee	\$24,835	\$44,533	\$18,005	\$20,928	\$25,530	\$24,682	\$25,151	\$24,757
OPERATING PROFIT								
Total Other Labor-Related Expenses per Employee	\$17,378	\$18,576	\$16,921	\$16,711	\$17,949	\$18,576	\$17,197	\$17,985
INTEREST, BONUS, OTHER								
Interest-Net per Employee	\$175	\$132	\$255	\$175	\$144	\$558	\$104	\$267
Bonuses per Employee	\$8,094	\$12,909	\$6,137	\$7,327	\$8,328	\$8,270	\$9,554	\$7,483
Other (Income) or Expense	-\$42	-\$29	-\$60	-\$3	-\$75	-\$157	\$7	-\$100
PRE-TAX INCOME (LOSS)								
Pre-Tax Income (Loss) per Employee	\$12,214	\$26,853	\$8,550	\$8,131	\$15,786	\$7,881	\$9 <i>,</i> 155	\$14,452
TAXES								
Taxes per Employee	\$444	\$1,009	\$347	\$463	\$460	\$373	\$434	\$462
NET PROFIT								
Net Profit (Loss) per Employee	\$11,506	\$23,800	\$7,570	\$8,256	\$13,832	\$5,850	\$8,947	\$12,623

	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	\$21,088	\$28,999	\$19,100	\$19,572	\$22,663	\$17,021	\$26,145	\$20,180
Accounts Receivable per Employee	\$37,796	\$45,554	\$36,684	\$32,000	\$40,046	\$39,319	\$45,992	\$32,856
Work-In-Process per Employee	\$8,006	\$8,269	\$7,991	\$9,686	\$6,948	\$12,542	\$8,667	\$7,474
Prepaid Expenses per Employee	\$2,628	\$2,759	\$2,574	\$1,952	\$2,911	\$2,826	\$2,939	\$2,426
Other Current Assets per Employee	\$807	\$843	\$674	\$807	\$660	\$1,735	\$640	\$933
Total Current Assets per Employee	\$76,281	\$90,827	\$72,546	\$67,382	\$76,320	\$85,973	\$90,186	\$66,942
FIXED ASSETS								
Fixed Assets (except Goodwill) per Employee	\$25,582	\$31,225	\$25,490	\$24,132	\$26,104	\$31,874	\$25,246	\$27,518
Depreciation per Employee	-\$18,171	-\$19,542	-\$17,481	-\$12,625	-\$18,276	-\$19,556	-\$15,175	-\$19,642
Goodwill (net of amortization) per Employee	\$3,112	\$2,275	\$3,498	\$2,937	\$2,625	\$8,163	\$3,479	\$2,973
Total Fixed Assets per Employee	\$9,957	\$9,444	\$10,078	\$8,281	\$9,489	\$19,552	\$9,211	\$10,215
OTHER LONG-TERM ASSETS								
Long-Term Notes/Loans Receivable per Employee	\$O	\$O	\$0	\$0	\$0	\$0	\$O	\$O
Other Long-Term Assets per Employee	\$O	\$0	\$0	\$O	\$O	\$772	\$O	\$O
Total Other Long Term Assets per Employee	\$O	\$475	\$0	\$0	\$0	\$1,044	\$O	\$80
TOTAL ASSETS								
Total Assets per Employee	\$96,260	\$109,410	\$90,041	\$91,444	\$95,096	\$113,606	\$106,001	\$86,162

	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	\$4,675	\$4,434	\$4,888	\$4,525	\$4,675	\$4,942	\$11,476	\$1,887
Accounts Payable - Vendors per Employee	\$1,038	\$605	\$1,209	\$928	\$1,037	\$2,510	\$607	\$1,329
Total Accounts Payable per Employee	\$4,814	\$4,343	\$4,972	\$4,194	\$4,907	\$10,449	\$11,941	\$3,059
ACCRUED EMPLOYEE EXPENSE								
Accrued Employee Salaries per Employee	\$2,468	\$2,380	\$2,470	\$2,867	\$2,214	\$2,466	\$2,532	\$2,232
Accrued Employee Vacation, Sick, Etc. per Employee	\$3,530	\$3,868	\$3,497	\$3,523	\$3,470	\$4,200	\$4,000	\$3,247
Other Accrued Employee Expense per Employee	\$2,112	\$2,849	\$1,714	\$1,053	\$2,417	\$3,693	\$2,211	\$2,083
Total Accrued Employee Expenses per Employee	\$6,174	\$6,927	\$6,039	\$4,792	\$6,003	\$8,650	\$6,519	\$6,021
OTHER CURRENT LIABILITIES								
Line-of-Credit and Short-Term Notes Outstanding per Employee	\$6,384	\$9,062	\$5,806	\$9,700	\$6,133	\$3,400	\$9,700	\$5,039
Current Taxes per Employee	\$286	\$228	\$286	\$240	\$352	\$212	\$214	\$350
Other Current Liabilities per Employee	\$4,253	\$4,648	\$3,956	\$3,828	\$4,322	\$6,994	\$7,569	\$2,685
Total Other Current Liabilities per Employee	\$10,795	\$11,986	\$10,228	\$11,795	\$9,939	\$10,857	\$18,025	\$7,376
TOTAL CURRENT LIABILITIES								
Total Current Liabilities per Employee	\$24,859	\$24,845	\$24,911	\$19,909	\$25,409	\$31,434	\$35,415	\$17,544
LONG-TERM LIABILITIES								
Long-Term Debt per Employee	\$9,447	\$5,131	\$11,738	\$10,746	\$7,385	\$16,065	\$7,564	\$10,445
Deferred Taxes per Employee	\$0	\$O	\$0	\$O	\$O	\$O	\$O	\$O
Other Long-Term Liabilities per Employee	\$0	\$O	\$0	\$O	\$0	\$3,648	\$O	\$O

	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	\$15,177	\$13,639	\$15,705	\$15,606	\$13,726	\$26,209	\$15,180	\$14,504
STOCKHOLDERS' EQUITY								
Stock & Additional Paid-In Capital per Employee	\$2,713	\$3,008	\$2,708	\$4,739	\$1,512	\$15,982	\$2,713	\$3,826
Distribution/Dividends - Current Year Only per Employee	-\$7,893	-\$9,898	-\$7,576	-\$10,517	-\$7,596	-\$7,945	-\$11,551	-\$7,596
Principal's Equity - Long-Term Notes per Employee	-\$260	-\$2,050	-\$581	-\$260	\$258	-\$1,170	-\$18	-\$260
Previous Years Retained Earnings per Employee	\$37,170	\$39,778	\$35,080	\$37,616	\$37,170	\$35,002	\$41,752	\$36,747
Current Net Profit (Loss) per Employee	\$12,444	\$24,575	\$10,093	\$12,139	\$13,970	\$10,708	\$9,709	\$14,308
Other per Employee	-\$3,078	-\$2,537	-\$3,065	-\$518	-\$4,632	-\$1,548	-\$14,280	-\$265
Total Stockholders' Equity per Employee	\$45,282	\$54,537	\$43,677	\$44,330	\$44,589	\$49,034	\$47,036	\$45,226
Total Liabilities & Stockholders' Equity per Employee	\$95,880	\$109,175	\$87,171	\$94,753	\$90,772	\$113,606	\$105,568	\$85,273
SECTION METRICS								
BUSINESS DEVELOPMENT METRICS								
Net Revenue Growth Forecast	4.2%	1.4%	9.7%	-29.3%	7.8%	5.8%	0.0%	6.2%
Win Rate	44.7%	46.9%	49.5%	44.3%	48.0%	40.0%	39.1%	48.2%
Capture Rate	45.8%	40.0%	47.2%	47.9%	43.0%	47.4%	40.6%	44.9%

	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			THUID	(I GO LINIT)		(2001 LIMI )		
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client A	14%	13%	16%	20%	12%	8%	16%	13%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client B	8%	7%	8%	10%	8%	4%	10%	7%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Client C	5%	5%	6%	8%	5%	3%	7%	5%
What percentage of your firm's net revenue is contributed by your firm's top three clients? Combined	37%	28%	36%	51%	32%	21%	47%	32%
PROJECT MANAGEMENT METRICS								
What percentage of your firm's current projects are being reported as on or under budget? (Average)	68%	78%	66%	65%	69%	83%	61%	74%
What percentage of your firm's current projects is being reported as on or ahead of schedule? (Average)	62%	73%	62%	62%	60%	75%	59%	65%
Firms that complete internal project performance evaluations (Mean)	50%	50%	51%	35%	60%	70%	49%	54%
Firms measuring client satisfaction (Mean)	43%	43%	40%	38%	42%	67%	34%	50%
HUMAN CAPITAL MANAGEMENT METRICS								
Staff Growth/Decline	0.0%	1.0%	0.0%	0.0%	1.5%	-1.4%	0.0%	2.7%
Employee Turnover	11.8%	11.8%	12.2%	9.5%	12.5%	12.7%	11.8%	12.1%
Voluntary Turnover	6.7%	7.8%	6.9%	4.5%	7.2%	8.0%	5.9%	7.7%
Involuntary Turnover	3.6%	2.1%	4.5%	0.0%	4.5%	3.9%	3.4%	3.9%
Average Time to Fill Position	31–60 days	31–60 days	31–60 days	31–60 days	31–60 days	60–90 days	31–60 days	60–90 days

	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	44	62	42	17	70	309	32	53.5
Marketing and Business Development	2	3	2	1	4	10	2	3
Financial/Accounting	3	3	2	1	3	9.5	2	3
Technology/IT	1	1	1	0	1	8	1	1
Human Resources	1	1	1	0	1	4	1	1
Administrative or Clerical	2	2	2	1	3	14	1	3
Other Executives	2	3	2	1	3	7	2	3
Other Employees	2	3	1	0	2	8	0.5	4

### **In Collaboration With**



#### American Council of Engineering Companies

The American Council of Engineering Companies (ACEC) is the business association of the nation's engineering industry. Founded in 1906, ACEC is a national federation of 52 state and regional organizations representing more than 5,600 engineering firms and 600,000+ engineers, surveyors, architects and other specialists nationwide. ACEC member firms drive the design of America's infrastructure and built environment.





#### Association of Consulting Engineering Companies | Canada

The Association of Consulting Engineering Companies (ACEC) is a not-for profit organization that has been the voice of Canadian consulting engineering companies since it was founded in 1925. We represent the commercial interests of businesses that provide professional engineering services, to both the public and the private sector. Our members' services include planning, designing and implementing all types of engineering projects, and providing independent advice and expertise in a wide range of engineering-related fields. ACEC's member companies directly influence virtually every aspect of quality of life in Canadaeconomic, social and environmental. Because engineering is a regulated profession, every individual employed by our members is required by law to act "with fidelity to the public interest." ACEC is governed by its nearly 400 members: independent consulting engineering companies, organized into 12 provincial and territorial Member Organizations.

### The American Institute of Architects

Founded in 1857, AIA consistently works to create more valuable, healthy, secure, and sustainable buildings, neighborhoods and communities. Through more than 200 international, state and local chapters, AIA advocates for public policies that promote economic vitality and public wellbeing. AIA provides members with tools and resources to assist them in their careers and business as well as engaging civic and government leaders and the public to find solutions to pressing issues facing our communities, institutions, nation and world. Members adhere to a code of ethics and conduct to ensure the highest professional standards.



### Society for Marketing Professional Services

The Society for Marketing Professional Services (SMPS) is the only organization dedicated to creating business opportunities in the A/E/C industries. With more than 7,100 members, SMPS provides leadership and professional development programs, industry research, business-building events, and vital marketing resources. Through SMPS, A/E/C professionals in North America tap into powerful networks to form project teams, secure business referrals and intelligence, and benchmark performance. The Society is committed to validating the practice of marketing and business development as essential to the success of all professional services firms. For more than 35 years, Deltek has offered software and information solutions that deliver business intelligence, project management and collaboration. Deltek's industry-focused expertise empowers firms to manage successful projects while maximizing productivity and revenue. Deltek customers include 90% of the ENR Top 10 design firms and more than 80% of the ENR Top 500 who use our solutions to:

- Find and manage federal, state, local and educational opportunities
- Nurture client relationships and improve win rates
- Deliver projects on time and under budget
- Manage your projects and firm-wide information
- Find, recruit and retain the best and brightest talent
- Streamline the financial management of their firms
- Gain complete visibility into all aspects of their business

### Deltek for Architecture & Engineering Firms

Get the essential companion piece to the Deltek Clarity Report, the <u>one-page scorecard</u>. See at a glance if your firm is within industry averages, a high-performer, or if you still have a ways to go!

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Better software means better projects. Deltek is the leading global provider of enterprise software and information solutions for project-based businesses. More than 30,000 organizations and millions of users in over 80 countries around the world rely on Deltek for superior levels of project intelligence, management and collaboration. Our industry-focused expertise powers project success by helping firms achieve performance that maximizes productivity and revenue.

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