

# MN Construction Industry Assessment **2017-2018**



Your Trusted Resource





# Executive Summary

## **The AGC of Minnesota Construction Industry**

**Assessment** provides an in-depth look at the current and future status of Minnesota's construction industry and construction economy. The Industry Assessment enters its fourteenth year of surveying all segments of the construction marketplace - Architects, Engineers and Contractors. Contractor responses are segregated in the survey by division between the commercial building and highway sectors, and by general contractor, specialty subcontractor and suppliers.

Overall, the 2017 survey depicts a strengthened construction market that continues to generate strong demand for construction services. The construction market has finally emerged from the shadows of the long and deep recession that impacted the sector far more severely than other areas of the overall economy. 2017 completed the ten year recovery of the 60,000 construction jobs lost to the Minnesota economy during the recession.

## **Key themes emerging from the 2017 survey responses:**

There is general industry optimism for a slightly improved or continuing stable market for construction and construction services in 2018 over 2017 demand. Tempering this optimism is the impact the industry is experiencing from a severe shortage of available workforce. The worker shortage extends to both field craft labor and professional front office personnel and is cited as the most significant recurring concern across all survey responses and all market segments.

Additionally, responses indicate a growing decline in the level of workforce readiness and technical skills mastery. This is a developing concern that when combined with the workforce shortage is viewed as a significant drag on construction business productivity and profitability. Lastly, there is frustration and growing disillusionment over the inability of government institutions to find bipartisan solutions that address the large backlog of public works and infrastructure investments. This deficiency is most commonly cited in responses from the transportation market sector.

The bullets listed help to further aggregate responses and summarize the various data sets. For readers wishing to explore the data in more detail please contact AGC of Minnesota 651.632.8929 | [agcmn.org](http://agcmn.org)



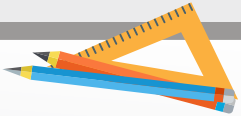
Technology changes and advances are cited as an overall positive influence on construction businesses across all market sectors.



Overall positive economic trends and market conditions indicate continued strong demand for equipment acquisitions across all market sectors.



# Executive Summary



Engineers and architects report significant difficulty in finding and filling qualified professional openings for project managers, supervisors and engineering professionals.

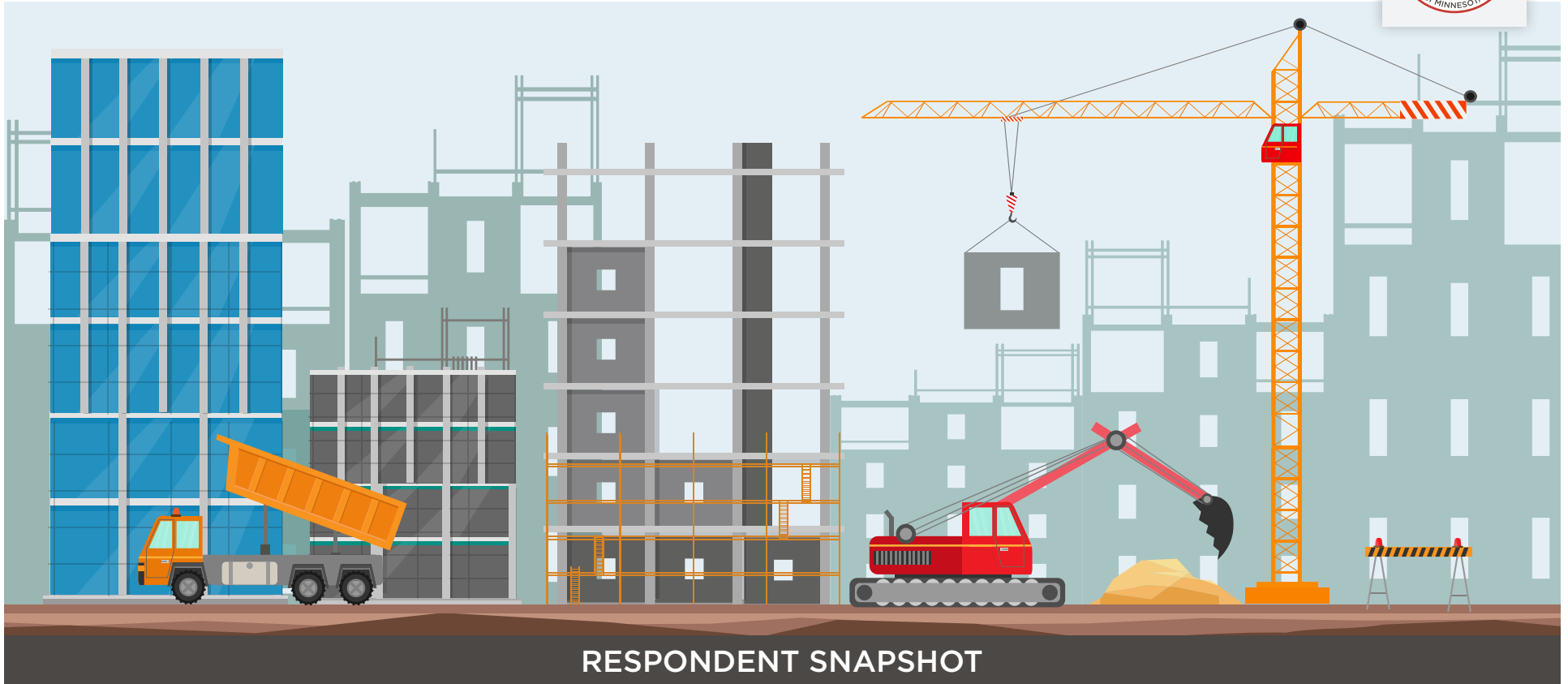


General and specialty contractors continue to face difficulty filling certain skilled craft labor positions... most prominent are operating engineers, cement masons and bricklayers.

- Most respondents report steady demand for workforce and plan to keep employment levels steady or to increase hiring in 2018 over 2017 levels.
- The availability of skilled construction workforce (both craft workers and office professionals) registers as the most prolific concern across all market sectors and all survey respondents.
- The decline of craft workforce skills and basic job readiness skills is a growing concern to employers and is cited as a drag on productivity and overall profitability. (Quote: "You don't learn to swim by getting thrown off a boat in the middle of the ocean, however, that is what is being required of our workforce.")
- Government regulation and specific project hiring and project participation (DBE) goals continue to register as a perennially high concern for both general and specialty building and highway market sectors. These requirements are cited as limiting factors to increased market opportunity and overall profitability.
- Finding new markets, managing client expectations and developing new leaders are the most significant concerns among architects and engineers.

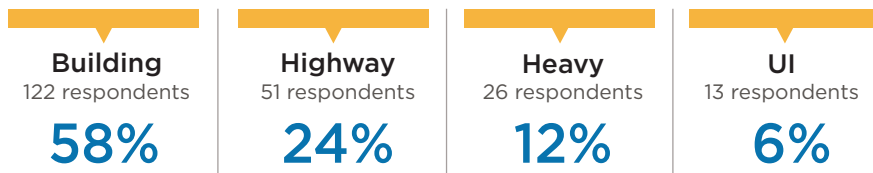


# MN Construction Industry Assessment 2017-2018



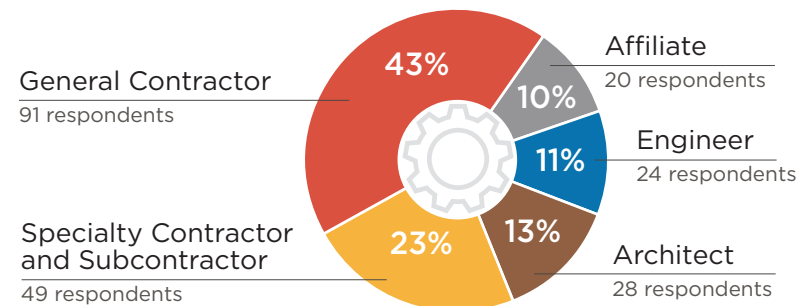
## RESPONDENT SNAPSHOT

### Primary Industry Sector



**SKILL, RESPONSIBILITY AND INTEGRITY ARE FUNDAMENTAL VALUES THAT CONTRIBUTE TO AGC CONTRACTORS' SUCCESS.**

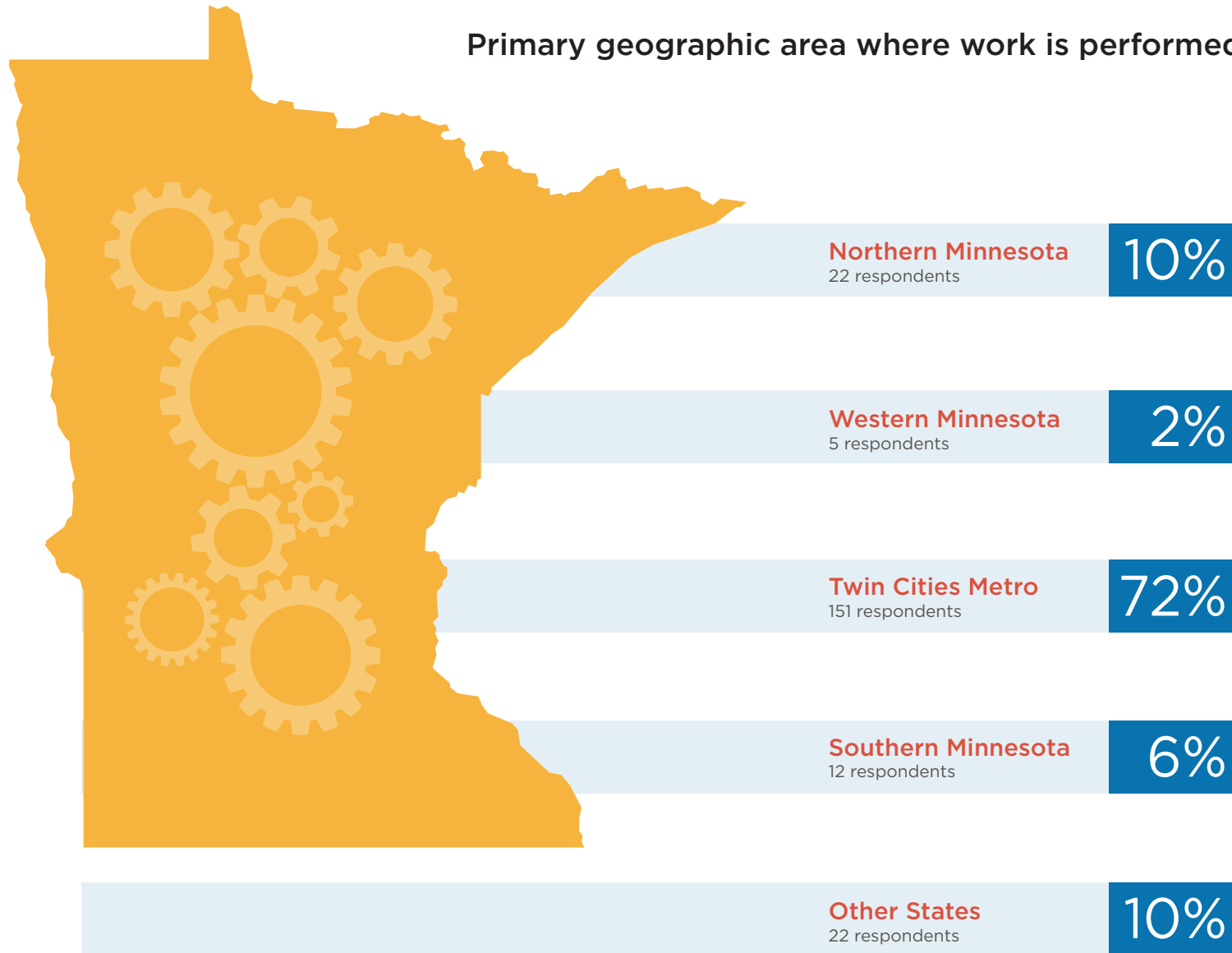
### Type of Firm





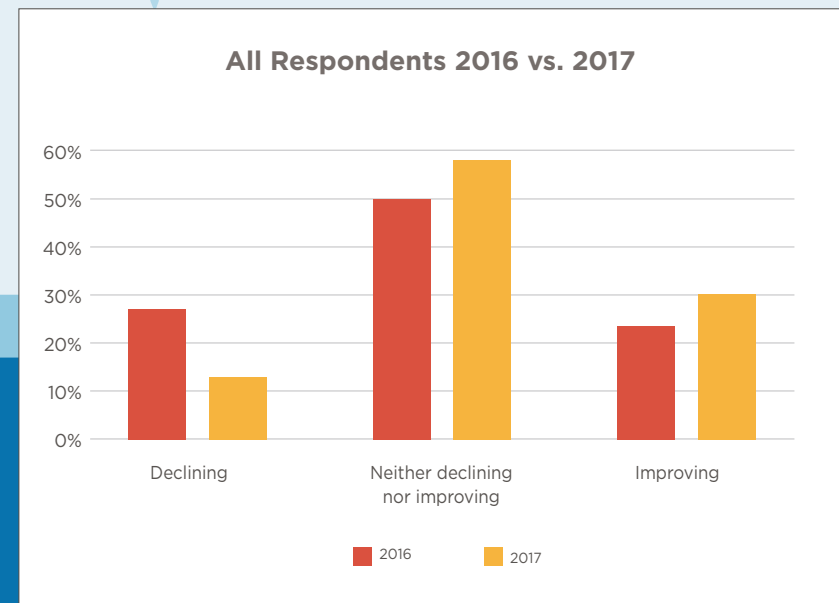


### Primary geographic area where work is performed



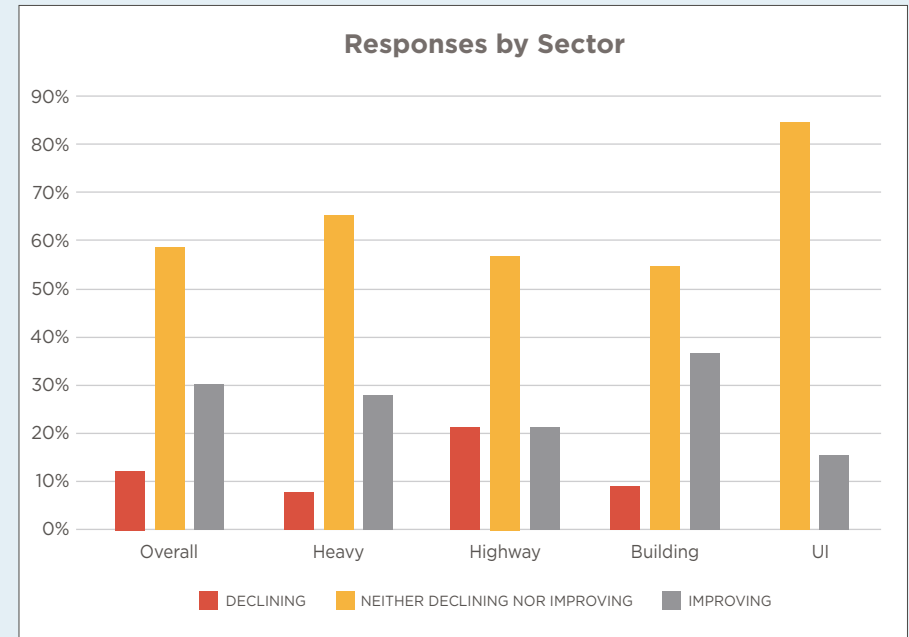
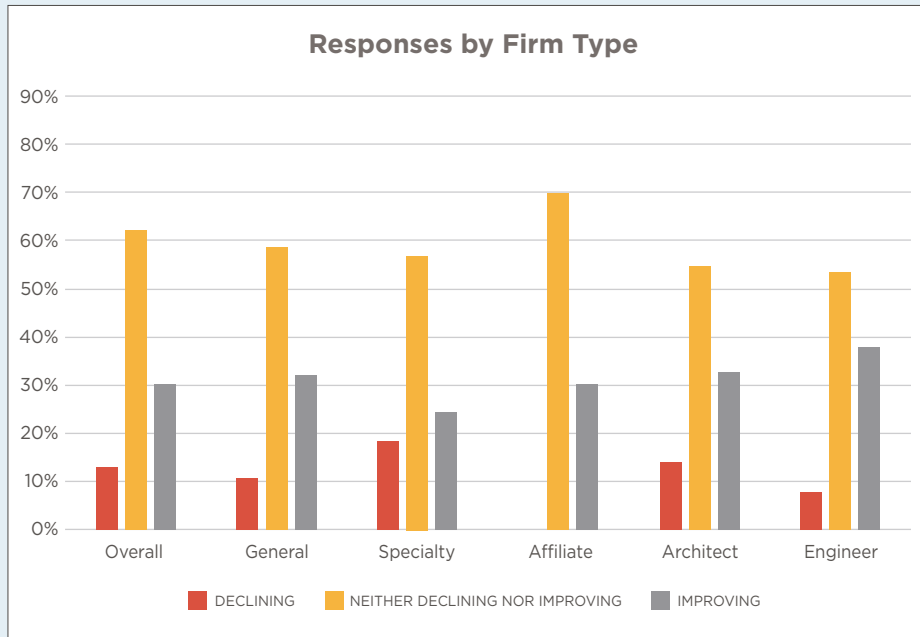
## Looking ahead: How respondents perceive market conditions affecting their firm

“ OVERALL, THE 2017 SURVEY DEPICTS A **STRENGTHENED CONSTRUCTION MARKET** THAT CONTINUES TO GENERATE STRONG DEMAND FOR CONSTRUCTION SERVICES. THERE IS **GENERAL INDUSTRY OPTIMISM** FOR A SLIGHTLY IMPROVED OR CONTINUING STABLE MARKET FOR CONSTRUCTION IN 2018. ”



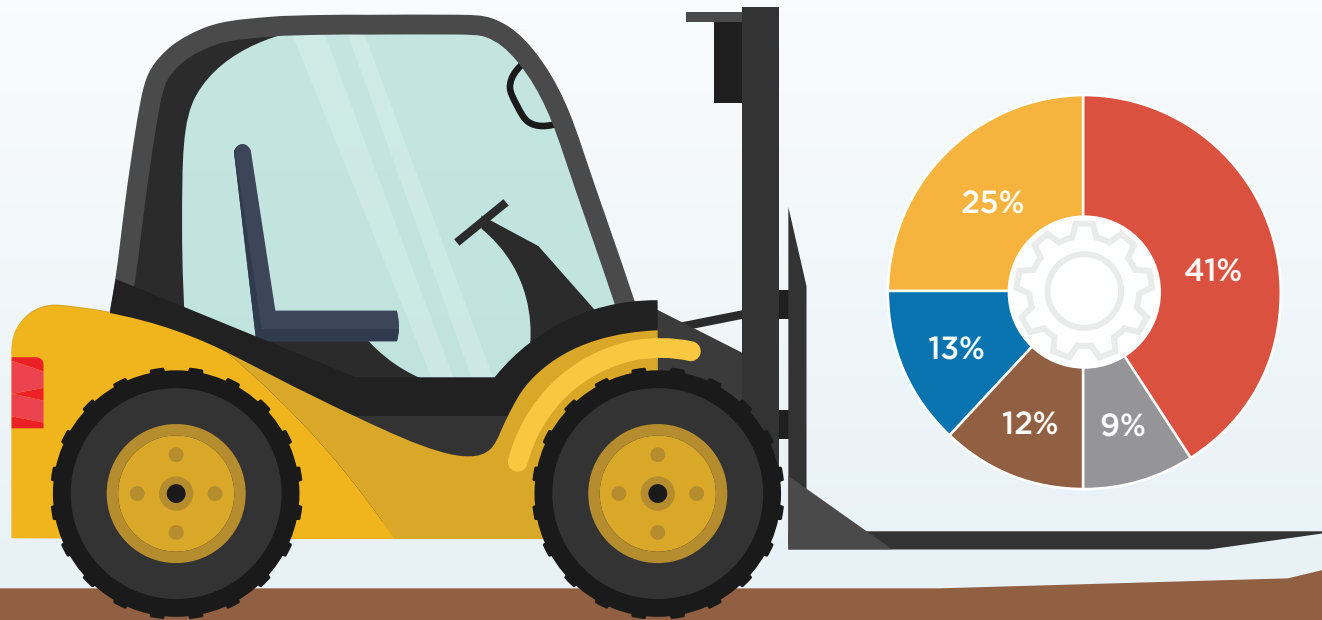


## Looking ahead: How respondents perceive market conditions affecting their firm



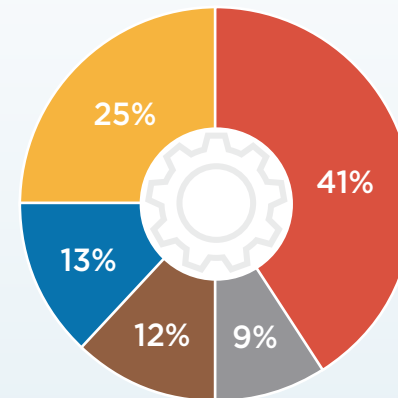


## Equipment plans for 2018



### OVERALL View for All Sectors

- Will purchase **new** equipment
- Will purchase **used** equipment
- Will lease equipment
- Will depend on tax laws
- Not applicable



41%

Will purchase **new**  
equipment in 2018



9%

Will purchase **used**  
equipment in 2018



12%

Will lease equipment  
in 2018



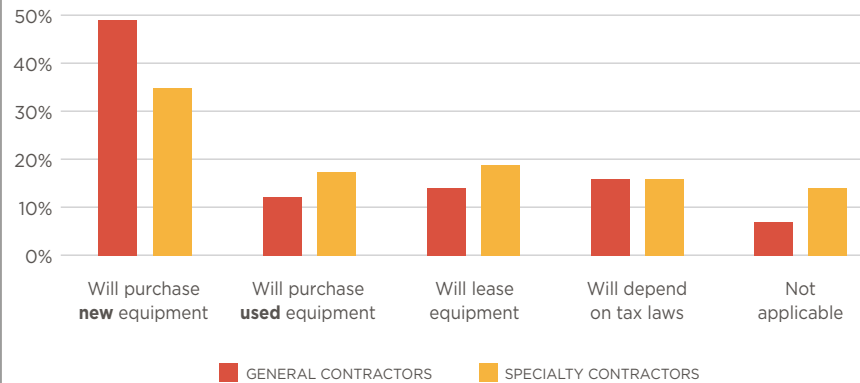
13%

Will depend on tax laws

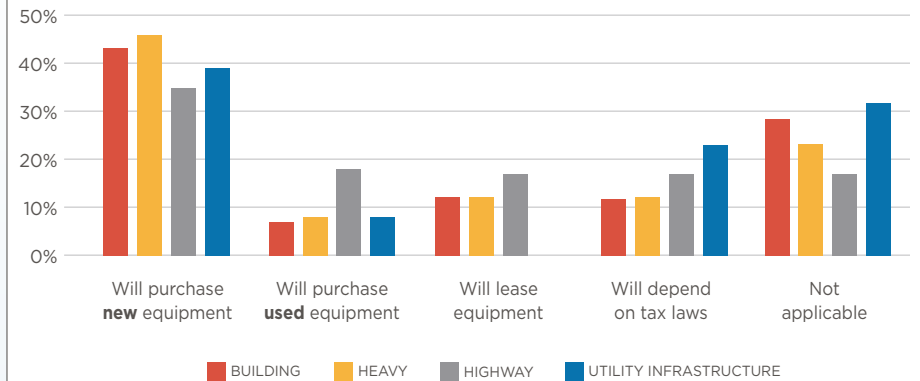


## Equipment plans for 2018

General and Specialty Contractors



By Sector



**49%** General Contractors plan to purchase new equipment in 2018

**35%** Specialty Contractors plan to purchase new equipment in 2018

**UNDER 20% OF THE BUILDING, HEAVY, HIGHWAY, AND UTILITY INFRASTRUCTURE SECTORS WILL PURCHASE USED EQUIPMENT IN 2018**

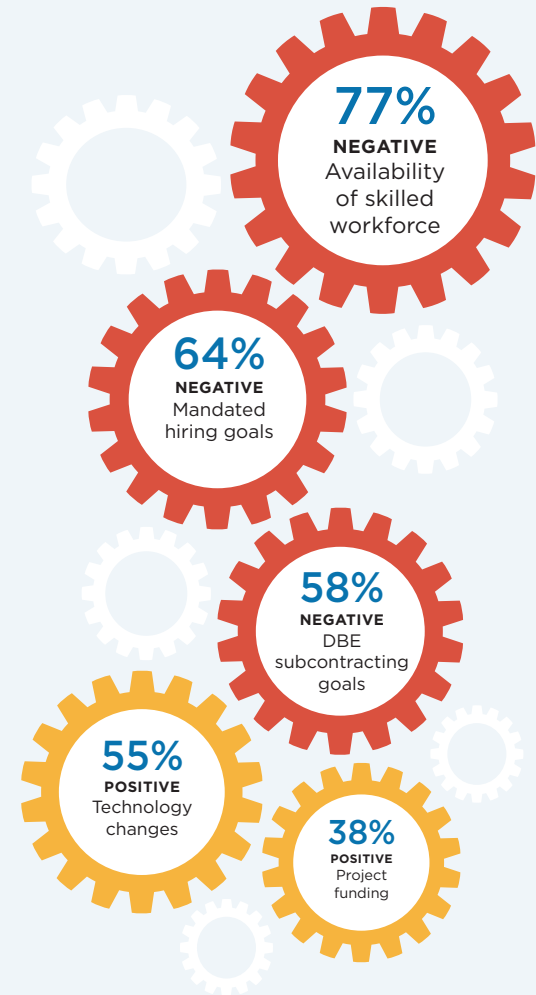
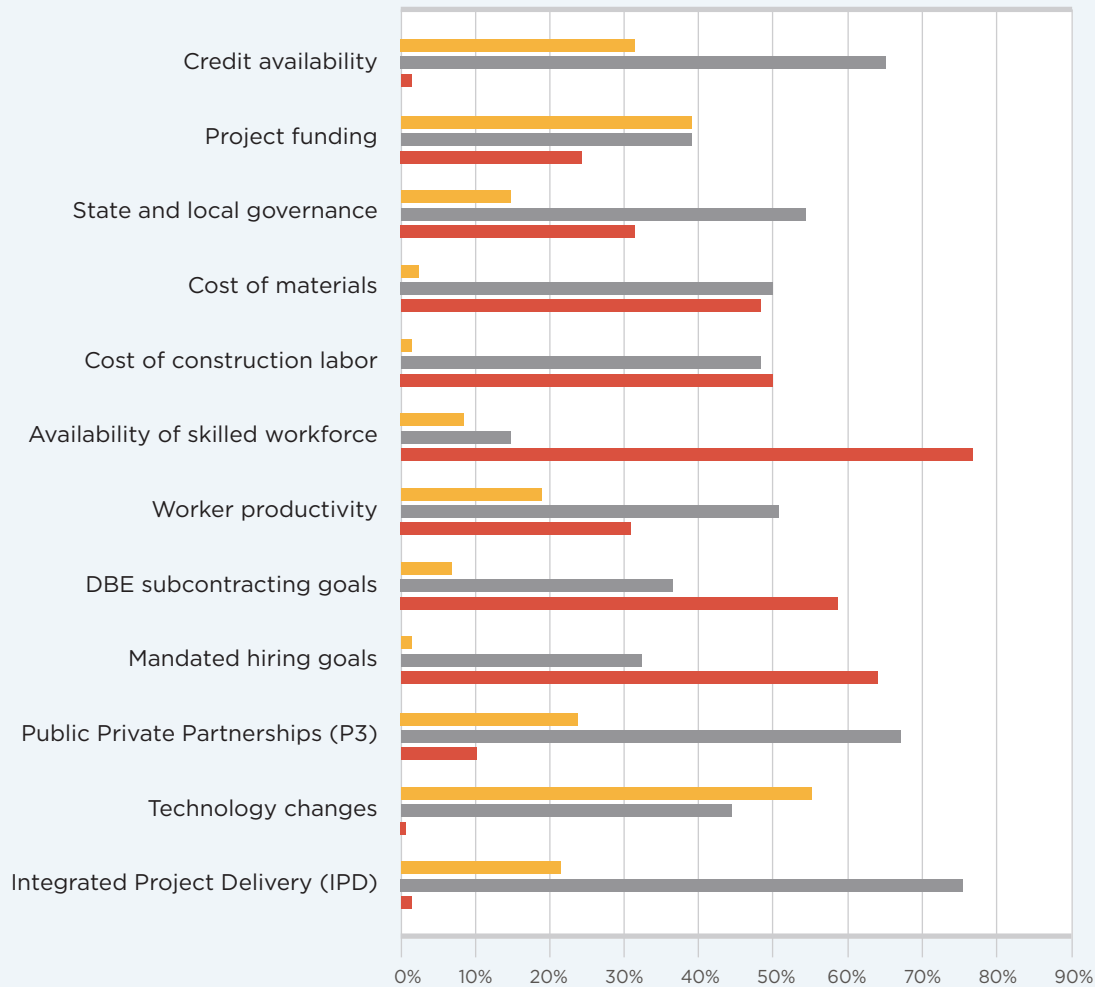




## Factors expected to impact respondent business through 2018

### All Responses

POSITIVELY NEUTRAL NEGATIVELY



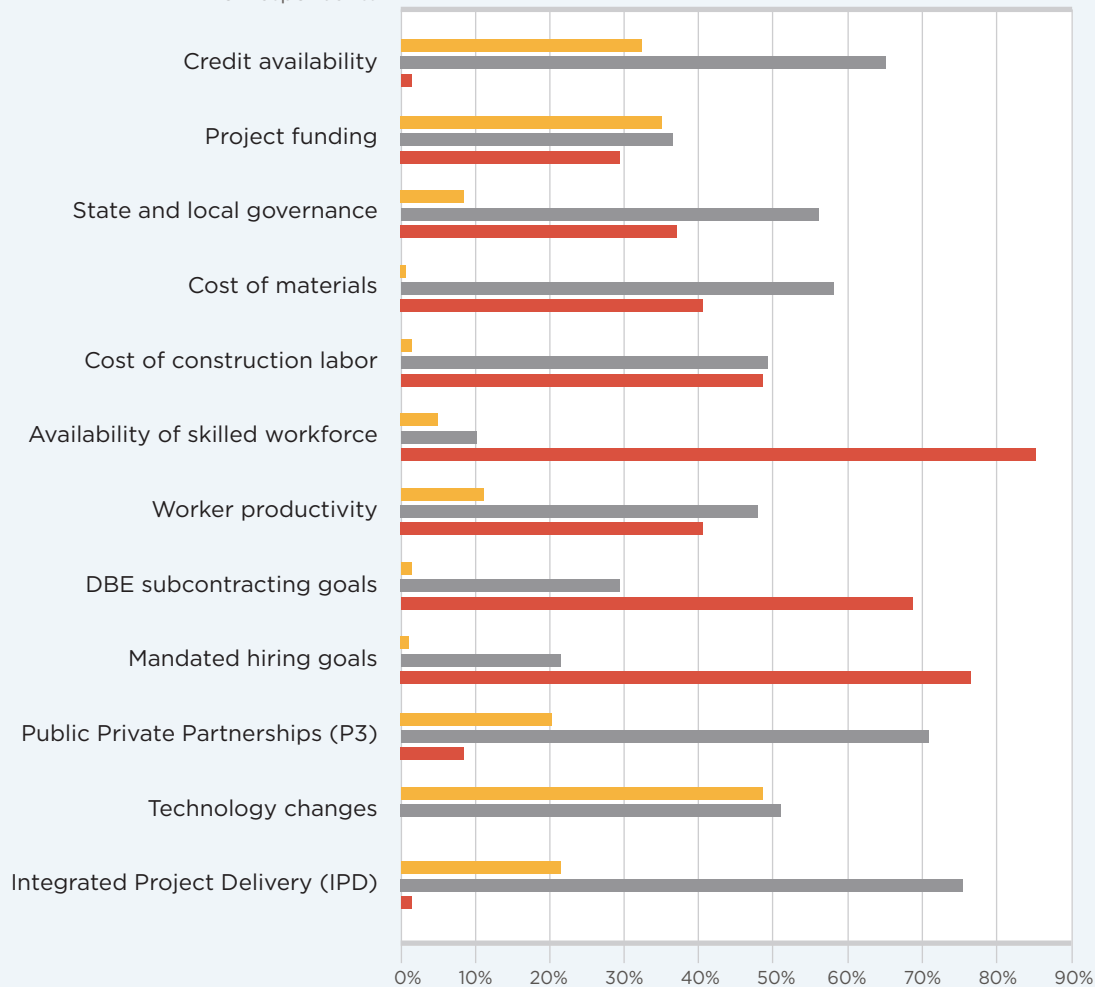


## Factors expected to impact respondent business through 2018

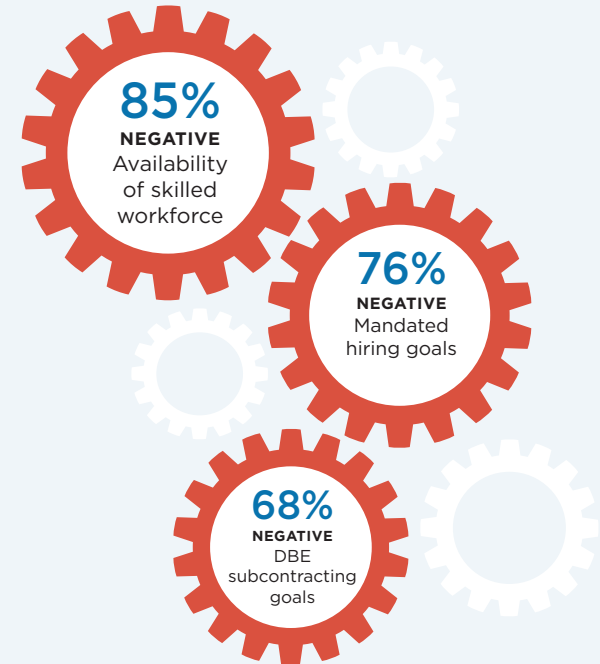
### General Contractors

91 respondents

POSITIVELY NEUTRAL NEGATIVELY



“ WE NEED TO HAVE OPTIONS TO BRING INTO THE CONSTRUCTION INDUSTRY 16-18 YEARS OLDS TO **MENTOR** THEM INTO THE **NEXT GENERATION** OF UNION & NON-UNION CONSTRUCTION. ”



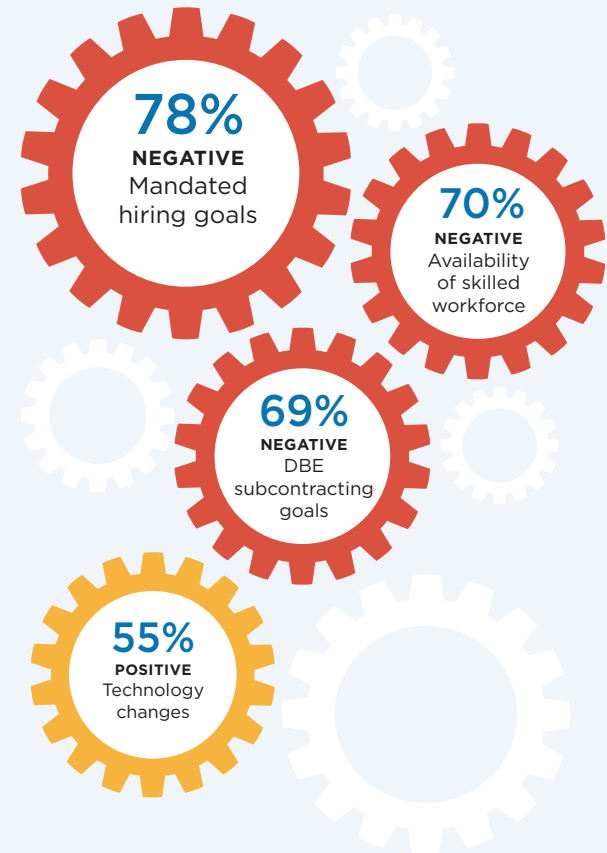
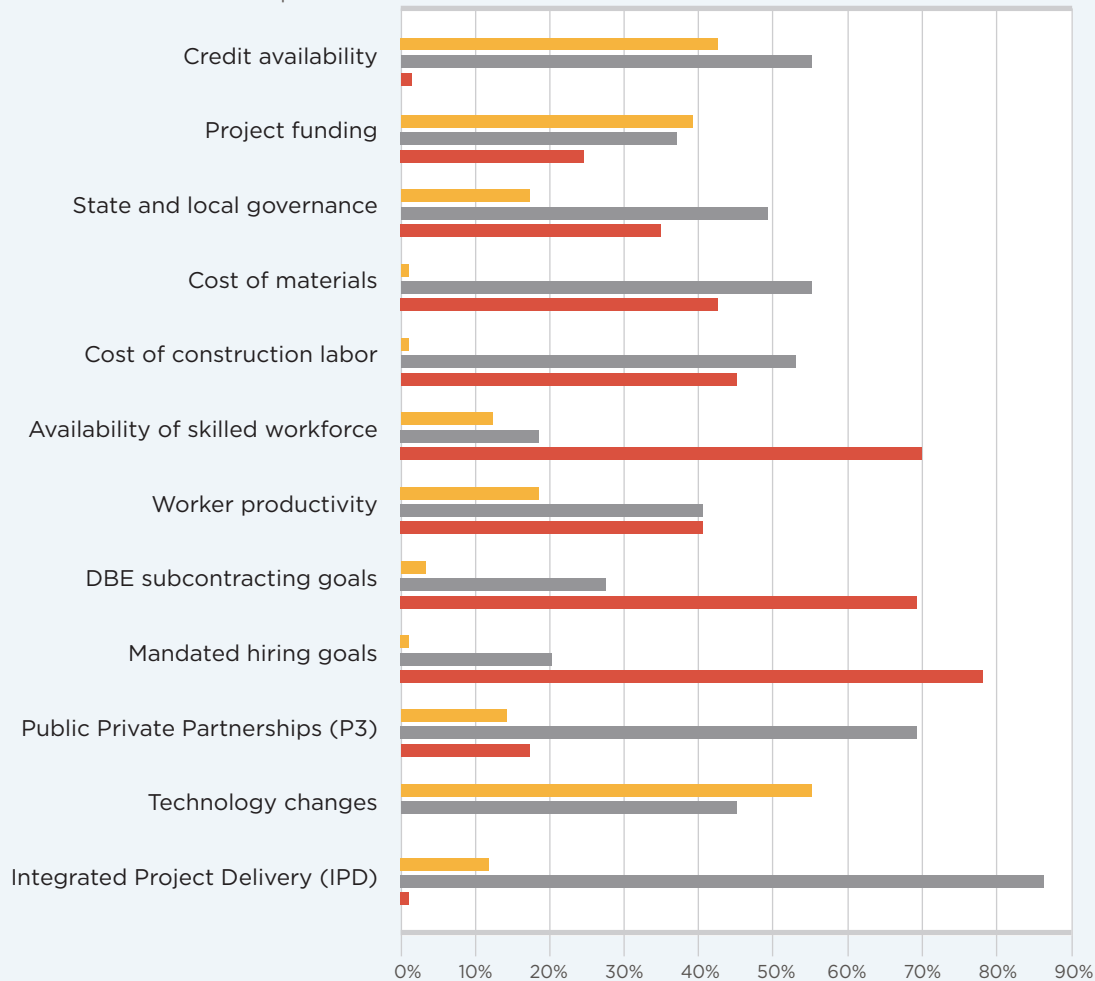


## Factors expected to impact respondent business through 2018

### Specialty/Subcontractors

49 respondents

POSITIVELY NEUTRAL NEGATIVELY



“ ALL FIRM TYPES ARE EXPERIENCING A **SHORTAGE** IN HIRING A **QUALIFIED WORKFORCE.** ”

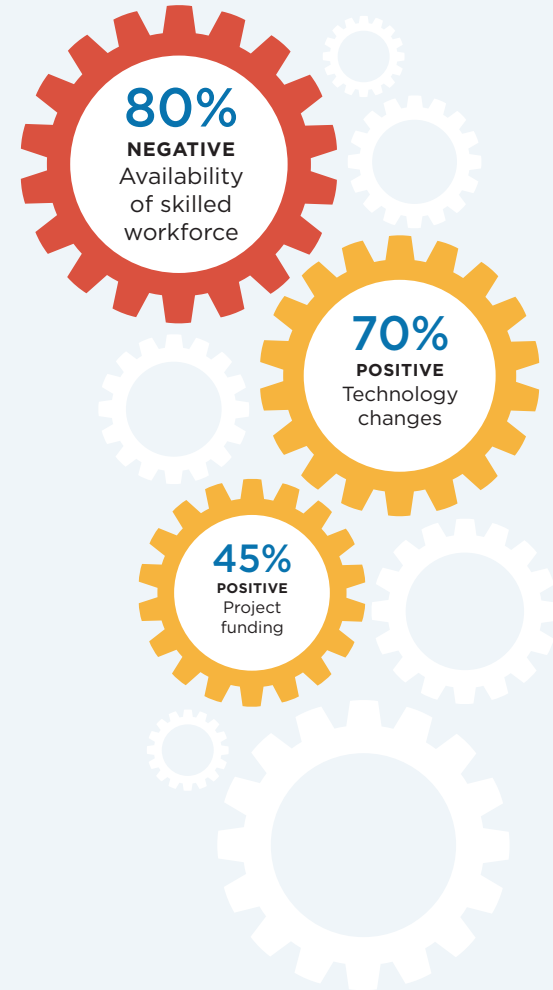
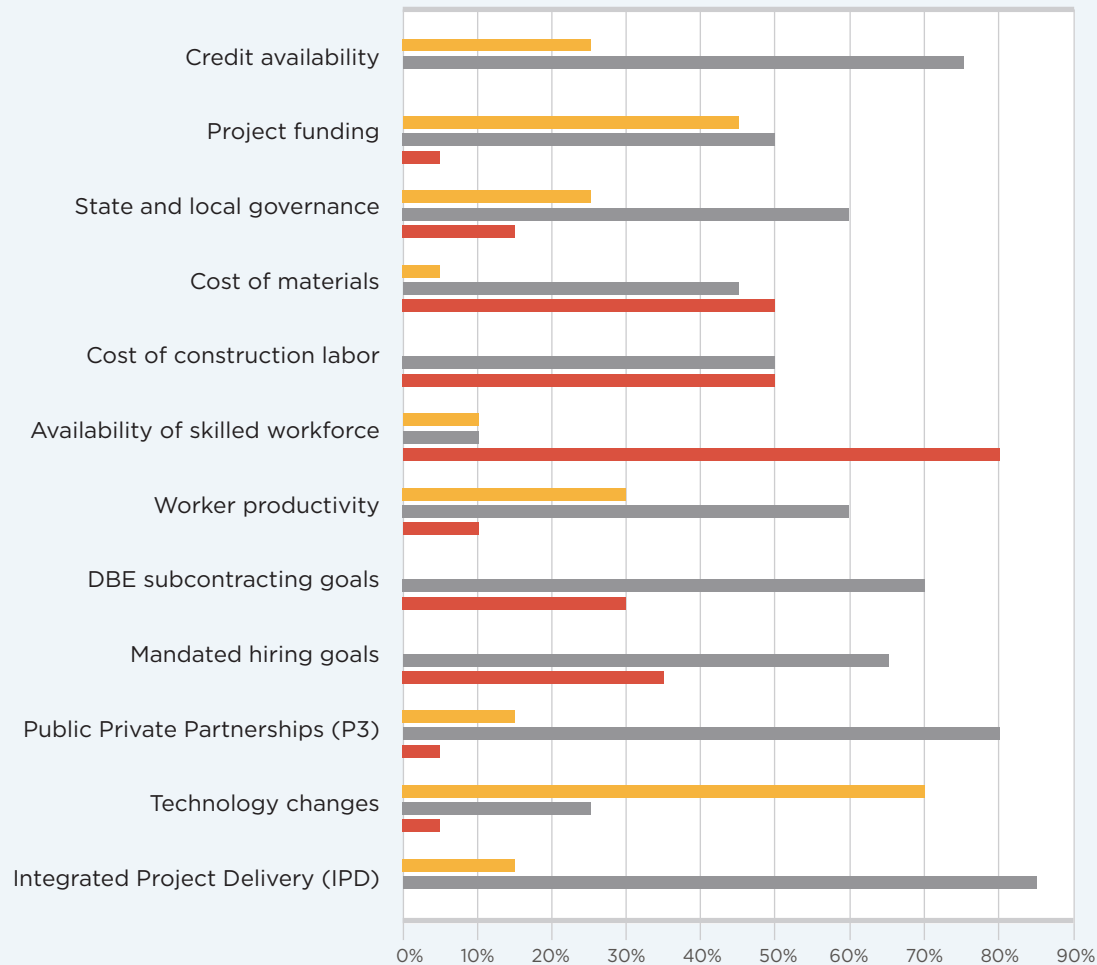


## Factors expected to impact respondent business through 2018

### Affiliates

20 respondents

POSITIVELY NEUTRAL NEGATIVELY

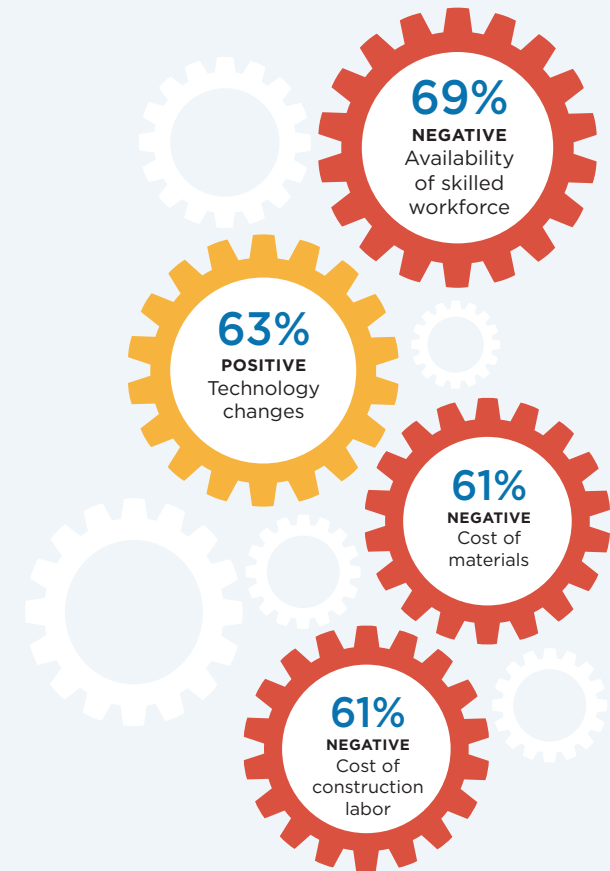
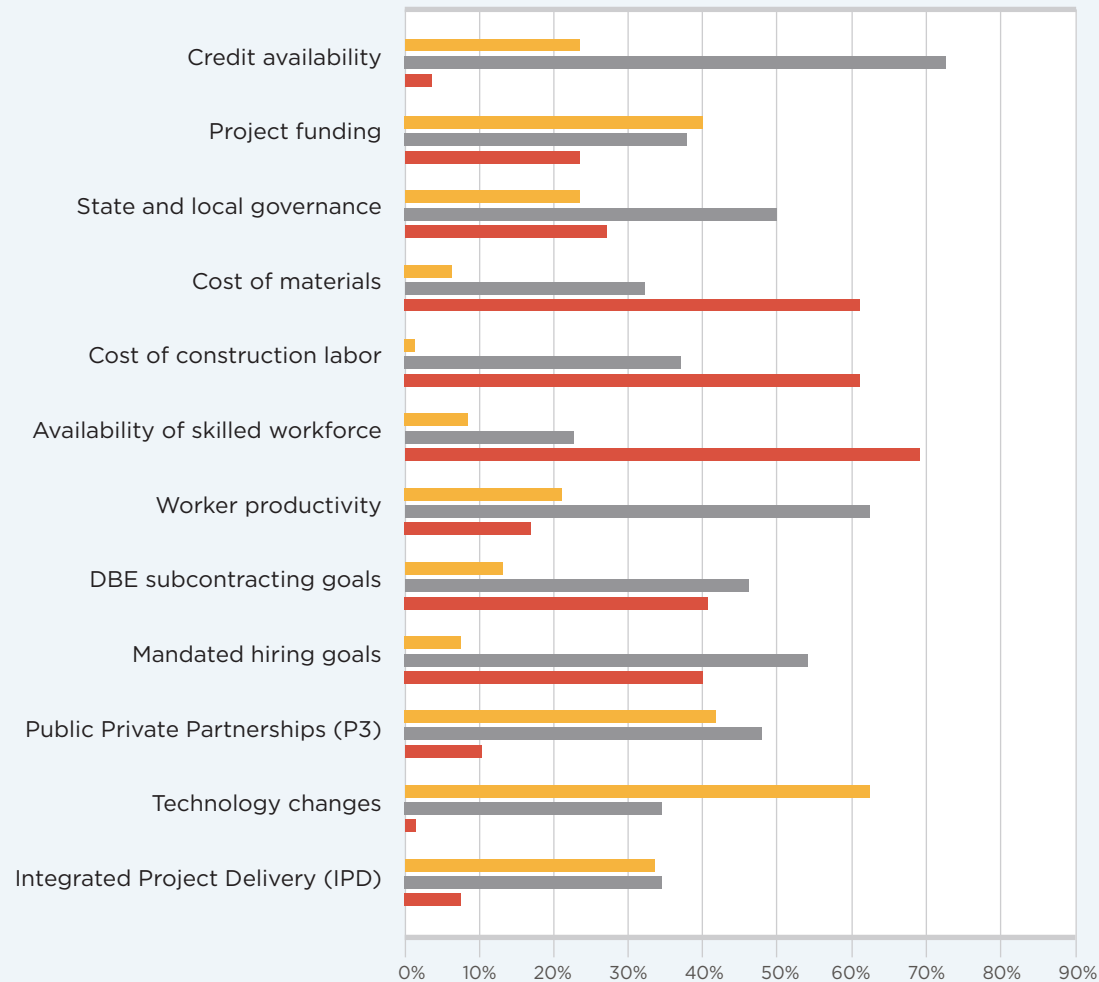




## Factors expected to impact respondent business through 2018

### Architects/Engineers 52 respondents

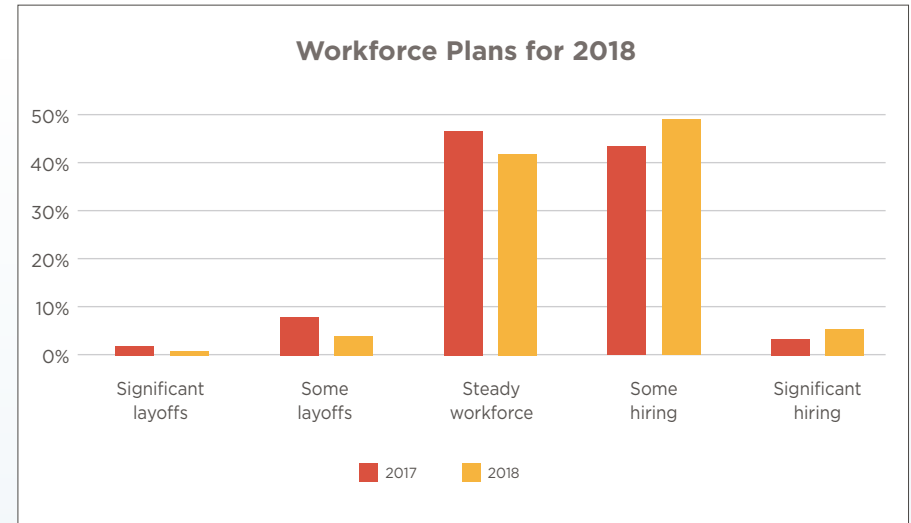
POSITIVELY NEUTRAL NEGATIVELY





## Workforce plans for 2018

“ MINNESOTA ENJOYS A **HIGHLY TRAINED** CONSTRUCTION INDUSTRY AND A VAST SELECTION OF ENGINEERING FIELDS. ”



41%

Steady workforce  
plans for 2018

49%

Some hiring  
plans for 2018

5%

Significant hiring  
plans for 2018

1%

Significant layoff  
plans for 2018



## Professional workforce hiring challenges

| General Contractors          | Least Difficult<br>1 | 2   | 3   | Most Difficult<br>4 | N/A |
|------------------------------|----------------------|-----|-----|---------------------|-----|
| Estimating Professionals     | 2%                   | 10% | 40% | 40%                 | 8%  |
| Project Managers/Supervisors | 3%                   | 21% | 41% | 33%                 | 2%  |
| Engineers                    | 3%                   | 22% | 23% | 11%                 | 41% |
| Business Development         | 8%                   | 26% | 18% | 19%                 | 30% |
| Safety Professionals         | 8%                   | 22% | 29% | 24%                 | 17% |
| Design Professionals         | 1%                   | 18% | 9%  | 8%                  | 64% |

| Specialty Contractors        | Least Difficult<br>1 | 2   | 3   | Most Difficult<br>4 | N/A |
|------------------------------|----------------------|-----|-----|---------------------|-----|
| Estimating Professionals     | 10%                  | 18% | 29% | 31%                 | 12% |
| Project Managers/Supervisors | 8%                   | 12% | 37% | 33%                 | 10% |
| Engineers                    | 8%                   | 12% | 16% | 16%                 | 50% |
| Business Development         | 8%                   | 24% | 20% | 12%                 | 36% |
| Safety Professionals         | 16%                  | 39% | 18% | 8%                  | 19% |
| Design Professionals         | 8%                   | 16% | 12% | 8%                  | 56% |

| Architects/Engineers         | Least Difficult<br>1 | 2   | 3   | Most Difficult<br>4 | N/A |
|------------------------------|----------------------|-----|-----|---------------------|-----|
| Estimating Professionals     | 4%                   | 13% | 15% | 4%                  | 64% |
| Project Managers/Supervisors | 2%                   | 19% | 40% | 23%                 | 16% |
| Engineers                    | 2%                   | 17% | 17% | 31%                 | 33% |
| Business Development         | 6%                   | 38% | 19% | 13%                 | 24% |
| Safety Professionals         | 6%                   | 12% | 6%  | 0%                  | 76% |
| Design Professionals         | 2%                   | 17% | 33% | 46%                 | 2%  |

**ESTIMATING PROFESSIONALS AND PROJECT MANAGERS** REMAIN THE MOST DIFFICULT POSITIONS TO FILL FOR BOTH GENERAL AND SPECIALTY CONTRACTORS.

ENGINEERS AND ARCHITECTS REPORT SIGNIFICANT DIFFICULTY IN FINDING AND FILLING QUALIFIED PROFESSIONALS FOR **MANAGER, ENGINEERING, AND DESIGN** POSITIONS.



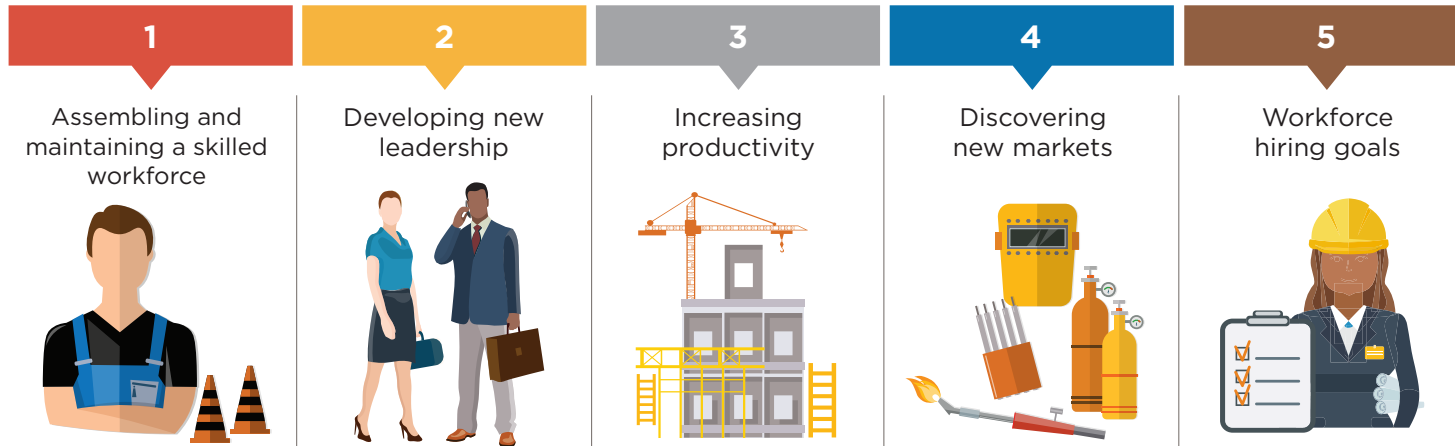


## Craft workforce hiring challenges

| General Contractors | Least Difficult<br>1 | 2   | 3   | Most Difficult<br>4 | N/A |
|---------------------|----------------------|-----|-----|---------------------|-----|
| Bricklayers         | 1%                   | 3%  | 5%  | 23%                 | 68% |
| Carpenters          | 2%                   | 19% | 29% | 18%                 | 32% |
| Cement Masons       | 2%                   | 10% | 20% | 27%                 | 41% |
| Drywall Installers  | 1%                   | 10% | 8%  | 7%                  | 74% |
| Electricians        | 0%                   | 7%  | 8%  | 5%                  | 80% |
| Equipment Operators | 3%                   | 15% | 33% | 27%                 | 22% |
| Ironworkers         | 3%                   | 5%  | 16% | 8%                  | 68% |
| Laborers            | 12%                  | 29% | 34% | 20%                 | 5%  |
| Millwrights         | 2%                   | 3%  | 7%  | 8%                  | 80% |
| Painters            | 1%                   | 4%  | 5%  | 4%                  | 86% |
| Pipefitters/Welders | 0%                   | 1%  | 7%  | 12%                 | 80% |
| Plumbers            | 1%                   | 2%  | 2%  | 9%                  | 86% |
| Roofers             | 0%                   | 3%  | 2%  | 4%                  | 91% |
| Sheet Metal Workers | 1%                   | 3%  | 3%  | 3%                  | 90% |
| Tile Setters        | 0%                   | 1%  | 4%  | 4%                  | 91% |
| Truck Drivers       | 4%                   | 16% | 18% | 19%                 | 43% |

| Specialty Contractors | Least Difficult<br>1 | 2   | 3   | Most Difficult<br>4 | N/A |
|-----------------------|----------------------|-----|-----|---------------------|-----|
| Bricklayers           | 2%                   | 2%  | 4%  | 8%                  | 84% |
| Carpenters            | 2%                   | 10% | 10% | 12%                 | 66% |
| Cement Masons         | 0%                   | 6%  | 6%  | 12%                 | 76% |
| Drywall Installers    | 0%                   | 4%  | 4%  | 2%                  | 90% |
| Electricians          | 0%                   | 8%  | 4%  | 6%                  | 82% |
| Equipment Operators   | 4%                   | 16% | 20% | 22%                 | 38% |
| Ironworkers           | 2%                   | 6%  | 8%  | 10%                 | 74% |
| Laborers              | 10%                  | 16% | 20% | 16%                 | 38% |
| Millwrights           | 0%                   | 2%  | 8%  | 0%                  | 90% |
| Painters              | 0%                   | 6%  | 6%  | 0%                  | 88% |
| Pipefitters/Welders   | 0%                   | 6%  | 6%  | 4%                  | 84% |
| Plumbers              | 0%                   | 6%  | 6%  | 0%                  | 88% |
| Roofers               | 0%                   | 6%  | 5%  | 2%                  | 87% |
| Sheet Metal Workers   | 0%                   | 4%  | 10% | 6%                  | 80% |
| Tile Setters          | 2%                   | 2%  | 4%  | 2%                  | 90% |
| Truck Drivers         | 4%                   | 18% | 12% | 16%                 | 50% |

## TOP 5 OVERALL BUSINESS CHALLENGES FOR 2018



### Business Challenges for 2018 and Beyond

|  | Overall    | General | Specialty | Affiliate | Architect/<br>Engineer |
|--|------------|---------|-----------|-----------|------------------------|
| Reducing costs                                 | 12%        | 13%     | 14%       | 25%       | 4%                     |
| Assembling and maintaining a skilled workforce | <b>56%</b> | 68%     | 63%       | 50%       | 29%                    |
| Increasing productivity                        | <b>22%</b> | 16%     | 20%       | 35%       | 27%                    |
| Discovering new markets                        | <b>22%</b> | 14%     | 14%       | 35%       | 39%                    |
| Managing cash flow                             | 7%         | 2%      | 8%        | 15%       | 12%                    |
| Managing client expectations                   | 18%        | 12%     | 2%        | 15%       | 46%                    |
| Implementing Integrated Project Delivery (IPD) | 1%         | 0%      | 0%        | 0%        | 6%                     |
| Workforce hiring goals                         | <b>22%</b> | 30%     | 35%       | 5%        | 4%                     |
| Developing new leadership                      | <b>31%</b> | 35%     | 27%       | 25%       | 31%                    |
| Navigating the regulatory environment          | 13%        | 10%     | 20%       | 15%       | 10%                    |



Below are unedited comments from respondents. To view all data, [click here](#).

**Please tell us what we haven't included in this survey that keeps you up at night:**

Lack of any consistent or rational direction on the national level. Will there be tax reform or an infrastructure bill? Will we pick a lose-lose fight with North Korea, or China, or fill-in-country here? Or start a trade war with any number of countries? Are there any adults shaping policy and helping to run the country?

Reverse discrimination and the pressure to hire someone to meet a workforce goal rather than the most qualified individual. This coupled with the fact that our trade has many hard specifications to meet, otherwise penalty and disincentives are applied, so having new people, training them not only cost money, but also the quality of the product. Safety: Training these new people (20% women and 30% minority) on a federally funded project, in live traffic, under tight time lines. Essentially putting these new people in the industry in the most non-safe atmosphere while they're trying to learn. You don't learn to swim by getting thrown off a boat in the middle of the ocean, however, that is what is being required of our workforce. If anyone doubts me, come on out to the job for a 1/2 day, stand next to live 60mph traffic with your back turned to them, then try and get some work done.

Increased cost of Technology that one needs to competitive --- Lack of skills in the varied tasks required by a tradesman these days.

Workforce reporting - not inclusive of professional staff - the EEO office themselves are discriminating by requiring reporting only for project specific direct labor staff. The implication that businesses with under 40 full time employees are held to the expectations of the larger businesses that were defined in the provisions is not consistent with the definitions of MN Statute 363.A.36 or 41 CFR 60.2.1.B (1) and the inclusion of those who were never intended to be included seems to be isolated to MN Office of civil rights MN DOT Contract Compliance. I don't see this practice in other business or industry. This practice of including those who were never intended to be included - along with disqualifying minorities and women on our staff who are not project specific only serves to dilute the percentages of diverse workforce as a percentage of the total toward meeting the goal for the overall industry. MN DOT appears to be one of the few states that I've seen that takes reporting to such an extreme that they unfairly reflect the actual diversity participation and then they have some specialists who resort to harassment and threats of contractors with each report that is submitted. A simple change to include professionals, or exempt the under 40 employee employer would solve many issues. I am also greatly concerned about ALL of my employees personal information that must be shared across so many in the industry - as I route my reports thru General contractors - who must keep that information secure - but also now have all the information that they need to recruit my staff away from me.

Union and regulatory restrictions of available workforce. 24% of our population is under 18. many of our minorities are in that group. We need to have options to bring into the construction industry the 16 - 18 year olds to fill the seasonal demands and mentor them into the next generation of union and non-union construction.

Project documents are so easy to change that project team members do not appreciate the cost of changes and the risk of something being built wrong. When plans were hard to print, changes were much more thought out and coordinated.

Government regulation and workforce issues.

Lack of skilled, diverse workforce

Minnesota is a very difficult state do business in. The time it takes to get approval and permitting is unacceptable. Many lost opportunities.

Ongoing continued regulations of our industry

Backwards state of MN government administration, agencies, and regulators. This environmental extremism should greatly disturb every Minnesotan!!!

The inability of our political institutions to make decisions and establish stable project funding is highly disruptive.

Sustainability awareness. Clients are not willing to look long term and spend extra up front to save in the future. Client education in the warehousing sector is difficult.

Our business is mainly leading and lagging the construction contractors. The architects are busy right now, but we provide testing and consulting on new buildings. The work in the flow already is busy, but we see a lag in the soil borings and other testing that would then fill into the design trade. The number of skilled professionals that we need are very thin, or are the wrong type of experience. We are seeing that the construction industry may be a bit slower in 2018 based on about 30 offices we have around the country.

Willingness of banks to loan monies for construction with reasonable terms. Willingness of banks to use fair comparables when agreeing to loans, willingness of banks to loan for small, high quality residential projects. Overuse of material markups by general contractors and subs, distorting hourly wage understandings and wage/ skill level relationships on job sites. Unwillingness of contractors to participate- even at hourly rates, in costing for projects in design development phases. Unwillingness of contractors to competitively bid residential projects.





Below are unedited comments from respondents. To view all data, [click here](#).

The ever-increasing costs of “doing business” such as insurance, regulations, unfunded mandates, etc.

Slower than necessary growth in industry due to above project delivery complications in construction trades.

Regulatory requirements of all types. Minneapolis is overly demanding on all fronts.

There is a very small number of professional people interested in working in out-state locations. We find that we have to “grow our own” architects and engineers, to some extent, meaning we hire inexperienced people right out of school, mentor and train them, hoping they stick around. What complicates the situation is that A/E projects are often given to people from outside the area, particularly the Twin Cities.

What are the salary change trends? Leadership development opportunities for senior staff? HRIS systems and management. Managing specific technology advancements. Training 0-5 year employees who are computer savvy but not building technology (practice) savvy.

The move from qualifications-based selections to low-cost provider (“bid”) model for professional services - the criteria for selecting your doctor, lawyer or tax advisor certainly aren’t based on “lowest cost”.

Things out of our control. How the global economy/tensions can affect the US economy which will affect construction and jobs.

How to reduce income taxes and plan for the next recession that will occur (in my estimate in 2019).

Finishers/ line setters/mason are the hardest to find. Qualified operators is another that are very hard to come by. The union in my mind does a poor job at recruiting qualified people to supply us.

Threats from the heavy hand of federal government for something totally out of your control. The EPA and The Department of Justice Civil Rights Division are especially scary agencies.

Current projects going on hold or not having enough work in backlog

The declining work ethic in the younger employees

The future is dim in this industry....owners are abusive and create unrealistic expectations and unrealistic deadlines. Our people want to live a normal life...not always be a perceived emergency situation.

Workforce workforce workforce - regulations make this an unpopular and nearly impossible to fill industry.

We’ve been on a very long run with a bull market. The construction industry is cyclical and heavily affected by the greater market strength. It’s not a matter of if, but rather when the market will have a significant correction causing a major downturn in the construction industry.

The inability of the 2 elected parties to get together, compromise and do their job in a timely and equitable manner.

Lack of government funding for our failing infrastructure system and poor management of the DBE program creating a unlevelled playing field for local, established businesses.

No long-term transportation investment plan.

## Factors that impact your business through 2018

The limited number of subcontractors that are knowledgeable and experienced in high-performance energy-efficient construction makes bidding and construction difficult. It also raises construction prices due to a “fear factor” and attempt to manage what is unknown to main stream subcontractors. Costs are way beyond the incremental quality increases and new construction methods. This is especially true in concrete work where subs are afraid of installing concrete over high density foams and HVAC subcontractors that are inexperienced at installing HVAC systems in very low load buildings utilizing energy recovery ventilators and heat pumps.

Obstructionist government and the resulting economic turmoil has already begun to negatively impact the economy and our business.

Very hard to figure out projects MNdot will fund...constantly changing....hard to plan.

DBE’s goals and management are out of control and are leading to out of state, under qualified DBE’s getting large amounts of work in Minnesota. This is costing Minnesota businesses and tax payers money and opportunity.

If there is no stable funding mechanism for infrastructure, we will struggle to be successful