



CONSTRUCTION
ASSOCIATION
OF MICHIGAN

2018 BIENNIAL BUSINESS SURVEY OUTLOOK





JOSEPH FONTANESI
FONTANESI & KANN CO., PRESIDENT
CAM Chairman of the Board

Dear Construction Associate,

We are pleased to present you with the results of our Biennial Business Survey, which examines activity in 2017-2018 and the outlook for the next 18 months. The survey was conducted through the joint efforts of the Construction Association of Michigan (CAM) and Plante Moran, and their continued commitment to provide accurate and timely business information to the construction industry.

Once again, this year's survey was issued online, which enabled a greater response due to the ease of completing and returning the questions. For those of you who took the time to complete the survey, thank you. Your participation is greatly appreciated. The responses will be available online via the CAM and Plante Moran websites. The survey data was compiled from the confidential responses by an independent survey company and developed as part of collaborative effort by CAM and Plante Moran.

The responses tell a great deal about our region, economy, and most specifically the health of Michigan's construction industry.

Results are indicative of how contractors cope with the present economy; the future construction climate is also forecasted by those who are directly involved in the Michigan construction industry on a daily basis.

As this year's survey reflected some positive indicators, we are confident that the construction industry in Michigan will remain strong. Our mantra, "One Industry, One Resource, One CAM," is what we strive for continually. CAM works hard legislatively, presents helpful and timely seminars on the issues that will affect our members, and is the number one source for Construction Project Information Services in the state of Michigan. We exist as a service to our members to help make them, and their businesses, successful.

Sincerely,

Joseph Fontanesi
CAM Chairman of the Board

ABOUT

THE CONSTRUCTION ASSOCIATION OF MICHIGAN

The Construction Association of Michigan (CAM) was founded in 1885 as the Builders Exchange of Detroit and Michigan. Celebrating its 133rd year in 2018, CAM is the oldest and largest construction association in North America. CAM is headquartered in Bloomfield Hills, Michigan, with a second division, known as CAM Tri-Cities, located in Saginaw. CAM is a not-for-profit organization comprised of 2,500 members.

CAM is supported by annual dues and service fees, and is governed by a 12-member Board of Directors elected annually by the membership. CAM members are comprised of general contractors, subcontractors, equipment and materials suppliers, architects, engineers, and service firms (attorneys, financial management companies, etc.).

The association is an essential information network for the Michigan construction industry. CAM's Construction Project Information Group reported on nearly 8,000 projects in 2017 via CAM's Virtual Planroom Network, OPUS.

The CAM Buyers Guide is the most widely used directory in the construction industry. Published yearly, the Buyers Guide lists each CAM member firm alphabetically and in classified categories. The CAM Buyers Guide is available in print and online via the CAM website at www.buildwithcam.com.

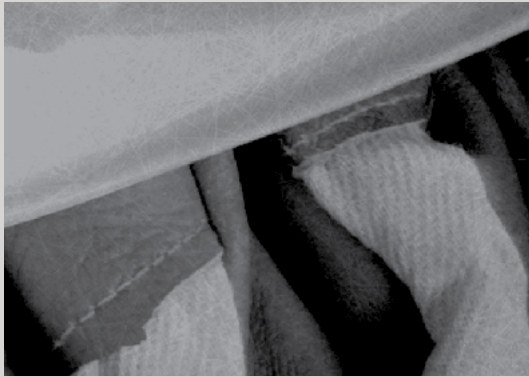
CAM Magazine, "The Voice of the Construction Industry," is recognized as the leading monthly industry magazine covering construction news, business trends, current projects, and construction technology in Michigan. CAM Magazine is offered in print form as a full-color glossy publication and is also available online at www.buildwithcam.com/cam-magazine. The magazine has readers worldwide and also maintains a strong social media presence via Facebook, LinkedIn, and Twitter.

CAMTEC, the training and education division of CAM, offers industry-specific classes and seminars on relevant topics within today's construction industry, along with the latest technology and trends. Courses are also available online and onsite at CAM member companies. With a full-time qualified safety professional/instructor on staff, the CAMSAFETY department offers free, onsite and hands-on safety training to all CAM members. Under a grant from MIOSHA, training encompasses Focus Four hazards: falls, caught-in, struck by, and electrocutions. CAMSAFETY also offers many classes, including OSHA 10- and 30-Hour training.

The CAM Labor Relations Program provides quality labor relations assistance and information, at no additional cost, to union contractors employing carpenters, cement masons, laborers, or operating engineers in Michigan. The CAM Government Affairs Committee (GAC) remains under capable leadership along with the assistance of CAM's lobbyist in Lansing, Kindsvatter, Dalling and Associates, Inc. The GAC has an established Political Action Committee (CAMPAC) and an Advocacy Committee to raise funds to impact the legislative process in Lansing. Over the past year, the CAM Government Affairs Committee, through its lobbyist firm, monitored several legislative bills potentially impacting the CAM membership and the Michigan construction industry.

Along with the services mentioned above, CAM also offers health insurance through CAM Administrative Services, workers' compensation insurance through CAM Comp, and superior banking service through the Construction Federal Credit Union.

For more information about any of these CAM services, or to inquire about CAM membership, please contact the CAM Marketing Department at 248.972.1000 or visit the CAM website at: www.buildwithcam.com.



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PLANTE MORAN

Audit, tax, and consulting services for construction companies

We understand your challenges and can offer flexible and creative solutions without sacrificing practicality. It takes a team of dedicated professionals to build, grow, and sustain a successful construction business; you can turn to us for help at every stage along the way.

Plante Moran is among the nation's largest certified public accounting and business advisory firms. For more than 90 years, our construction practice has been serving industry clients. Currently, we work with more than 500 clients, including general contractors, specialty trade contractors, highway and home builders, material suppliers, and others.

Contact us today to learn how we can support your growth:

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EXECUTIVE SUMMARY

The 2018 Biennial Business Survey Outlook by the Construction Association of Michigan and Plante Moran explores the industry's activities and outlook, challenges and opportunities.

Overall, key findings reveal a forward-looking industry that, alongside growth, is reckoning with some strong headwinds, but is up for the challenge.

TOP STRATEGIC AND BUSINESS ISSUES: STRATEGIC PLANNING AND WORKFORCE DEVELOPMENT

Almost half of respondents identified future planning as the most important **strategic issue** facing their business, with workforce development a close second.

In addition to identifying workforce development as a strategic issue, more than half of participants reported workforce development as their most challenging **business issue** in the next 12 to 18 months. Taken together, results suggest businesses are taking a more strategic approach overall, and specifically, with respect to cultivating skilled labor, including identifying innovative approaches to workforce development. These approaches include working closely with associations and educational organizations to develop plans to bolster the number of individuals choosing skilled trades as a profession. Those trades or companies that can advance the attraction, development, and retention of talent will have a distinct advantage in the marketplace.

KEEPING PACE WITH TECHNOLOGY

Technology is continually gaining importance, but are companies investing? Only 5 percent identified technology as an important strategic issue, despite nearly one-third of respondents who believe the industry isn't effectively leveraging technology for productivity. Why not? Cost and an "old-school" mindset, said several. Leveraging technology will allow organizations to share information more efficiently, identify issues in the field more quickly, and improve safety results. Technology budgets should be a key discussion item for each organization in order to demonstrate its importance for the future.

MORE WORK, CLOSER TO HOME

Participants reported more available work overall than in surveys past. In 2018, 25 percent of respondents had more than a 7-month backlog, which generally predicts strong financial results for the upcoming year. Nearly 60 percent are working only in Michigan, while 42 percent are doing work outside the state, less than reported in previous surveys. New construction is driving the majority of work and respondents continue to stress the fact that "work is there, we just need more people to do it."

RELATIONSHIPS AND COLLABORATION

The 2018 survey found a substantial increase in negotiated work, with fewer contractors bidding on each project, suggesting relationship-based work is on the rise.

More than half of participants reported utilizing collaborative design and construction methods, with workforce shortages likely driving the need for greater productivity. Companies using collaborative methods reported reduced waste and risk, improved efficiency and communications, as well as competitive advantage. As one respondent said, "...our willingness to work through design issues prior to being awarded the contract sets our company apart from our competitors."

NEXT-GEN PLANNING

Construction businesses are thinking more about the future of their businesses, with 57 percent reporting succession plans in place, up from 47 percent in 2015. Fifty-eight percent believe their management team is prepared to take the reins in the owner's absence, which bodes well for the future. It also provides opportunities for continued investment in leadership development, encouraging the "entrepreneur mindset" and providing regular performance feedback to employees.

Our goal for the biennial survey is to help members improve profitability, grow, and make transformational changes to support their success.

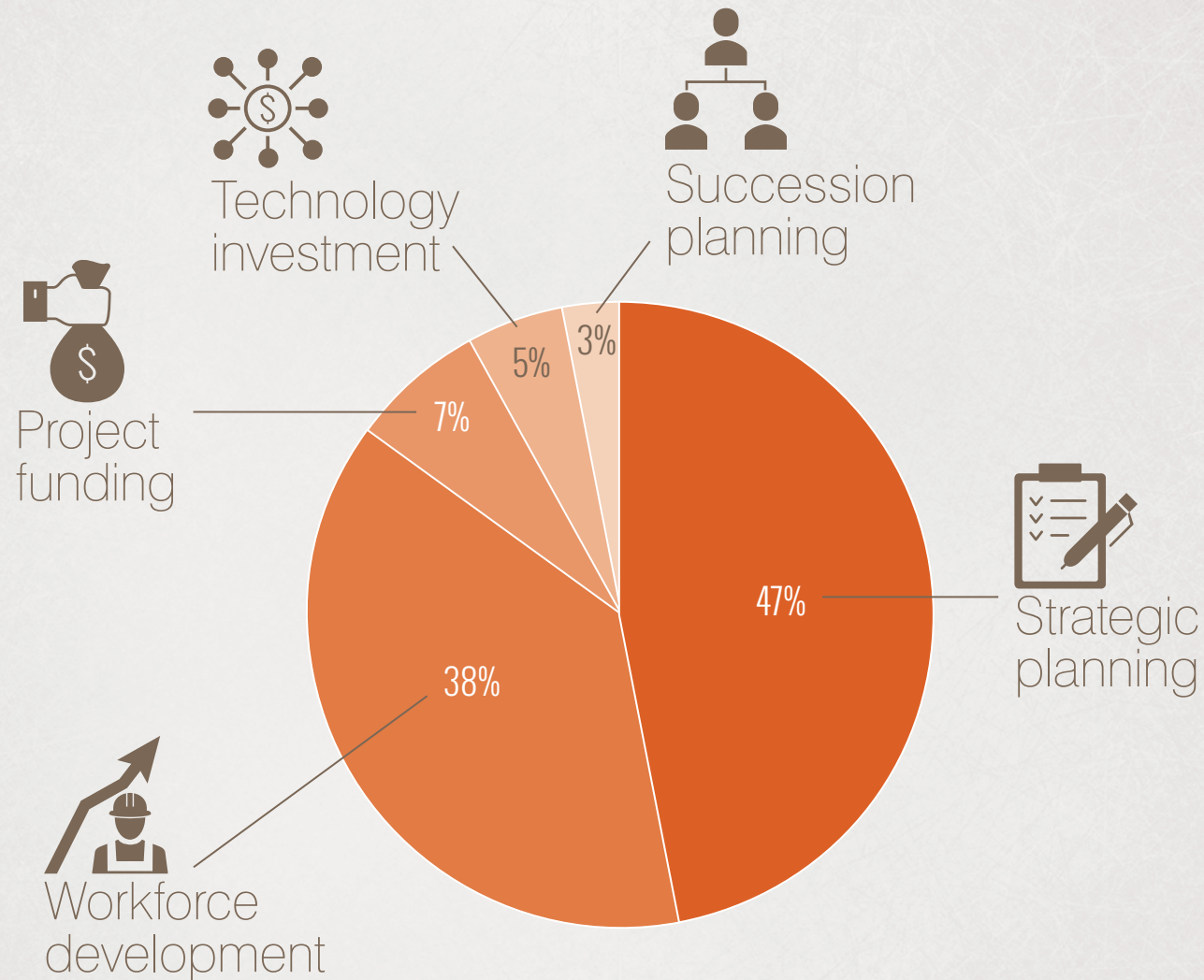


BUSINESS OUTLOOK

“The opportunities in the industry are as plentiful as ever, but the climate is more difficult to navigate due to many factors. Increased regulation, information needed and transferred, cash flow, and lack of properly trained personnel all make the process more difficult...”

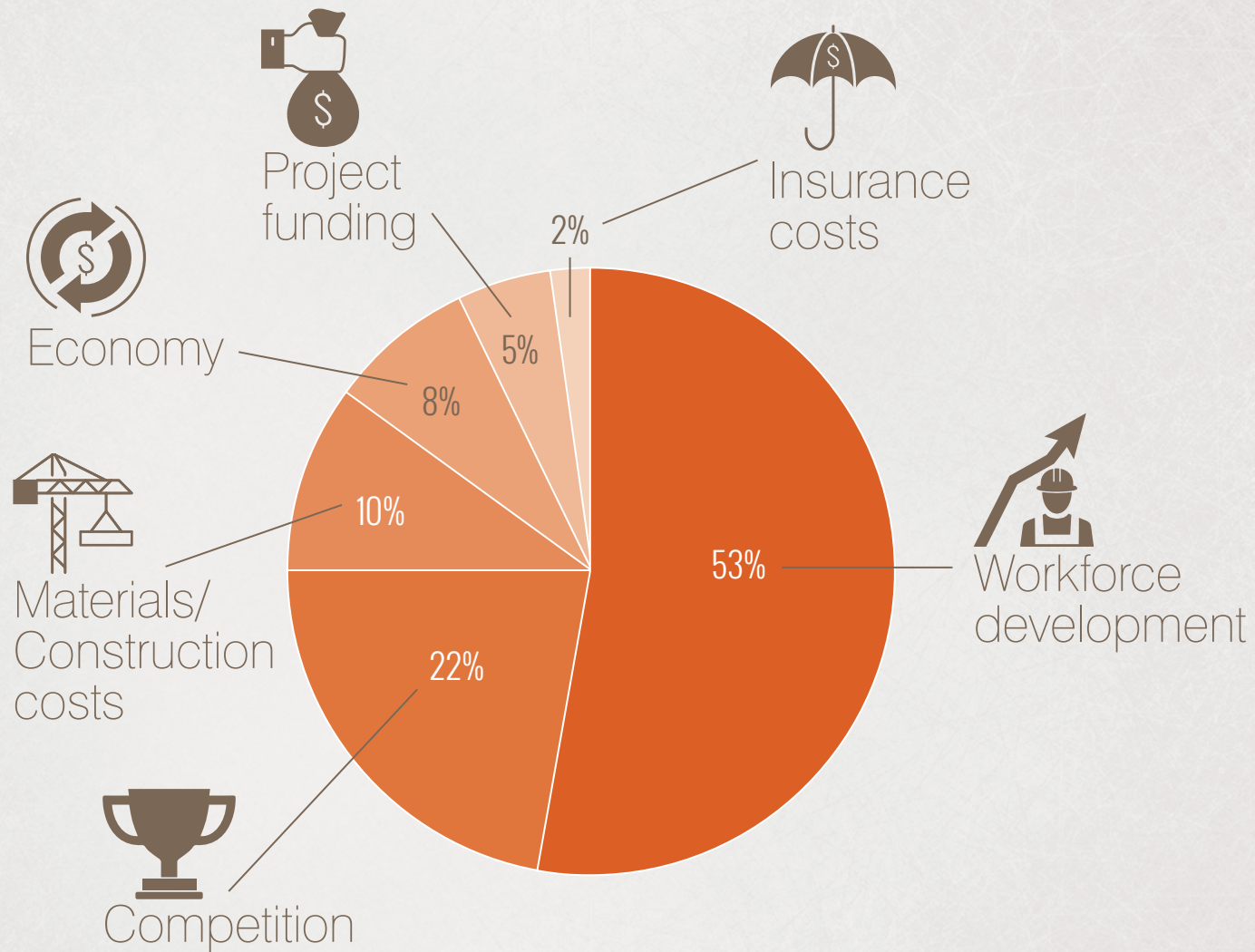
Which strategic issue is most important for your business?

2018

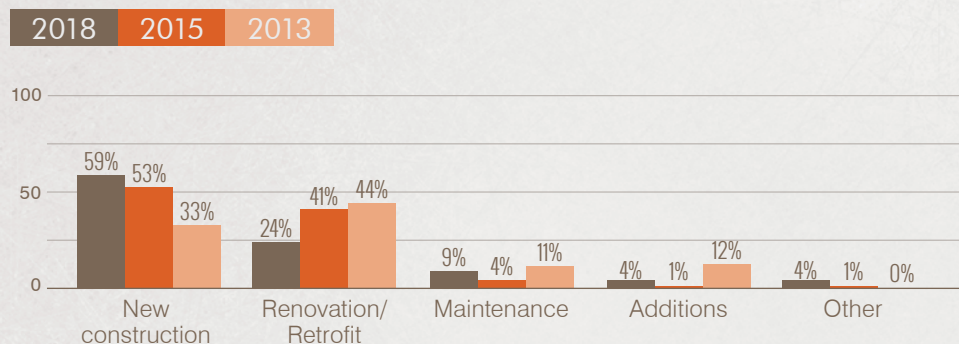


What is the most challenging issue facing your business in the next 12–18 months?

2018



Which area is currently providing your company with the most work?



Where do you anticipate the most opportunities for work in the next 12–18 months?

58% New construction

25% Renovation

9% Maintenance

4% Retrofit

2% Additions

2% Other

What is the average cost of work you're currently performing?

31%	Less than \$100,000
43%	\$100,000–\$500,000
7%	\$500,000–\$1 Million
2%	\$1 Million–\$2 Million
5%	\$2 Million–\$5 Million
5%	\$5 Million–\$10 Million
7%	Over \$10 Million

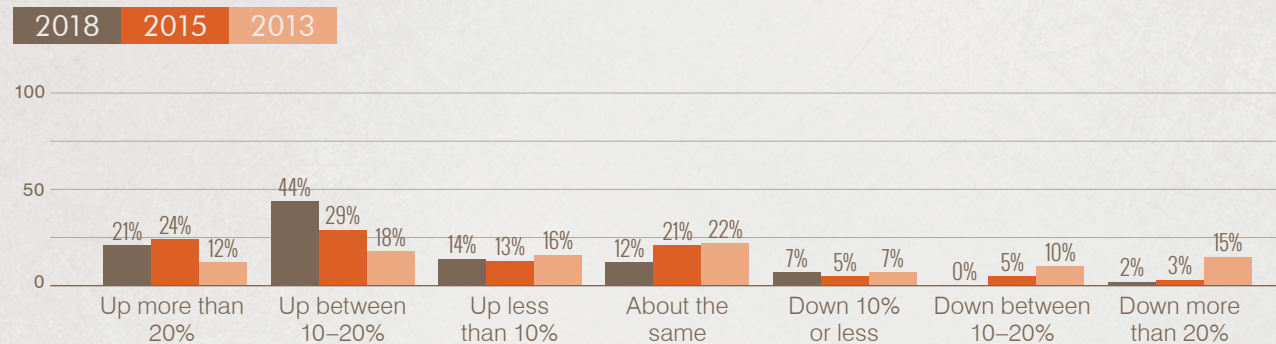
In the next 12–18 months, what do you anticipate the average project cost of work will be for your company?

25%	Less than \$100,000
44%	\$100,000–\$500,000
15%	\$500,000–\$1 Million
0%	\$1 Million–\$2 Million
5%	\$2 Million–\$5 Million
3%	\$5 Million–\$10 Million
8%	Over \$10 Million

Where do you anticipate the most opportunities for work in the next 12–18 months?

19%	Transport/industrial
19%	Residential
18%	Education/Cultural/Scientific buildings
15%	Health/Welfare buildings/Hospitals
10%	Interiors/Tenant improvements
10%	Office buildings
5%	Infrastructure
2%	Renewable energy
2%	Public works buildings

How has the volume of work for which you have contracted changed over the past 12 months?

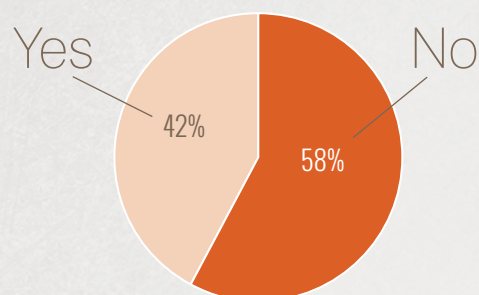


How do you anticipate the volume of work changing over the next 12-18 months?



“The construction industry remains optimistic about near-term opportunity.”

Are you currently doing work outside the state of Michigan?



Do you anticipate the percentage of total volume of work performed outside Michigan increasing or decreasing in the next 12–18 months?

72% Increasing
28% Decreasing

What percentage of your total volume of work is performed outside the state of Michigan?

28% Less than 10%
36% 10–20%
20% 20–50%
16% 50% or more

How much do you foresee healthcare costs increasing in the next 12–18 months?

17% 0–5%
44% 6–10%
15% 11–15%
3% 16–20%
9% 20% or more
12% I do not know.

Are you aware of the tax incentives for Brownfield redevelopments?

61% Yes

39% No

Contractors that are involved and knowledgeable about projects using tax incentives might find more work available to them.

Is your company participating in the rehabilitation of Brownfield sites or in community revitalization programs?

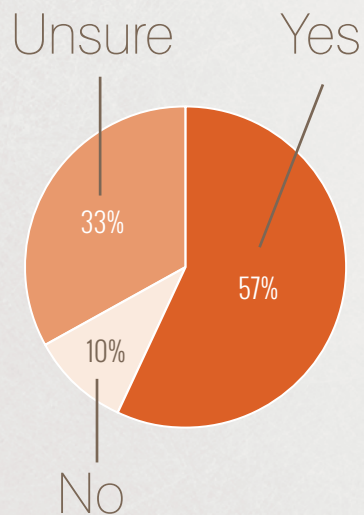
36% Yes

50% No

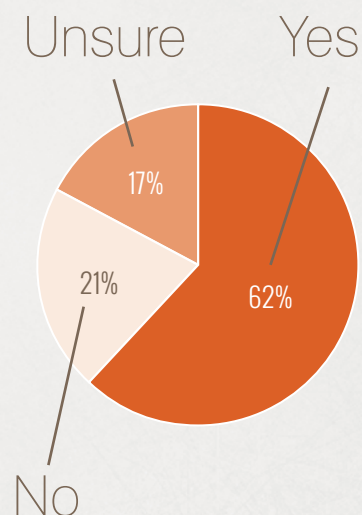
14% Not sure

Would you still choose to make your living in the construction industry if you were beginning your career today?

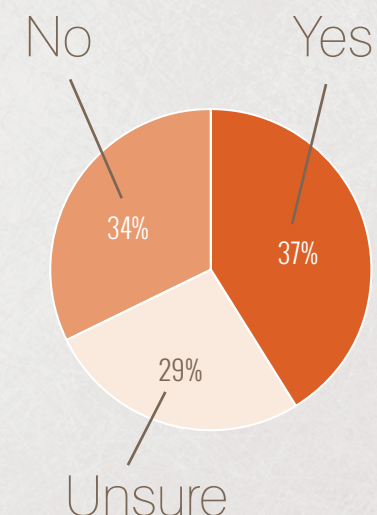
2018



2015



2013



Please tell us why or why you would not still choose to make your living in the construction industry if you were beginning your career today?

There is a serious labor shortage, and the customers are not real understanding about the great lengths you go to to ensure their satisfaction.

I was not prepared for the business part of what we do. I am an Instructor, and the business part of the company, Accounting, Bidding, Payroll were more than what I expected. Although I have learned and been successful with the skills I have developed, I was poorly prepared.

It has been a good career, but I could do without the ups and downs.

At times, it seems other industries have an easier path to promotion and higher wages than our industry at this time. Our industry seems to have a slower wage increase due to the past few years, from the information that I have studied.

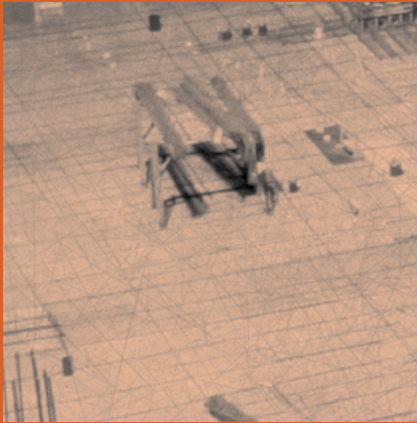
It is not an easy business to be in, and it is also very time-consuming, stressful, and has taken a lot of personal time away from my family.

Pay versus stress. No way. Financial or medical are the two areas I would recommend.

My degree is a B.A. with emphasis in marketing. Even though I work for a manufacturer, my role is an administrator and manager, which is fundamentally the same no matter what field you are working in. I have found the construction industry to be cyclical but with no pattern or predictability of the cycles, which is frustrating. The economy, material costs, labor, funding, weather, and politics all seem to play a role within the equation.

You don't know what you don't know.

The opportunities in the industry are as plentiful as ever, but the climate is more difficult to navigate due to many factors. Increased regulation, information needed and transferred, cash flow, and lack of properly trained personnel all make the process more difficult than earlier in my career. If upcoming generations are not convinced of career opportunities, there will be a perpetual shortage of well-trained and experienced workers. At this time, there doesn't seem to be an adequate experienced workforce to train those entering the industry. School only supplies initial training, beyond that, years of jobsite training is needed but is not available.

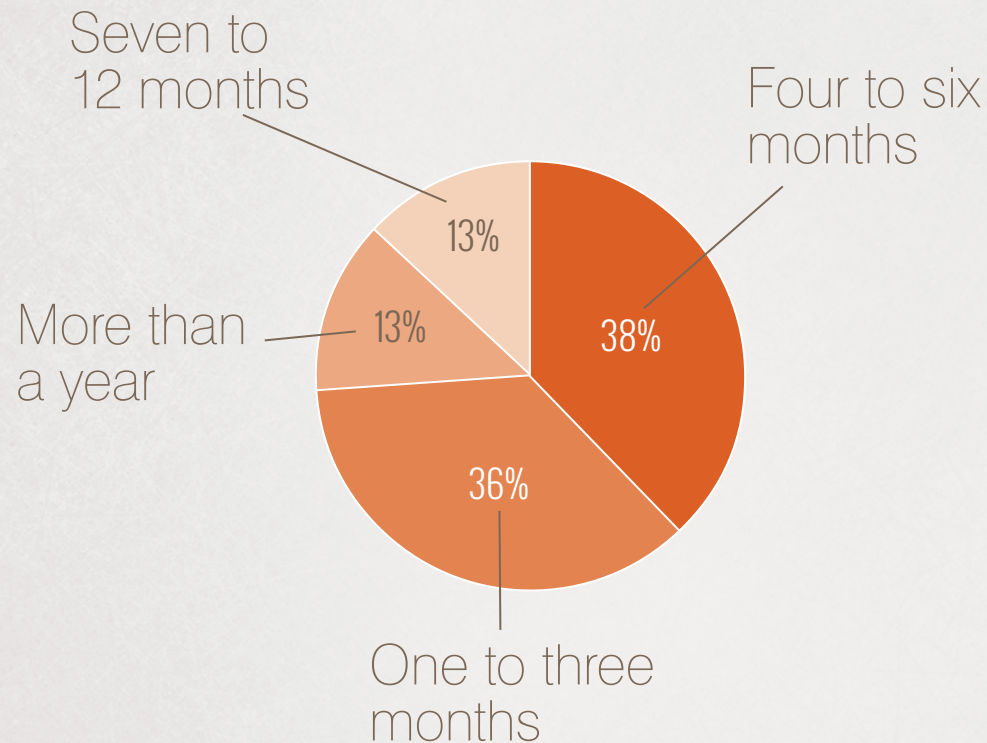


SECURING WORK

“Our willingness to work through design issues prior to being awarded the contract sets our company apart from our competitors and shows them how our valuable knowledge and expertise can lead to the ease of economy of construction.”

How much new work do you currently have backlogged?

2018

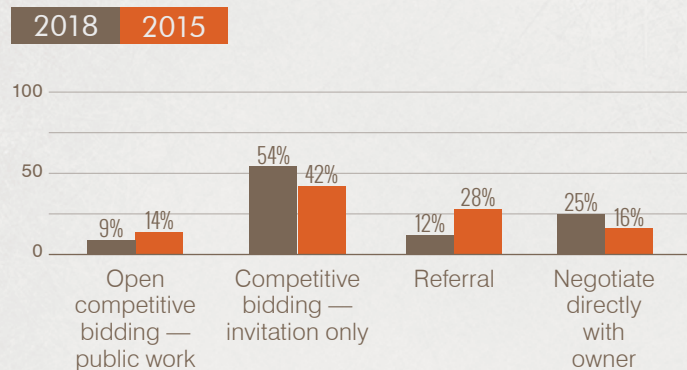


Backlogs of work are increasing: in 2018, 26% of respondents had more than a seven-month backlog. In 2015, it was 14%.

What primary method do you anticipate using for securing work in the next 12–18 months?

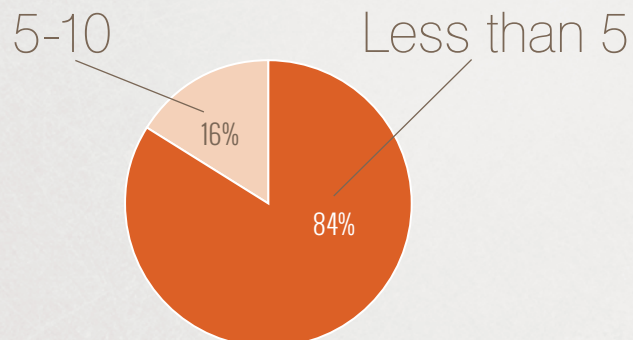
54%

Competitive bidding — invitation only

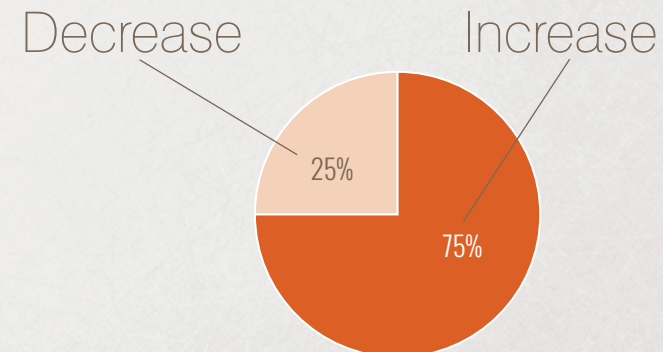


Negotiated work and competitive bidding — Invitation only is up substantially, which means that relationship-based work is increasing.

If you are bidding on competitive work, what is the average number of bidders who have been bidding against you on each project?



Do you anticipate the number of bidders bidding against you to increase or decrease in the next 12–18 months?



How have your profit margins or mark-ups changed in your bids submitted over the last 12 months?

11% Increased 5% or more

31% Increased 2–4%

9% Increased 1% or less

38% No change

4% Decreased 1% or less

5% Decreased 2–4%

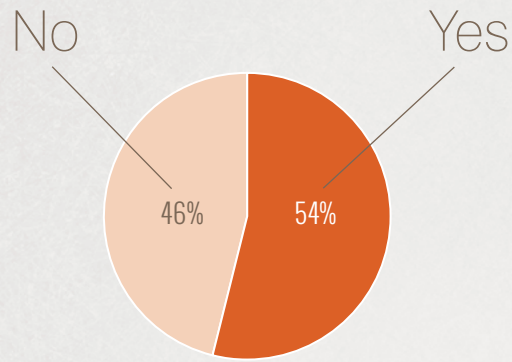
2% Decreased by 5% or more

Do you anticipate additional profit margin or mark-up pressure on your bids in the next 12–18 months?

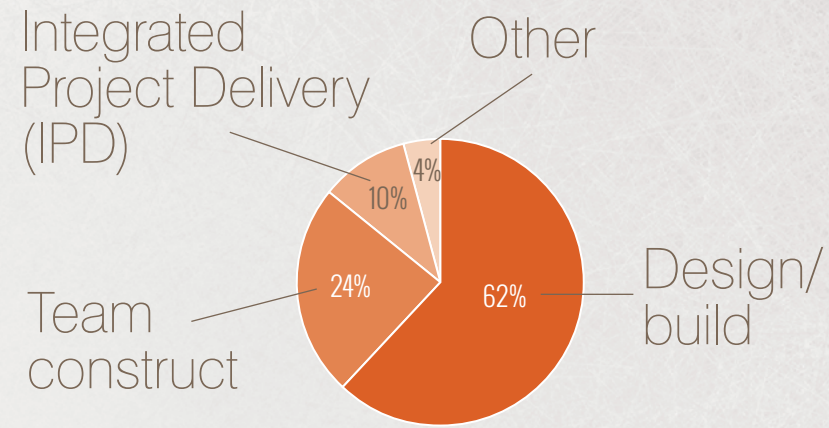
65% Yes

35% No

Has your firm ever utilized collaborative design and construction methods prior to building?



Which collaborative design method did you utilize?



Please explain how your company benefited from using collaborative design and construction methods.

Easier to contain costs. IPD gives us a way to control the document output and get paid for the work.

By joining the building team early enough to have some input on design decisions to help maintain project budget.

Improves chances of landing the project.

Good communication with the architect, the general contractor, and the contractor; building relationships

Using collaborative design is an advantage in our product with precast concrete. It allows us to be involved from the start of a project working with an architect to help in design and providing the best product for the best results.

It brought the participants together to find more value for all equaling more profit along with a satisfied customer.

Waste is reduced; risk is reduced; information is improved.

It created project opportunities that would not be available without design.

The end user gets more of what they need/want in a more organized fashion.

Sometimes our willingness to work through design issues prior to being awarded the contract sets our company apart from our competitors and shows them how our valuable knowledge and expertise can lead to ease and economy of construction.



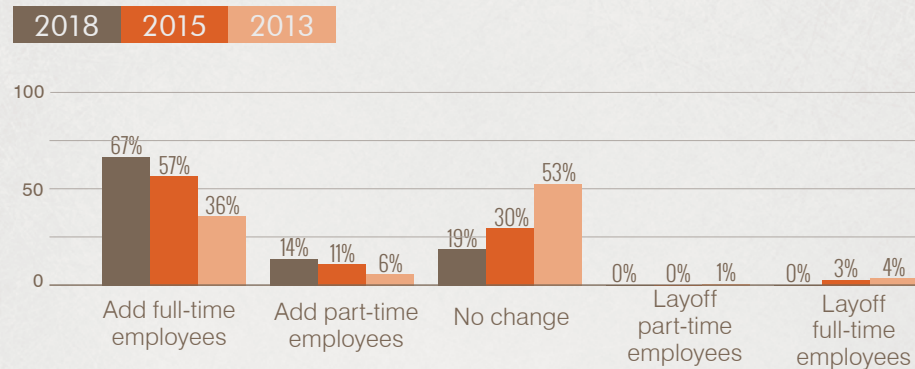
WORKFORCE PLANS

“We need to do a better job messaging the great careers that are available for electricians, plumbers, carpenters.”

“Offer a different solution for recent graduates and increase wages so they see a future in the trades.”

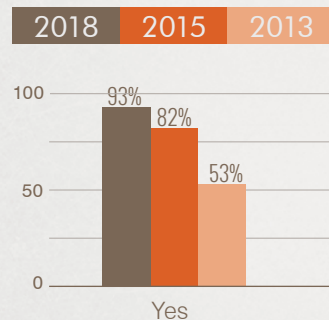
What plans do you have for your work force over the next 12–18 months?

67%
Add full-time employees



Is your company experiencing difficulty finding skilled workers?

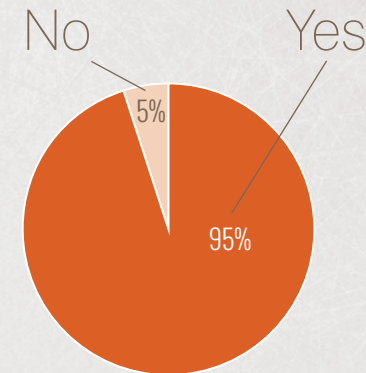
93%
Yes



Over the next 12–18 months, do you anticipate labor availability to:

- 2% Increase significantly
- 9% Increase slightly
- 39% Stay the same
- 40% Decrease slightly
- 10% Decrease significantly

Do you anticipate a continued skilled-labor shortage?



How should the industry address the continued skilled-labor shortage?

Professional organizations need to do some outreach. Especially to underrepresented people. The NAWIC, National Association of Women in Construction, has several training programs for young women. We need to do a better job messaging the great high-paying careers that are available for electricians, plumbers, and carpenters. I am involved in NAWIC and HBA-Professional Women in Building...we are still underrepresented and need to work on this. Communicating at the high school, not college level is key.

Advertise and get young people engaged in the industry, trade schools, and vocational training.

Offer training in specific fields.

Focus on high schools — we need to convince HS counselors and others in education that you do not need a college degree to be successful. You do need a strong background in the basic classes.

The industry needs some additional outreach programs into the lower schools to identify construction as a viable career path. Need to expose the kids much younger so it is at least on their radar.

Look for programs that would advance current people in the workforce. Stop stealing people from other contractors to meet their needs. This only keeps advancing the problem instead of addressing and correcting it.

Take the time to properly train new people.

Pressure the government to mandate trade-industry training for government assistance recipients and cut off benefits if the recipient fails to enter the workforce as a productive contributor. With the workforce shortage, there is no reason able-bodied people should not be contributing to the system.

Possibly have a registry with available workforce available to the construction members in Michigan.

Recruiting kids from high school; promoting and supporting labor unions; pursuing veterans.

How should the industry address the continued skilled-labor shortage? (cont.)

Offer training and programs to gain interest in skilled trades. Offering a different solution to for recent graduates and increasing wages so that they see a future in the trades.

Combine forces with all companies and industry associations working together to bring workers back to Detroit.

More apprenticeships need to be made available to get people back into trades. Less focus should be paid to attending a four-year institution.

Increase overall compensation for hands-on workers.

Get our arms around the pension liability issues, healthcare costs, and total union packages. Try to get more money in the hands of the workers, not funding pension plans.

The industry as a whole needs to “Collaborate” with our local schools and universities. Being in a trade has been so stigmatized over the years that very few people are getting involved in that sector.

Our schools have done away with some of the programs that might be a facilitator in getting them on a career path that they might embrace, enjoy, and be successful at. Parents and counselors play a role here.

Education. Going to high schools in fringe suburbs to target non-college bound students.

Incentives to bring labor forces back to Michigan.

Encourage young people to enter skilled trades by providing good wages and benefits. Eliminating prevailing wages will only make the situation worse.

Push for the reinstatement of shop classes in high school.

There are a lot of people who are great at construction and building who do not have a HSD/GED. I don't believe that barrier should stop those people from becoming employed. Esp. for a laborer position. A foreman/journeyman, I totally understand. But my opinion is there's too much red tape and ridiculous qualifications for low-rank jobs. Employ these people, get them off their tails, esp. if they want to work.

Add vocational classes to high school curriculum and educate today's youth on the bright careers available in the skilled trades. Create more exposure for trade schools as opposed to traditional colleges as options after high school.

How is your company dealing with the skilled-labor shortage?

Implementing a carpenter apprentice program. Lead carpenters and managers training on the job with rewards associated with gaining skills. This is tough though because we are busy, and taking the time to train the newer employees slows things down. But, we have to do this.

Speaking at high schools and area trade schools.

We are hiring young people and training them in the trade where they show strength.

We have retained our most valuable skilled workers ages 50–65 years old.

Recruitment from vendors.

We sponsor the local YouthBuild program.

As a CM, we don't hire trades directly, but do find it challenging to confirm our subcontractors have adequate manpower to get the job done. Thorough discussion on project schedule, crew sizes, and completion expectations are a very big part of our pre-award activities when selecting a subcontractor for any given project.

We test and train employees already working in the construction industry. Have programs that would prepare people with skills to enter the workforce.

We are installing new innovative CNC production machinery to assist us with an increase in production capacity. We would love to invite the folks at CAM out to see our new technology. Campbell & Shaw Steel, Inc. will be the first company in Michigan with this particular make and model machinery.

Avoiding Saturday and Sunday work. Young people want weekends off.

We try to give some of the employees that have been with us longer a wage that is a little higher than the union rate, but this makes getting work more difficult, due to labor portion of bids. Being a union contractor has become more difficult in getting the bigger jobs, as the nonunion contractors are now competing more and more to get these jobs, and are winning.

Participating in high school outreach programs; promoting and supporting labor unions.

We are recruiting through existing employees to bring other tradespeople along or green employees.

Training and promoting individuals from the existing staff to promote a solid future and job security.

We attempt to utilize experienced tradesmen that know exactly how we need to operate on the jobsite so that we can be as efficient as possible so that we can accomplish the job on time and within labor budget.

We've been able to keep our existing workforce long-term and haven't really needed to seek additional workers.

We are having discussions with educators and here internally at our office. Some of us that have made this a life-long career are mentoring and promoting the "trades" as well as becoming an architect or engineer.

Attempting to get workforces from competition.

Increased in-house training. Increase wages by 6% this year. Utilize nonunion apprentice school training.

Volunteering in community schools and business.

Finding our own apprentices and putting them into the unions.

By our helping our signatory union deal with the problem.

Hiring and giving these type of people (non-ged/hsd holders) a chance.



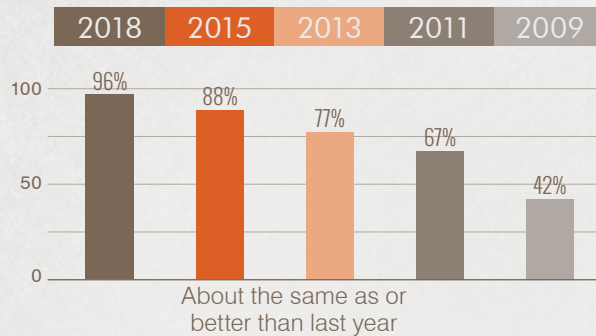
FINANCIAL HEALTH

Ninety-one percent of respondents anticipate an increase in material prices this year, compared to 78% in 2015.

How does your present cash flow situation compare to last year?

96%

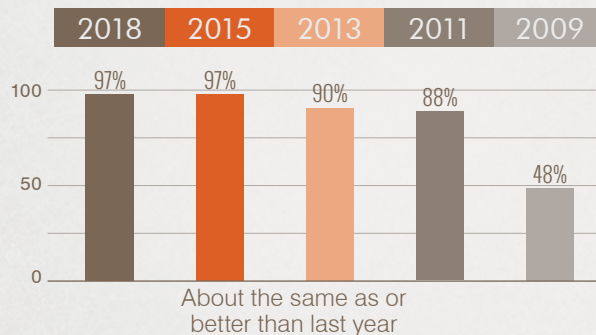
About the same as or better than last year



In the next 12–18 months, how do you anticipate your cash flow position?

97%

About the same as or better than last year



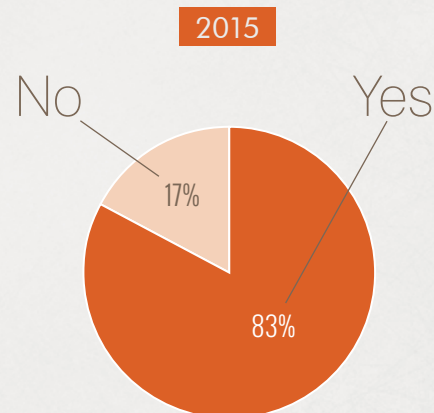
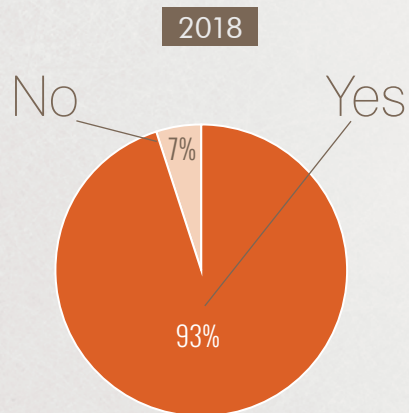
What is the average length of time it takes your company to receive final payment for work performed or materials provided?

39% 30–60 days
41% 60–90 days
20% More than 90 days

Do you anticipate the average time it takes to be paid improving or getting worse in the next 12–18 months?

61% Improving
39% Getting worse

Is your company's financial strength sufficient to manage your cash flow needs?



Sixty-one percent of respondents take more than 60 days to get paid.

Delays in contractor payment remain an issue in our industry.

Do you have adequate access to a bank line of credit?

87% Yes

13% No

Do you anticipate utilizing your bank line of credit more or less in the future?

44% More

56% Less

Do you anticipate your ability to access a bank line of credit improving in the next 12–18 months?

2018 71% Yes

29% No

2015 55% Yes

45% No

Have you filed a Claim of Lien in the past 12 months?

76% No claims

22% 1–5

2% More than 5

What percentage of the work you perform is bonded?

50% No bonded work

31% 10%

15% 20–40%

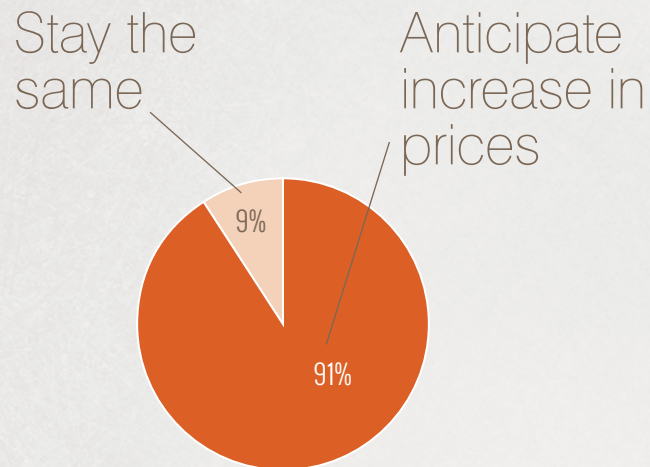
4% 41% or more

Is your company having more difficulty securing sufficient bonding capacity?

10% Yes

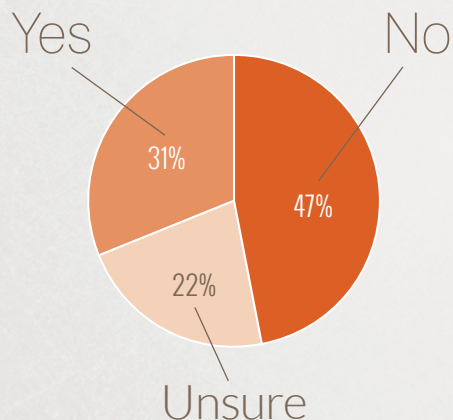
90% No

Do you anticipate material prices changing in the next 12–18 months?



Seventy-eight percent of respondents anticipated an increase in prices in 2015, compared to 91% this year.

Are you anticipating, or do you anticipate, material shortages over the next 12–18 months?



Please note type of material:

Lumber

Concrete

Steel

Wood products

Fly ash

Plywood

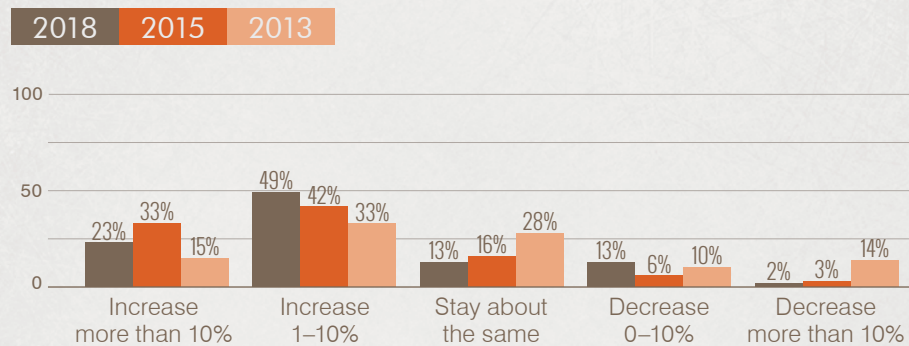
All building materials

This survey was administered and responses collected before recent tariff discussions advanced.

Compared to prior year sales, your company's annual sales for the coming year will:

72%

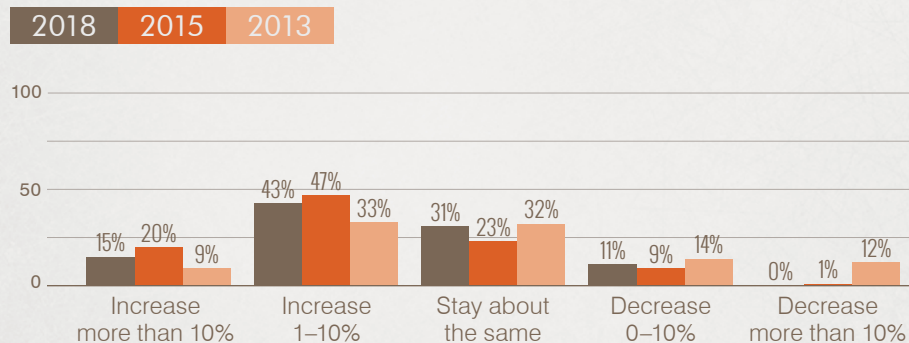
Project an increase



Compared to the prior year, your company's profitability for the coming year will:

58%

Project an increase

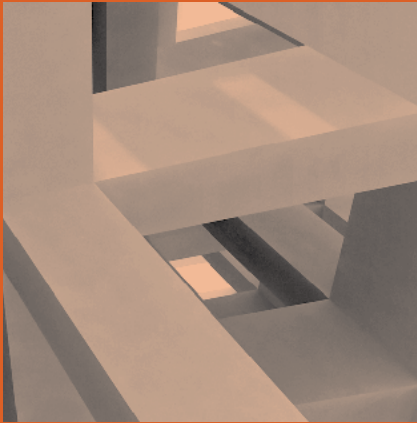


What is the biggest financial challenge facing your company in the next 12–18 months?

- 30% Cash flow/Prompt pay/Retention
- 28% Profitability/Profit margins
- 27% Sustainable growth
- 11% Lender support/project funding
- 4% Bonding

Do you support performance payment legislation?

- 81% Yes
- 19% No



BUSINESS CONTINUITY

Seventy-one percent of businesses are family-owned, and 46% have a succession plan in place that includes selling or transferring to family.

What structure best describes your business?

71%
Family-owned

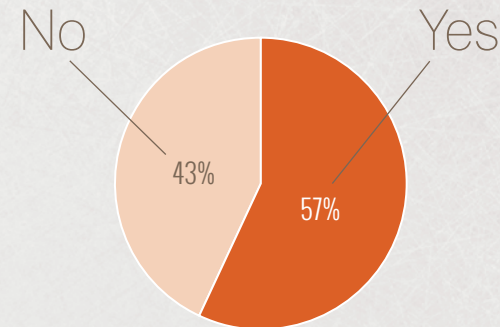
5%	Parent company
5%	Investor/Private equity-owned
15%	Employee/Management-owned
2%	ESOP-owned
2%	Publicly owned

If family-owned, for how many generations has the business been in your family?

45%
One generation

29%	Two generations
26%	Three generations or more

Do you currently have a business succession plan in place or in process?



The construction industry seems to be more aware that succession planning is a major issue – 57% have a succession plan now compared to 47% in 2015.

Which of the following is the key element of your succession planning strategy?

46%

Selling/
transferring
to family

27%	Selling to key management personnel
8%	Establishing an ESOP
8%	Merging with another company
8%	Winding down/Liquidating
3%	Other
0%	Selling to a strategic buyer

In the event of your death, your stock would:

69%

Pass to
my heirs
through my
estate

15%	Be redeemed by the company
10%	Be purchased directly by my partner(s)
6%	Other stock plans

Seventy-three percent of respondents' strategy includes a transfer or sale to internal team or family.

If you were to leave your company tomorrow:

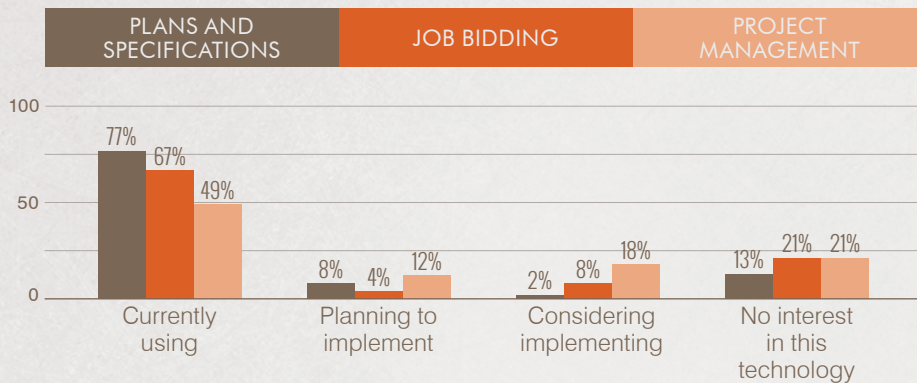




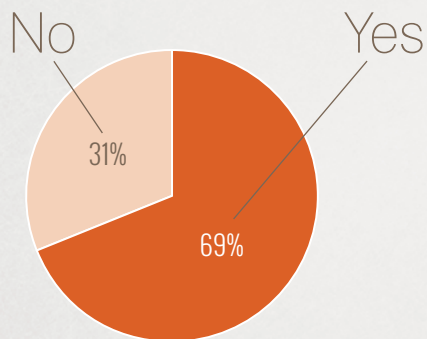
TECHNOLOGY/
SUSTAINABILITY

“Smart phones, tablets, cloud-based project management software, and bid programs are all commonly utilized, as are web-based training seminars.”

Which of the following web-based technologies are utilized by your company?

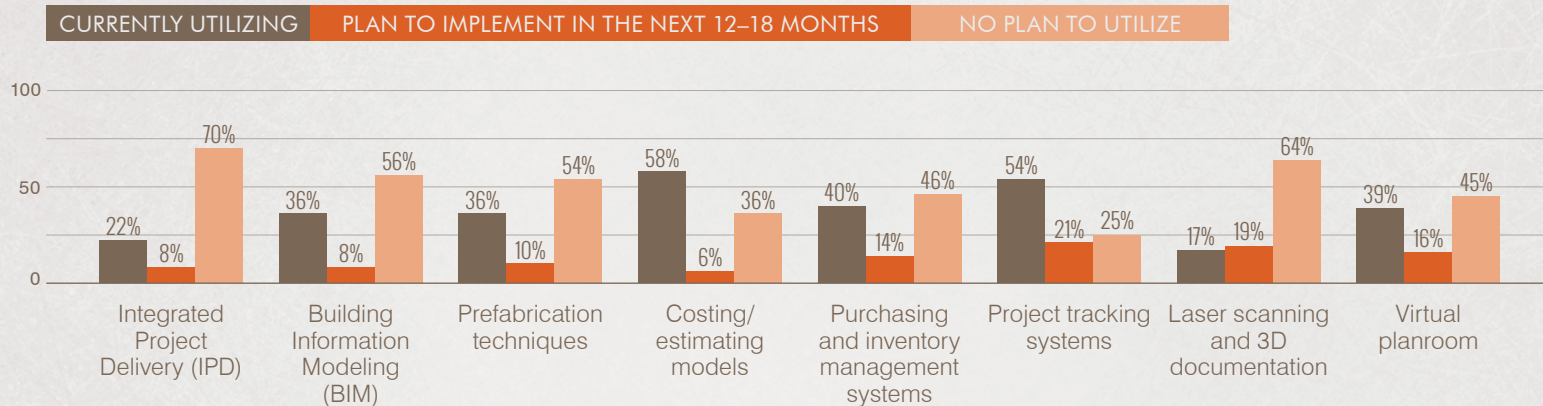


Does your company regularly engage in green or sustainable building practices?

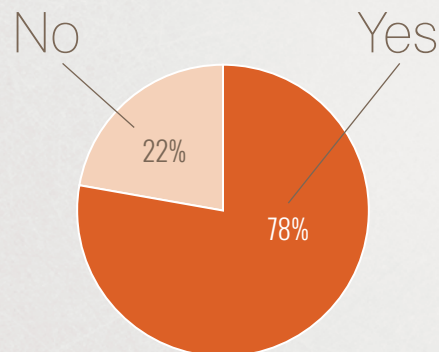


The percentage of companies who regularly engage in green or sustainable building practices increased from 2015.

Does your company currently utilize, plan to implement in the next 12–18 months, or have no plans to utilize the following technologies?



Do you feel that the construction industry adequately embraces and implements technology?



What are the barriers to the construction industry, or to you individually, embracing new technology?

Cost of training and implementation.

Contractors are locked into tight bids that make them want to look for any way to reduce cost, ignoring any outside suggestions.

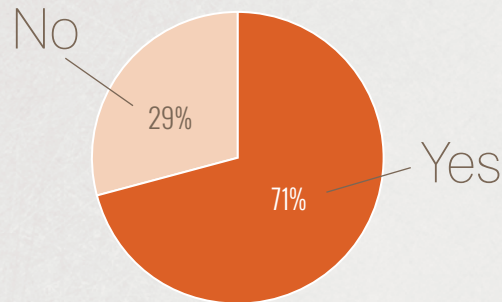
Older generation that is adverse to new technology.

The industry tends to be too slow to implement new technology.

I am of the opinion that as we pass through the changing of the guard; this embracing of new technology will increase dramatically. We are already experiencing it in our industry and the future looks very bright. I am of the opinion that the construction industry as a whole and generally speaking, lags a little bit.

Old school mentality.

Do you feel that the construction industry has effectively adopted technology to improve productivity?



Why, or why not, do you feel that the construction industry has effectively adopted technology?

WHY

Smart phones, tablets, cloud-based project mgmt. software and bid programs are all commonly utilized, as are web-based training seminars.

The industry seems to adopt technology as it is introduced.

Computerization is utilized for more and more applications resulting in less error in the field and more efficiencies.

I am of the opinion that as we pass through the changing of the guard, this embracing of new technology will increase dramatically. We are already experiencing it in our industry, and the future looks very bright. I am of the opinion that the construction industry as a whole and generally speaking, lags a little bit.

Seeing new things every day.

WHY NOT

Too many regulations by GCs, CMs, owners — always changing their requirements — racing to complete their required tasks, they can't keep up with everything they require, which drags their payments out.

The technology is increasing, and it is difficult to find the time to be educated about it.

Larger companies are quick to experiment with new technologies. Smaller firms cannot afford to experiment, which causes a large discrepancy between the larger and smaller firms.

Simply put, cost is the impediment to a greater impact on our industry. It appears only the larger firms are utilizing the technology that is available. Many of the smaller firms, subcontractors in particular, are way behind and continue doing it "the old fashioned way."

Some design drawings are very poor, could be due to current economic climate.

Contractors are locked into tight bids that make them want to look for any way to reduce cost, ignoring any outside suggestions.

They are trying to put things into play before all the bugs are worked out.

Older generation that is adverse to new technology and adapting to changing world.

They seem to always look for better ways to help people fabricate and install their work. Whether it be in computer software, tools, or equipment to get the job done faster.

Technology needs to be embraced through out the construction industry. It will promote the industry and attract a younger generation to the field. We need to replace the retiring staffs with youth and keep the industry growing for the future.

They, like any other business, need to look at how to be efficient and cost-effective to their customers.

They tend to be too trendy or try to adapt other industries standards/programs.

While some technology has been adopted, it seems such slower than other industries in general.



DEMOGRAPHICS AND WRITTEN COMMENTS

Demographics

What is your role in the industry?



95%

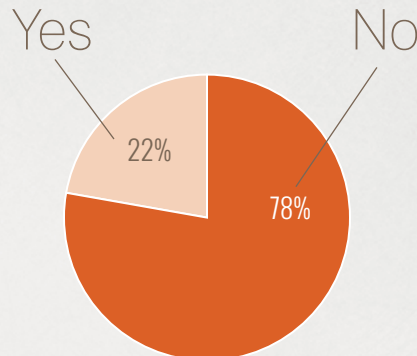
Member of the construction industry, including general contractors, subcontractors, suppliers, architects, and engineers



5%

Construction industry customers, including public and private owners and developers

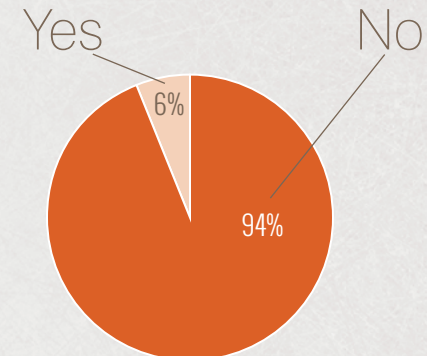
Is a woman a majority-owner (51% or more) of this business?



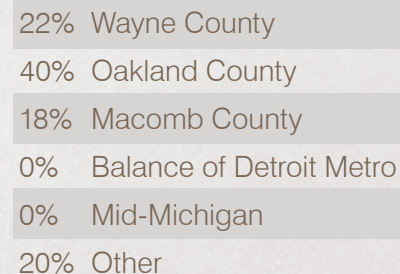
How long has your company been in business?



Is this a minority-owned (excluding female-owned) business?



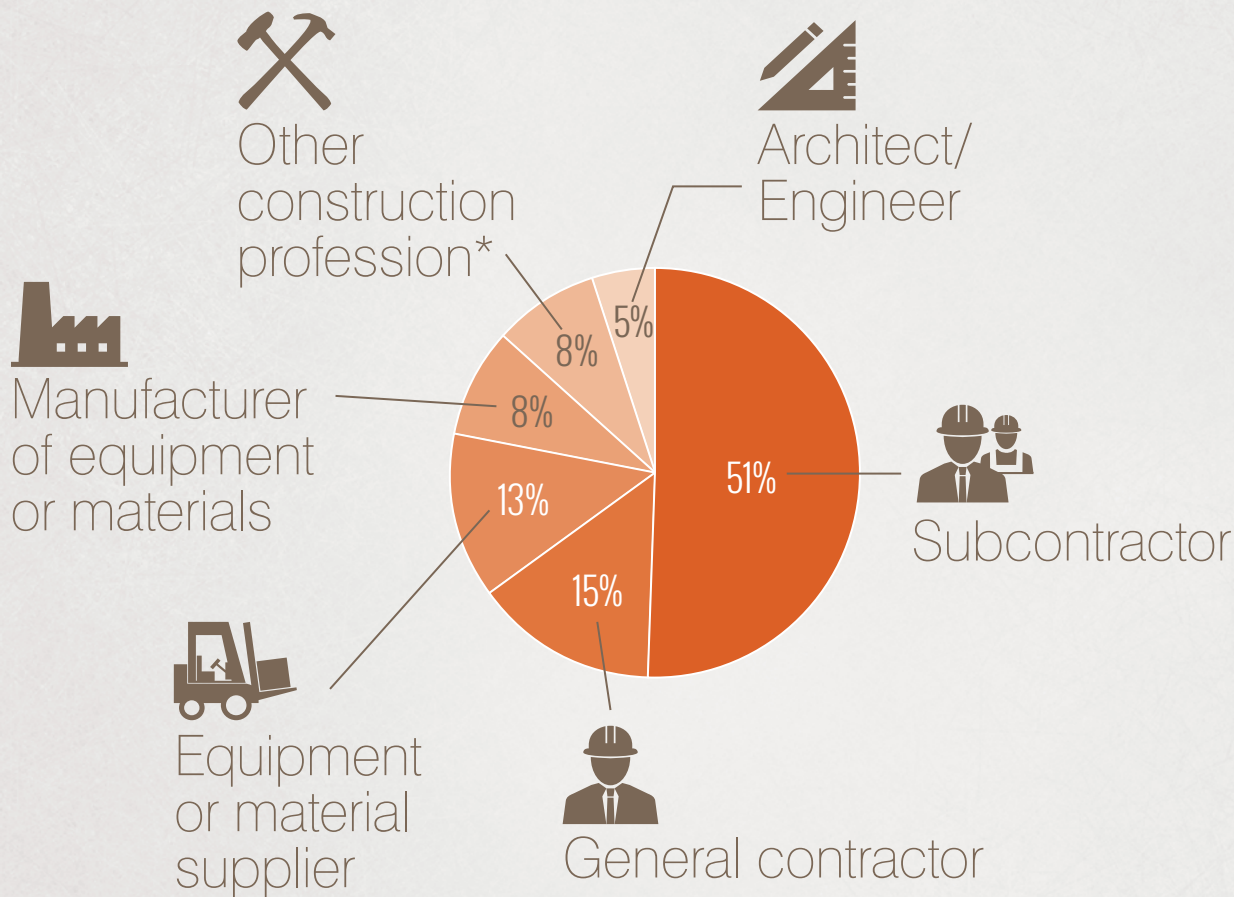
Where are you located in the state of Michigan?



Demographics

Which of the following designations best describes your primary business?

2018



What is the last grade of school you completed?

8%	High school
4%	Vocational/Technical school
21%	Some college
55%	College degree
12%	Post-graduate degree

What is your title?

24%	Owner
25%	President
8%	Chief Financial Officer (CFO)
4%	Chief Executive Officer (CEO)
39%	Other

What is your approximate age?

2%	21-34
4%	35-44
37%	45-54
39%	55-64
18%	65-Over

At the present time, what is your biggest concern about the construction industry?

Client education is necessary to understand the true costs in our business. Treating what we do like any other well-regarded profession. We consistently struggle with having to earn trust because there is so much mistrust in the residential remodeling sector.

Unrealistic schedules that are expected even if the project is behind schedule, inexperienced project management, construction documents leaving out details, timely payments — having to fund the project for owners/GCs that should be financially qualified.

Land development.

Lack of skilled tradespeople and younger workers coming into the industry.

Quality project management teams from GCs, CMs, and owners.

Productive union manpower.

Lack of time to properly complete projects with so many other projects draining available workers, materials, and equipment.

Will demand continue to exceed supply?

Competition from nonunion contractors.

Labor and management shortage.

Lack of skilled labor and age of employees.

Prompt payment on work.

Youth and replacing the aging workforce.

Competition and profitability.

The overall health of the economy in our region. I see so many other areas of the country growing, developing, and expanding, and our region has been status quo for years. If we were in the same situation as other areas, we might have more of the skilled workforce that we need.

Qualified labor in all aspects. Shop fitters/layout, office detailers, project managers, estimators. We cannot find qualified employees in all of those areas. We have hired more than a few people in the past year, and the quality of worker is terrible. Limited skills/knowledge/experience and no dedication to the job.

Qualified workers, qualified workers, and qualified workers. Easily the top three problems!

Labor force and recruiting young people to our industry.

Too many people who do not have enough experience are in charge, and they do not know enough to do their job properly.

Careers in labor are not generally sought after. Job candidates/employees are too often unwilling to work physical labor positions. The 'work ethic' is missing, as many people are not willing to put in the time required to learn a trade. Work (and income) affected by the weather is also difficult to sell to applicants.

We need more builders as opposed to managers.

Qualified installation contractors.

Lack of well-trained tradesmen.

Labor shortages in all all fields.

Qualified manpower.

Our aging workforce and our inability to replace that talent.

Lack of communication.

What is your suggested solution for this problem?

Education. We have developed tools and workshops designed to educate our clients versus selling to them. This is helping. We also ask them to compare apples to apples and understand product differences. You get what you pay for. Everyone wants the best and many times can't afford that.

Push the project from the beginning — finish trades always are expected to pick up the lack of other trades not maintaining schedule.

Get started at the grass roots with the students in school and tell them that college is not for everyone. Being a plumber or electrician is a good job and an important one.

Redevelopment of urban areas.

Find more skilled labor and train the youth to be involved in the industry.

We must embrace technology in a broader and fuller sense. The millennials are very tech-oriented, and they view construction as a very low-tech industry. This needs to change.

Stop dealing with low-quality contractors and deal with high-quality contractors who pay their bills on time and give discounted rates to these contractors.

As I said before, mandate recipients of government assistance to get training and enter the workforce and cut off benefits. If no one contributes to the fund, there will be no fund to draw from eventually.

Union should be more help to union contractors.

Recruit and train new people.

There needs to be some kind of construction pool that once you submit your invoice and it's approved, a check is cut right away. None of this 60-day wait from the owner before paying. Then, the general needs 15 days or more before they issue a check.

Training and technology are definitely are major issues that need to be addressed.

We need to get our area economy moving.

Encourage diversified training through co-op for real-world experience.

Increased pay for workers.

Everyone needs to have experience in the field if they are to be involved in field operations.

Shop for good help.

Early-skills training in high school in basic trade work. More training in the nonunion shop community. Greater long-term wages and benefits to attract those willing to work hard.

Focus on the programs that our colleges are teaching and evaluate the quality of the programs.

Training programs starting in the secondary education level.

As stated earlier, utilizing public school training to increase awareness and begin training.

Education.

Encourage young people to enter the trades by providing good wages, training, and benefits.

More networking events, better email and meeting skills.

What is your overall perception of the construction industry?

It's a tough business. Lots to learn and unfortunately they can be expensive learning experiences.

We build a product that can last forever. How many people can do that! I still enjoy driving through the city and saying to my grandchildren, "We Built That."

A very up-and-down industry.

It is more professional than the years leading to the recession.

Tough place to make a living. When things are good, it is a great place; when things die, it is difficult for everyone from laborers to the owners of large firms. This is a drawback when trying to recruit youth.

I think the construction industry has some of the most open and generous people. I have made lifelong friends through the industry from subs, vendors, designers, consultants, and even competitors.

Good.

Decline in union construction.

Always subject to the local economy and it's ups and downs.

The industry is great; the workforce is lacking.

Interesting and challenging, perfect situation.

I think that there will always be a need for the construction industry.

Challenges await, but overall industry is resilient.

Aging and needs to replenish with youth.

Good.

Inconsistent and sometime unscrupulous.

Good, as more attention is being paid to safety, and earth-friendly design, rejuvenation of existing spaces, and maximizing efficiencies.

The workers are not good. As a rule, they are terrible people.

It is very dynamic and ever-changing. We contribute greatly to the world around us in many ways.

It is in worse condition now than before the Great Recession.

Growing.

Demand is currently strong. Many employees make a good living. Attracting new employees is still difficult.

Fair as opposed to more glorious attractive "clean" industries, like finance!

Quality on the finished trades has fallen due to lack of expertise. General contractor take the lowest bid, many times using an unqualified installer for the project. Labor rates have not increased with the market. Still looking at 2009 levels in many cases. Many subcontractors are not building a business, they are just making wages. If there is a problem on the project, the GC will get stuck. Caveat Emptor.

Behind the times as to promoting itself for future careers. Opportunity is there but not enough takers. We are a generation past fixing the problem. It requires immediate attention.

Progressing in the forward direction.

I enjoy being in the construction field.

Looks good.

Tough, quickly evolving industry.

A little behind the times, "cronyism."

In your opinion, what is the single biggest problem you see in the industry?

Lack of skilled labor.

Labor.

Volatile.

Skilled labor.

Just answered this on the previous page.

Attracting youth.

Qualified contractors.

Productivity.

The clients determination to always negotiate the lowest cost contract, with the quickest turn around time, during a difficult time for all projects due to the current boom.

Workforce.

Communication from and to engineers, architects, general contractors, and tradesmen.

Availability of skilled labor.

Labor shortage and lack of morals.

Aging and not bringing in enough talent to replace the retiring workforce.

Owners are still driving numbers and schedules below market value.

Poor/Incomplete design drawings that are only updated as the project is built. I do not have time to RFI the project during the bidding process. I barely have enough time to get a good number out. This creates a large variation of pricing at bid time due to scope issues.

Lack of skilled trades.

Qualified workers.

I believe I have addressed this earlier.

Labor, both trade workers and management not having the right training and experience to do what they are suppose to do.

Prompt payments.

A shift in the general population that discourages labor careers, and focuses increasingly on STEM positions. Technology is so attractive that it pulls young adults towards those fields that rely heavily on it. While construction uses tech, the average laborer does not require it. We need another 'angle'.

The industry needs to market itself to young people and encourage them to enter in to both the skilled trade(s) and management fields.

Low-cost buyers.

Look above. Too many contractors are undercutting the legitimate trades. The general contractors don't care, and we are losing qualified people because of it.

As above.

Skilled-labor shortage.

Hiring practices.

The changing of players.

Reputation as an alternate to college.

Use of inferior equipment to strengthen the bottom line, facility safety issues.

