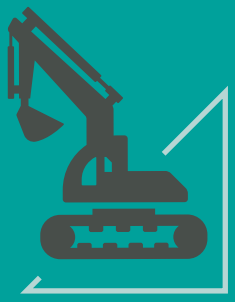
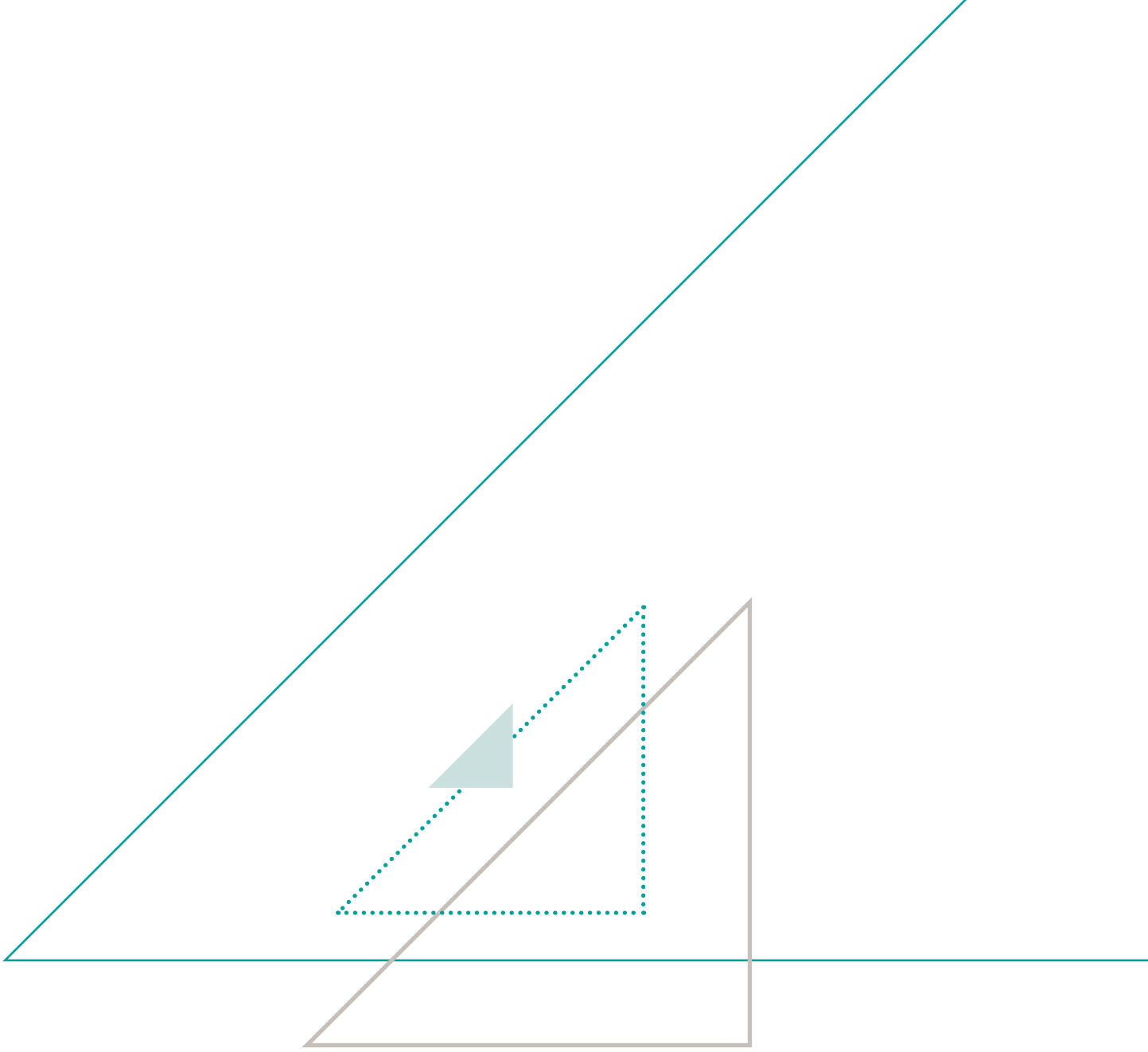


2019

CONSTRUCTION BUSINESS REPORT

THE INSTITUTE OF CONSTRUCTION MANAGEMENT

CONTENTS



Introduction

The Institute of Construction Management, under ownership by Foundation Software, conducted its first annual Construction Business Survey from May 15, 2019 to August 31, 2019. In creating the survey, the Institute of Construction Management sought to learn details related to the technology and processes contractors use to run their businesses. The online, 33-question survey was advertised and distributed to thousands of construction professionals via email, cross-promotion through industry publications and blogs, and Foundation Software's newsletters, mailing lists, trade show promotions, and website.

Due to the promotion of this survey through Foundation Software, some responses, particularly in regard to software used, may present an inaccurate representation of Foundation Software products within the results. Data has been left unaltered, though disclaimers where misrepresentations likely occur have been added in appropriate sections.

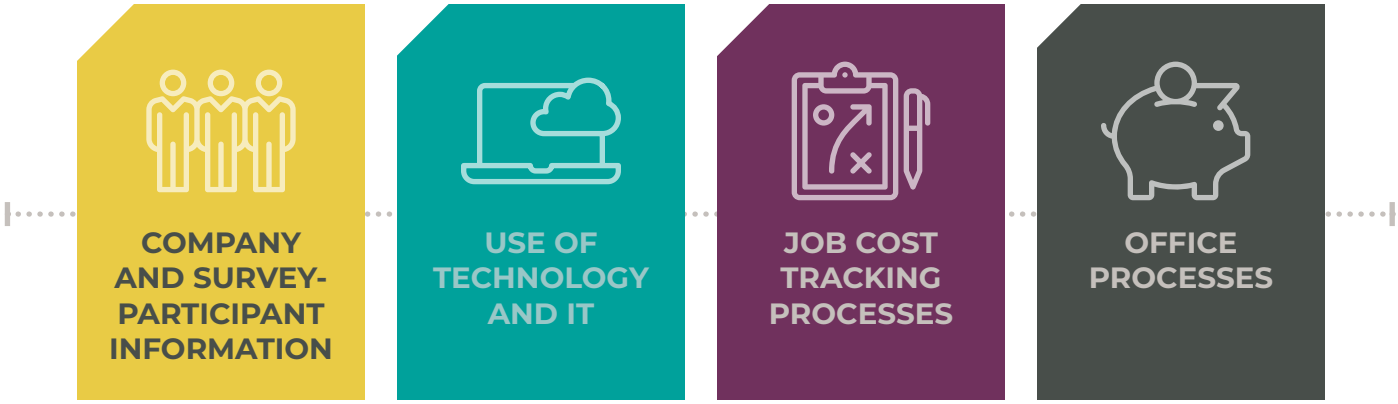
In total, over 400 industry professionals responded to the survey. The aim of this report is to provide an overview of those responses, coupled with observations and insights from an industry expert.

Survey Overview

The 2019 survey consisted of 33 questions. The survey began by asking the participant's role within their company. There were seven available options, ranging from executive positions and office staff to a choice of "Other," where the participant could directly fill in their role if it wasn't available from the list. The final question asked participants interested in receiving the results in this report to provide their contact information.

Twenty questions were multiple-choice, four were open-ended with participants filling in their own responses, eight were a mix of multiple-choice with an "Other" option in which participants could write a custom response, and one question asked participants to rank four options from most preferred to least preferred.

The overall content of the survey questions can be divided into four categories:



By centering questions around these categories, the goal of the survey was to not only gather information related to each construction company's use of technology and future IT strategy but also to learn about their current business processes.

At any point during the survey, participants had the option to skip a question or opt-out of the survey entirely, with their entered responses still recorded in the final data. Participants were encouraged to complete the survey with a prize incentive. Names of prize winners were drawn at random from the contact information they provided on the last question of the survey.

FOREWORD

I'm excited to present to you the first annual Construction Business Report. I'd first like to thank everyone who participated in the survey. We were thrilled with the amazing response rate for our very first survey and look forward to carrying this momentum through into 2020's version.

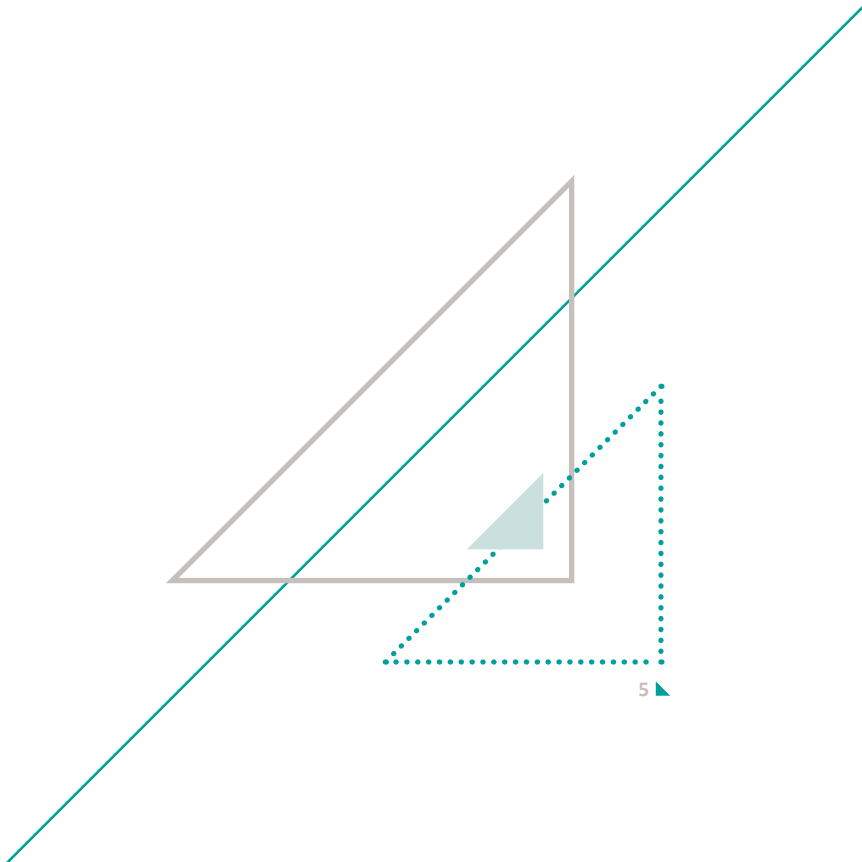
As VP of business development for a construction software company, one of the questions we're always trying to answer is "What do contractors need help fixing?" I'm not talking about what's on the jobsite — they've got that figured out — but the things that might need fixing when it comes to effectively running a business: inaccuracy of data, inefficiency in processes, lack of proper tools or anything else that can cause a loss of time or, worse, money.

To help find an answer, we created the 2019 Construction Business Report to learn more about how contractors run their businesses, what concerns they have for the future and the steps they're taking to address those concerns. From the software they use in the office to the processes they incorporate to make sure they're tracking spending and getting paid, our survey aimed to give us a peak behind the scenes into their day-to-day operations.

Our hope is that this report can be used to stimulate productive conversation and keep those conversations moving for both software and construction companies. Together, we can work to find the answers to the problems that need fixed.

I hope that you enjoy the following report and find the information it contains both enlightening and useful. I know I did.

Steve Antill
VP of Business Development, Foundation Software



Company Information

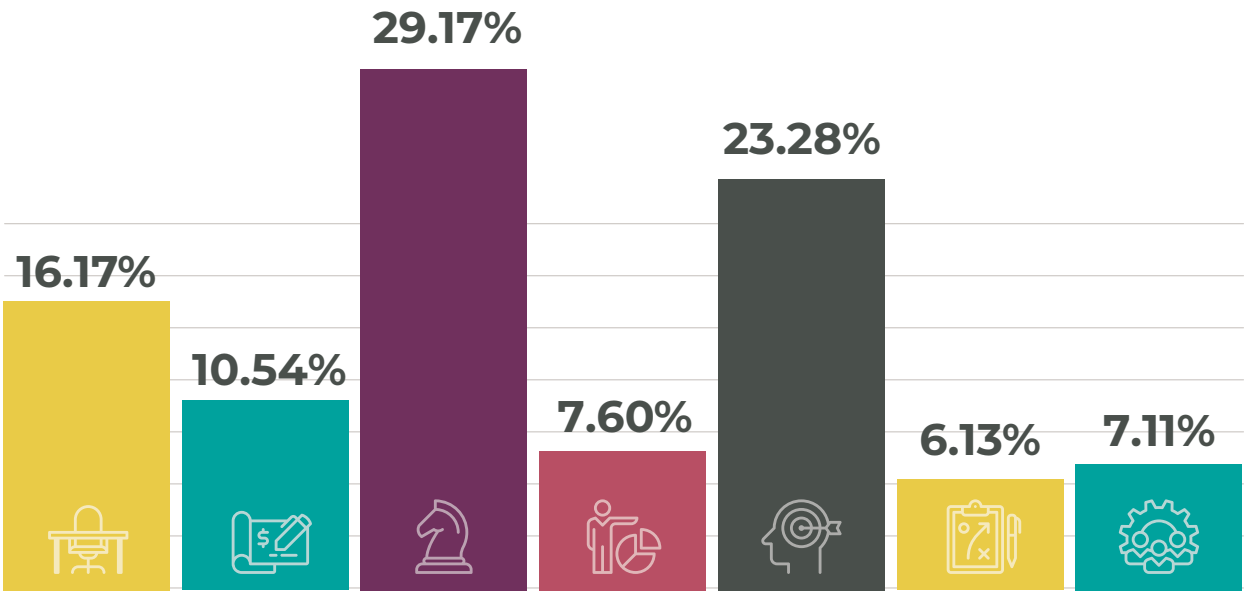
DEMOGRAPHICS

408 participants responded to the survey. The highest percentage of participants identified their role as an owner, president or CEO while the second-highest role was a controller or CFO. The lowest percentage identified as a project manager, service manager or regional manager. The second-lowest percentage came from participants indicating their role as "Other" and filling in a custom response. Roles from these custom responses ranged from pipefitter to estimator, with the highest percentage identifying themselves as working in an office manager or office administrator role.

The companies represented overwhelmingly classified themselves as both family-owned and-operated, with the largest percentage of revenue earned falling between $6-20 million and profit margins of 10% or higher. Companies that were family-operated but not owned, had revenue in excess of $200 million and reported up to 3% profit margins were the least represented in the survey.

When asked how they would describe their business, participants indicated that their companies were largely from the general contracting space. Companies focusing on electrical, mechanical, HVAC, plumbing, heavy/highway and drywall specialties were all heavily represented, with many listing multiple different specialty trades as a focus for their business. "Other," where participants could fill in their own description for their business, had the highest response-rate for specialty trades, with the largest percentage being landscaping, followed by equal percentages of demolition and glazing.

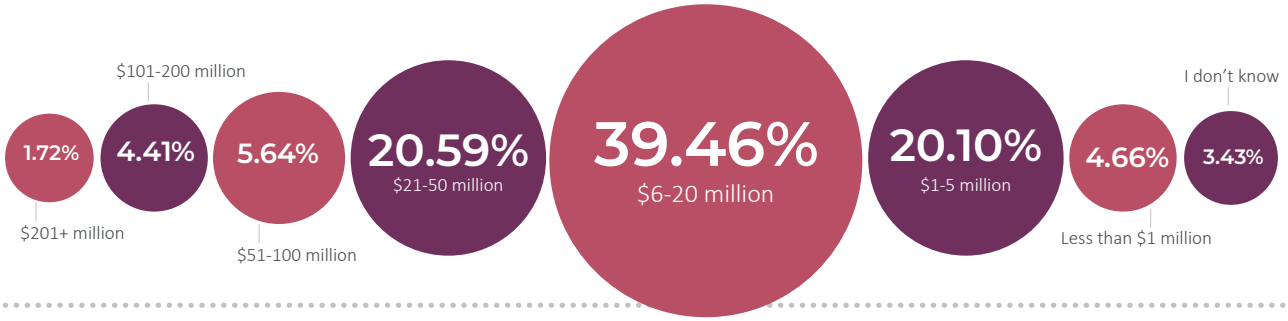
ROLE:



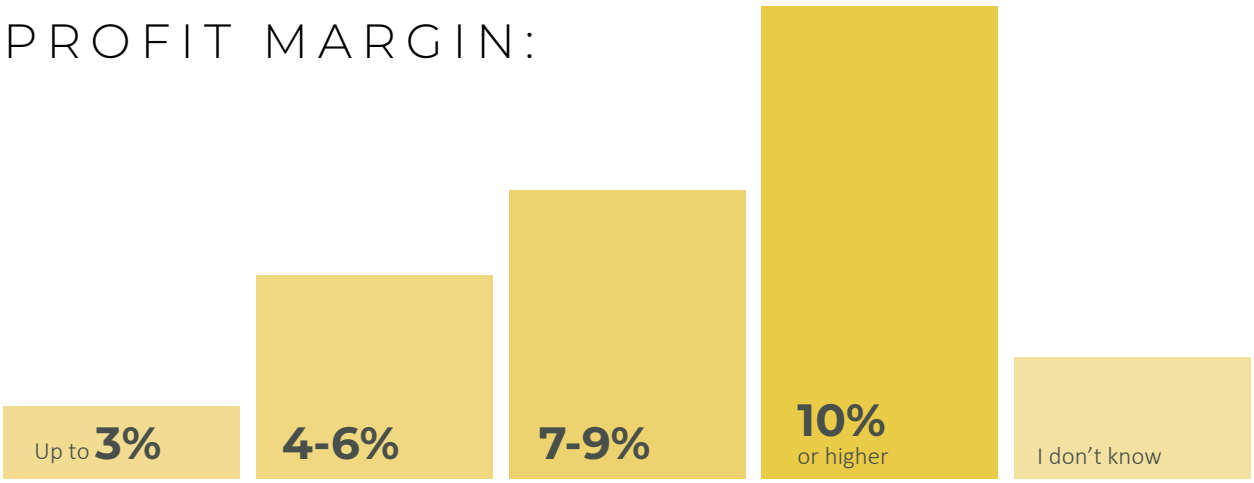
COMPANY TYPE:

Concrete	36
Drywall	30
Electrical	61
Fire protection	12
Flooring	16
General Contractor	120
Heavy/highway	43
HVAC	36
Masonry	17
Mechanical	37
Painting/coating	19
Plumbing	37
Roofing	21
Site work/excavation	45
Steel/iron	21
Other	91

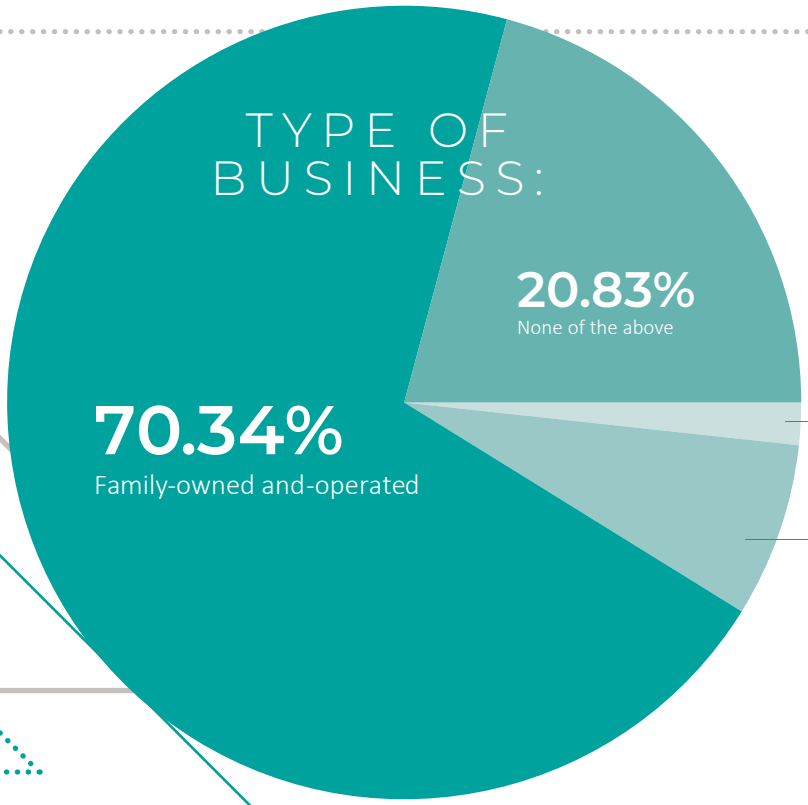
COMPANY REVENUE:



PROFIT MARGIN:



TYPE OF BUSINESS:

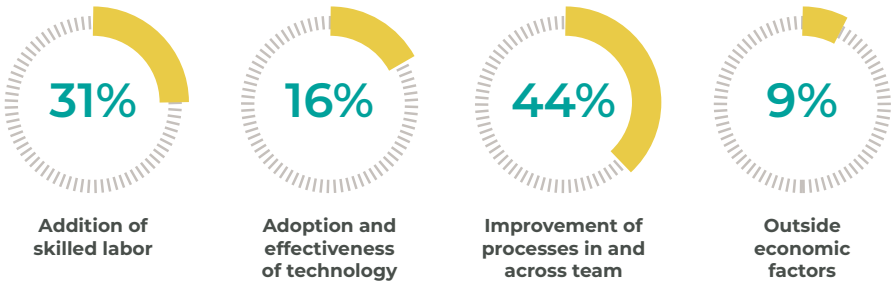


IMPROVEMENT GOALS

The survey continued by asking participants what they hoped the biggest improvement for their businesses would be over the next 12 months. The highest percentage looked for improvement of processes in and between teams as their highest priority, followed by the addition of skilled labor. Adoption and use of technology and outside economic factors were significantly lower in priority.

Participants listed communication and collaboration issues as their biggest cause of inefficiency, followed by their manual processes. Lack of access to data, as well as the accuracy of data, were not major sources of inefficiency for the majority of participants.

BIGGEST IMPROVEMENT IN THE NEXT 12 MONTHS:



Addition of skilled labor

Adoption and effectiveness of technology

Improvement of processes in and across team

Outside economic factors

CAUSES OF INEFFICIENCY:

Communication and collaboration issues

Lack of accessible data

Lack of accurate data

Manual processes

OBSERVATIONS

Most of the respondents seem to trust the data they have, which is a testament to both their technology and processes. That said, communication, which seems to be a problem across almost all businesses, could still use some improvement.

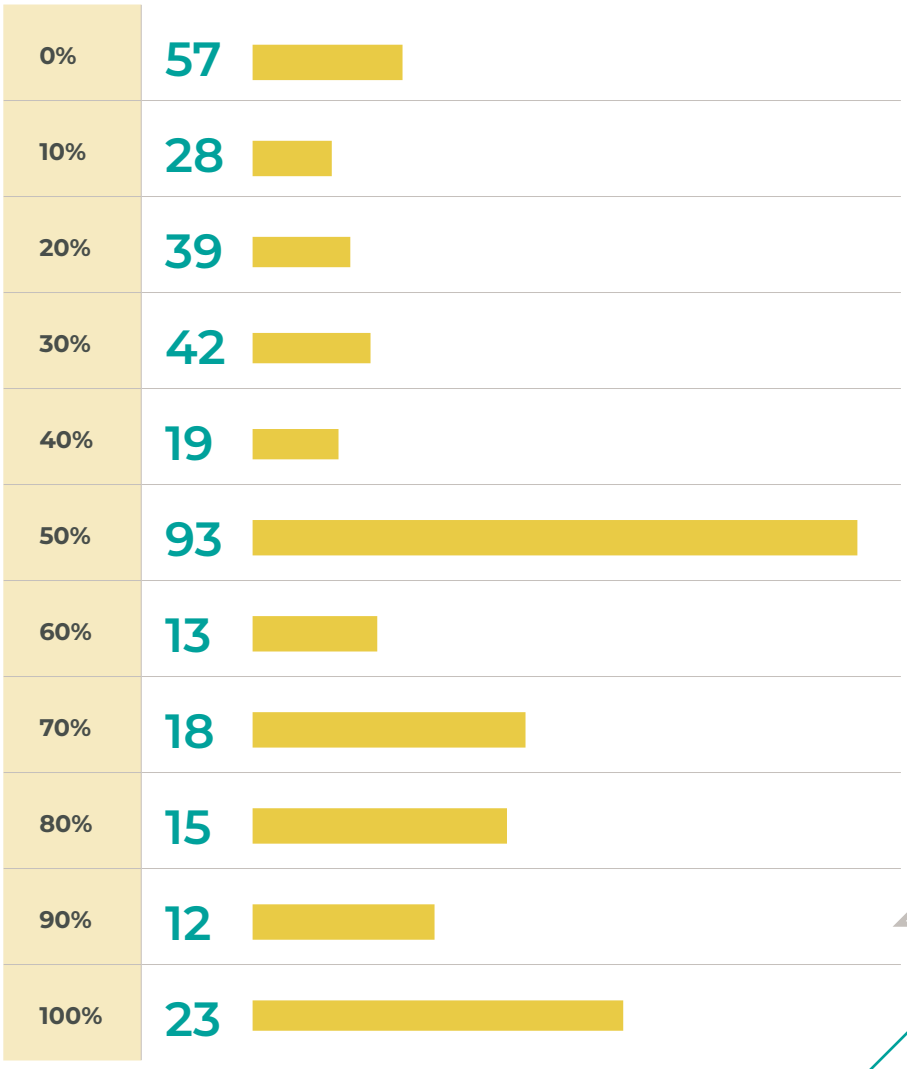
About 16% stated that adoption and effectiveness of technology were what they were looking to improve over the next 12 months. While this could show that respondents weren't interested in tech, it could also be that they're content with what they're working with at the moment.

Technology and Software Use

The survey asked participants to fill in a percentage estimate of how much of their current software was installed on-site vs. being cloud-based. The most frequently listed response was 50%, then 0% and 30%. The total average of all responses was 40%. The first, and most significant, exit of survey participants occurred with this question. In total, 49 participants exited the survey, leaving a remainder of 359.

Next, participants filled in the name of the software programs they use for different sections of their businesses. In order, accounting, payroll processing, estimating, project management and scheduling were the highest percentage of software types used. Customer relationship management and safety tracking were the two lowest-used software types. Within the results, infrequently occurring or indeterminable responses are grouped as "Other," unless otherwise listed.

PERCENT OF SOFTWARE ON THE CLOUD (WRITE-IN):



OBSERVATIONS

Given the pool of respondents, it's not entirely surprising that this grouping would be so deeply entrenched in technology and software for their businesses.

That said, it was still surprising the number of companies that use multiple pieces of software to accomplish the same business task. This could be an indication of inefficiency with their software or how it's used. It could also mean a lack of a definitive source of data.

ACCOUNTING SOFTWARE

FOUNDATION® was the highest percentage of accounting software used, followed by QuickBooks® and Sage®. A small representation of clients also indicated that multiple software programs were used for their accounting.*

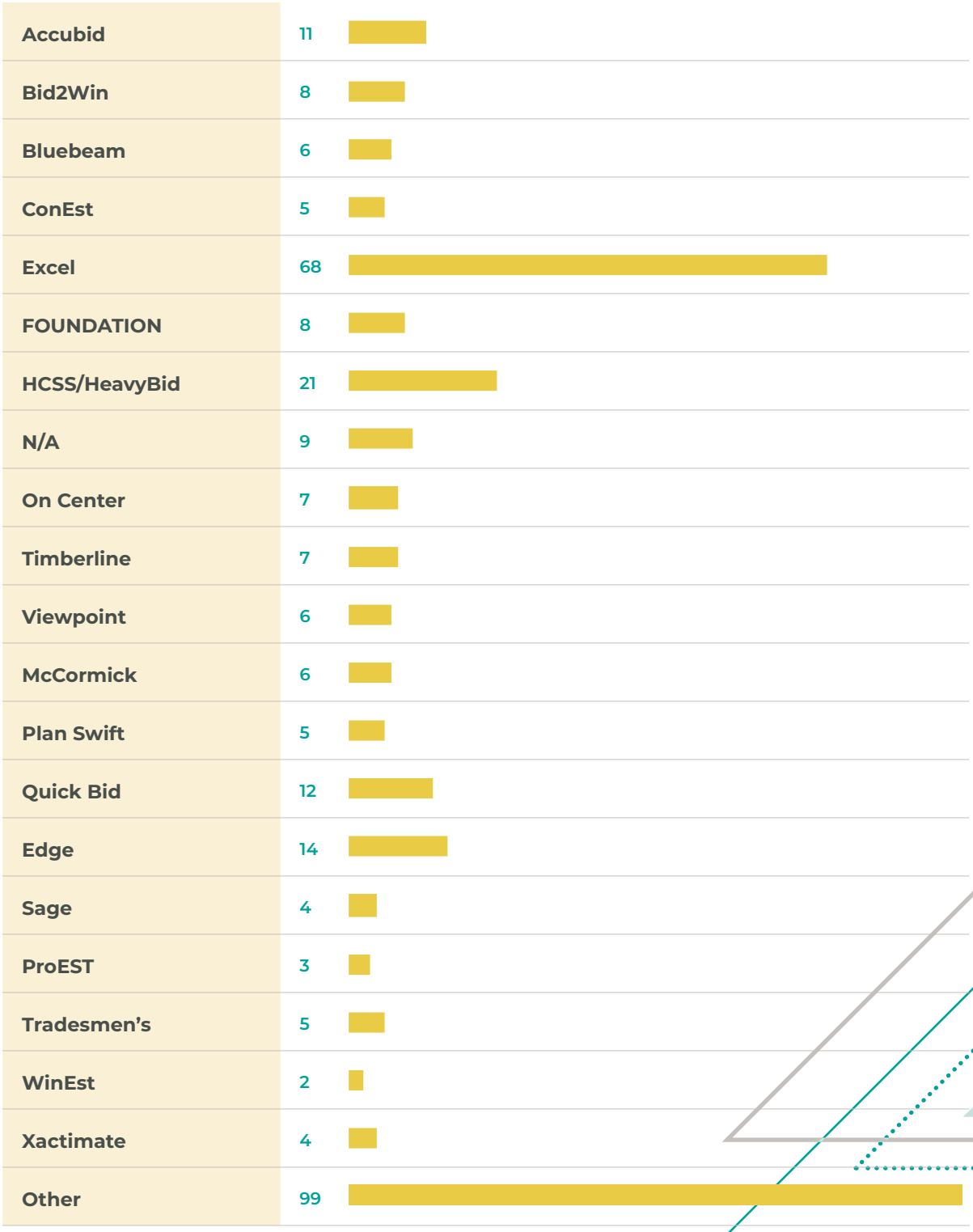
ComputerEase Software for Contractors	6	
intuit quickbooks.	50	
sage	26	
VIEWPOINT	8	
OTHER	38	
MULTIPLE	4	
FOUNDATION software *	222	

* *With Foundation Software's sponsorship and promotion of the survey, percentages of software used may be biased in favor of FOUNDATION ®.*

ESTIMATING SOFTWARE

The majority of participants listed Microsoft® Excel as their primary software for estimating. HCSS/HeavyBid, EDGE, Quick Bid/On Center and AccuBid were the next highest percentage of responses in order. Of all software types listed, estimating had the highest amount of variation in responses.

ESTIMATING:



PROJECT MANAGEMENT SOFTWARE

FOUNDATION® had the highest percentage for project management software, followed by Microsoft® Excel. A little over 10% of participants listed that their companies use multiple programs in tandem for project management.*

PM:

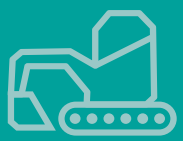
Sage	4
Excel	25
FOUNDATION	80 *
HCSS	13
MS Project	6
N/A	33
PlanGrid	3
Procore	17
Viewpoint	5
Multiple	24
Other	33

SCHEDULING SOFTWARE

The majority of participants do not use software for scheduling, with Microsoft® Excel and Project as the two most preferred programs. For those that did use scheduling software, a high level of variation was present.

SCHEDULING:

Excel	48
None	40
FOUNDATION	11 *
Primavera	5
MS Project	22
Manual	8
DataForma	3
HCSS Dispatch/ HeavyBid	6
Google Sheets/ calendar/drive	6
TSheets	3
Other	54



OBSERVATIONS

Of all the types of software, project management was where most respondents indicated that they use more than one type of software to accomplish the same task.

This could be that firms use multiple, integrated programs to create unified project management data, but it could also mean that a single program isn't far-reaching enough to address the needs of the entire office when it comes to project management.

* *With Foundation Software's sponsorship and promotion of the survey, percentages of software used may be biased in favor of FOUNDATION ®.*

HUMAN RESOURCES

The majority of participants did not use a software for human resources. FOUNDATION®, manual record-keeping and Microsoft® Excel were the three highest percentage of responses.*

HUMAN RESOURCES:

FOUNDATION	75	*
None	40	
Manual	11	
QuickBooks	3	
Sage	4	
Bamboo	7	
ADP	5	
Excel	10	
Paychex	4	
Other	45	

PAYROLL PROCESSING SOFTWARE

The vast majority noted FOUNDATION® as their payroll processing software, with Payroll4Construction.com — a payroll service rather than a payroll software — in second. QuickBooks®, ADP® and Sage® were the next highest totals, respectively.*

PAYROLL PROCESSING:

ADP	12	
FOUNDATION	187	*
P4C	30	
Sage	11	
QuickBooks	19	
Paychex	8	
Outsourced	5	
Viewpoint	5	
Other	55	

* *With Foundation Software's sponsorship and promotion of the survey, percentages of software used may be biased in favor of FOUNDATION ®.*

SAFETY SOFTWARE

Participants listed safety as, by far, the least used software type. Only 11% of companies used software for safety, with the highest percentage being Microsoft® Office/Excel. The second-highest percentage was for manual tracking.

SAFETY:

Office/Excel	33
Manual	12
In-house	5
None	54
Procore	4
Other	49

OBSERVATIONS

Not many contractors, at least from our respondents, use software for safety, preferring to track this manually or through spreadsheets. Either the available software doesn't address their needs fully or their processes are efficient enough that it's not worth the additional expense.

EQUIPMENT TRACKING SOFTWARE

38% of participants iindicated using some type of equipment tracking software, with FOUNDATION® and Microsoft® Office/Excel being the most frequently used.*

* *With Foundation Software's sponsorship and promotion of the survey, percentages of software used may be biased in favor of FOUNDATION ®.*

CUSTOMER RELATIONSHIP MANAGEMENT SOFTWARE

The second-least-used type of software, only 23% of companies indicated using a customer relationship management software. Microsoft® Office/Excel received the largest percentage of responses, followed closely by FOUNDATION.*

CRM:

Office/Excel	18
FOUNDATION	14 *
None	67
Manual	8
In-house	6
Other	45

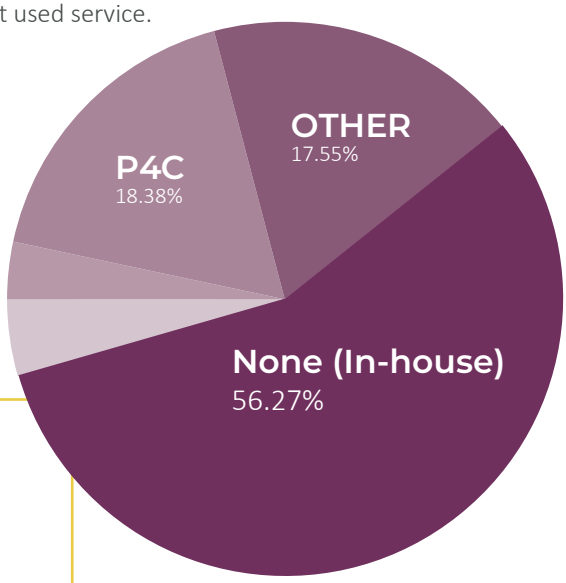
EQUIPMENT:

Office/Excel	39
FOUNDATION	42 *
None	44
Manual	5
In-house/ custom	4
Other	63

PAYROLL SERVICE

The majority of participants responded that they process payroll in-house. The next highest percentage used Payroll4Construction.com. Participants also selected ADP® and Paychex® as the least used service.

PAYROLL SERVICE:



* *Disclaimer: With Foundation Software's sponsorship and promotion of the survey, percentages of payroll service used may be biased in favor of Payroll4Construction.com.*

OBSERVATIONS

Not many respondents noted using a payroll service, which was a little surprising. It could be a cost-efficiency issue, but it may also be that their in-house processes are sufficient for processing payroll.

The survey next asked what factors influence the participants' companies when selecting technology or software. Needs of the office staff, needs of the field/operations staff and available integrations were the most influential factors, while estimated return on investment and company behind the technology or software were the least influential.

WHAT FACTORS INFLUENCE SELECTING TECHNOLOGY OR SOFTWARE:

Company behind technology	139
ROI	144
Input from end users	154
Knowing other contractors who use the technology	157
Integrations	225
Needs of the field/operations staff	257
Needs of the office staff	298

OBSERVATIONS

What's most important to contractors when buying software makes sense — how is this going to help address a problem the staff has? If it's not addressing a problem, contractors — as well as any shrewd business owner — won't buy into it.

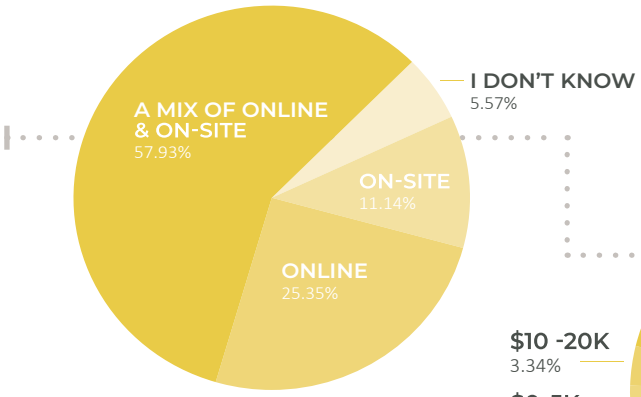
What's intriguing about the response to this question is that most of the respondents didn't really care who was behind the tech so as long as it plays nicely with what they're currently using. Contractors don't necessarily want, or need, a single solution to address all things, but each piece should work together.

SOFTWARE TRAINING AND BUDGET

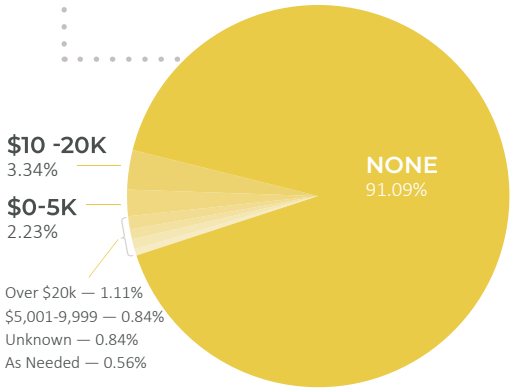
When asked of their preferred method for software training, an overwhelming majority indicated a preference for a mix of both online and on-site training. This was followed by online only as the second-highest response, with on-site only as the least preferred method.

Despite their preferences, 91% of participants indicated that their company has no budget for additional software training nor do 78% of their companies have an established IT budget as a percentage of their gross revenue.

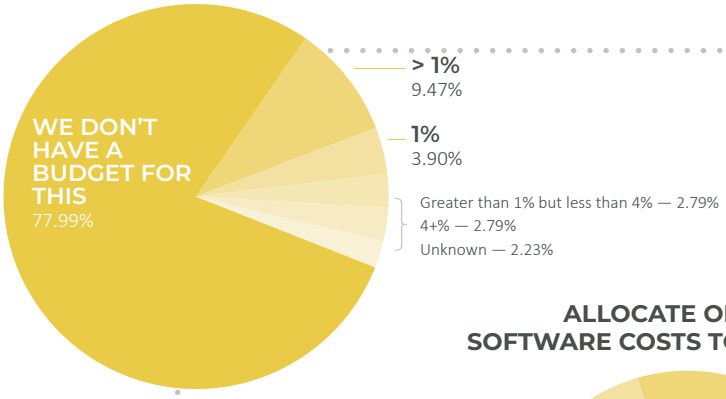
PREFERRED METHOD OF SOFTWARE TRAINING:



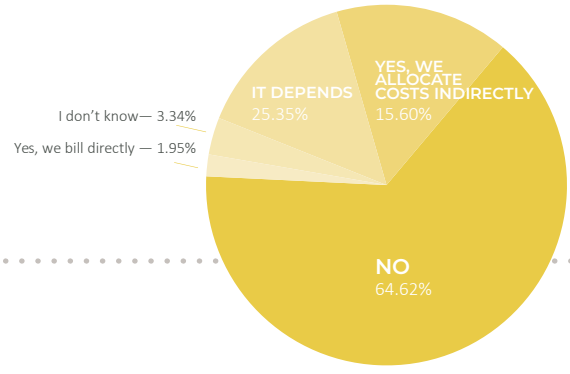
ESTIMATED BUDGET FOR ADDITIONAL SOFTWARE TRAINING:



IT BUDGET AS A PERCENTAGE OF GROSS REVENUE:



ALLOCATE OR BILL IT AND SOFTWARE COSTS TO A PROJECT:



OBSERVATIONS

Additional training, especially for software, isn't something that's usually a top priority for most businesses. There are more immediate needs with immediate payoffs that could likely be addressed instead, and paying for additional training might seem like an unnecessary expense. But additional training is an investment for the long-term. Even experts need a refresher every once in a while, and receiving additional training can help to increase efficiency — ultimately saving time and money.

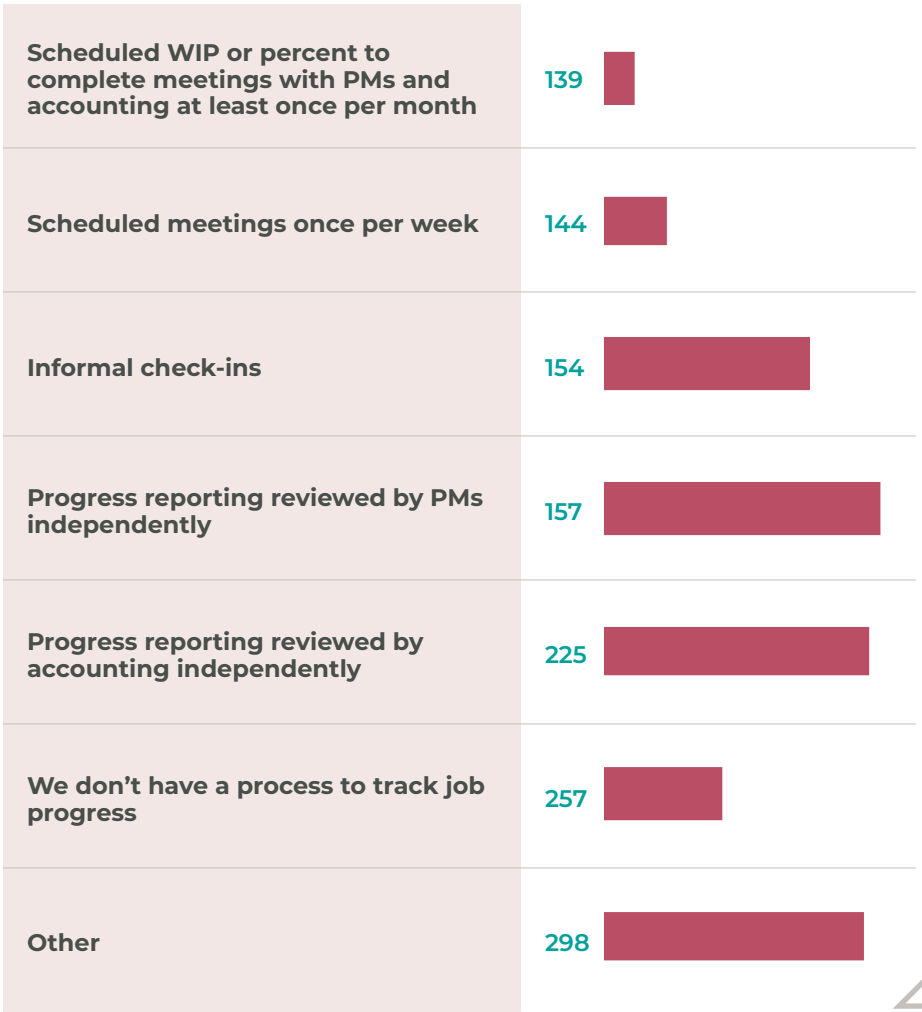
Jobs & Reporting

JOB TRACKING

Next, participants were asked to provide information regarding their job tracking and job costing strategies. Most companies surveyed have some process for project tracking in place, with the most common processes being project managers independently reviewing job progress, informal check-ins, and scheduled WIP meetings with both project managers and accounting at least once a month. The majority of companies also either provide reports for the project managers to review or allow them full access to their software to review their own reports.

An additional 13 participants exited the survey at this point, leaving 346 total participants.

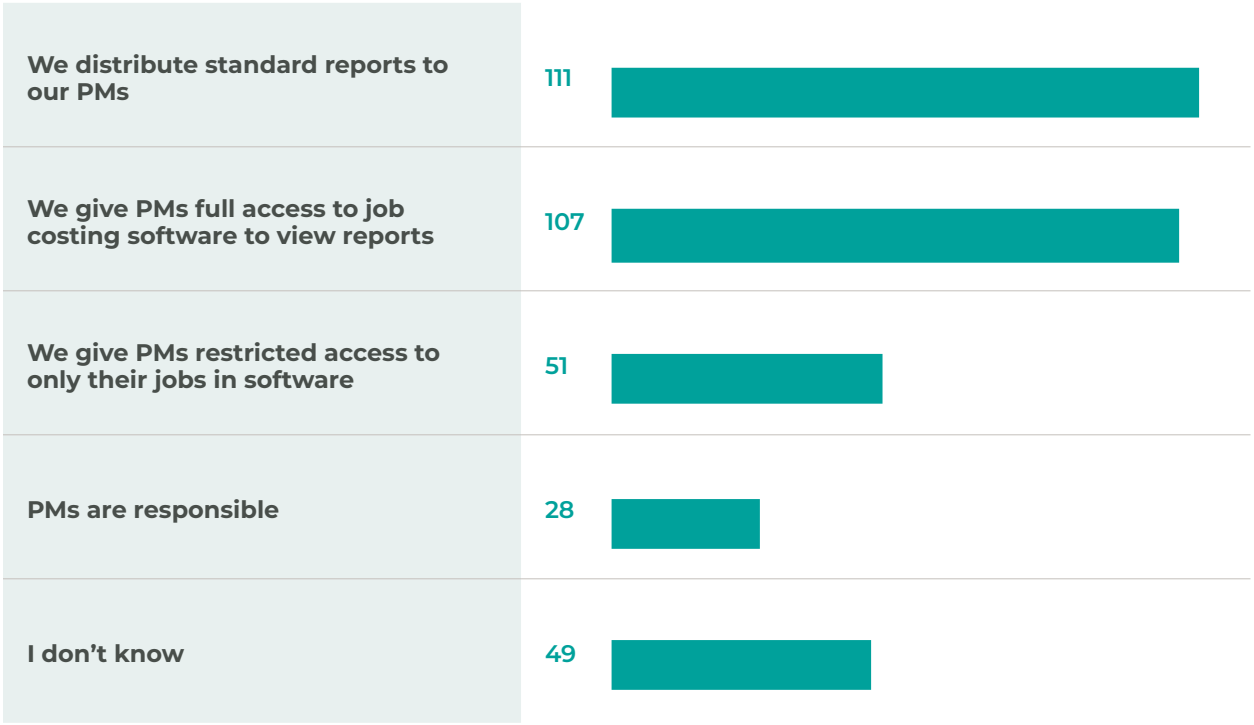
HOW DO YOU TRACK PROJECTS?:



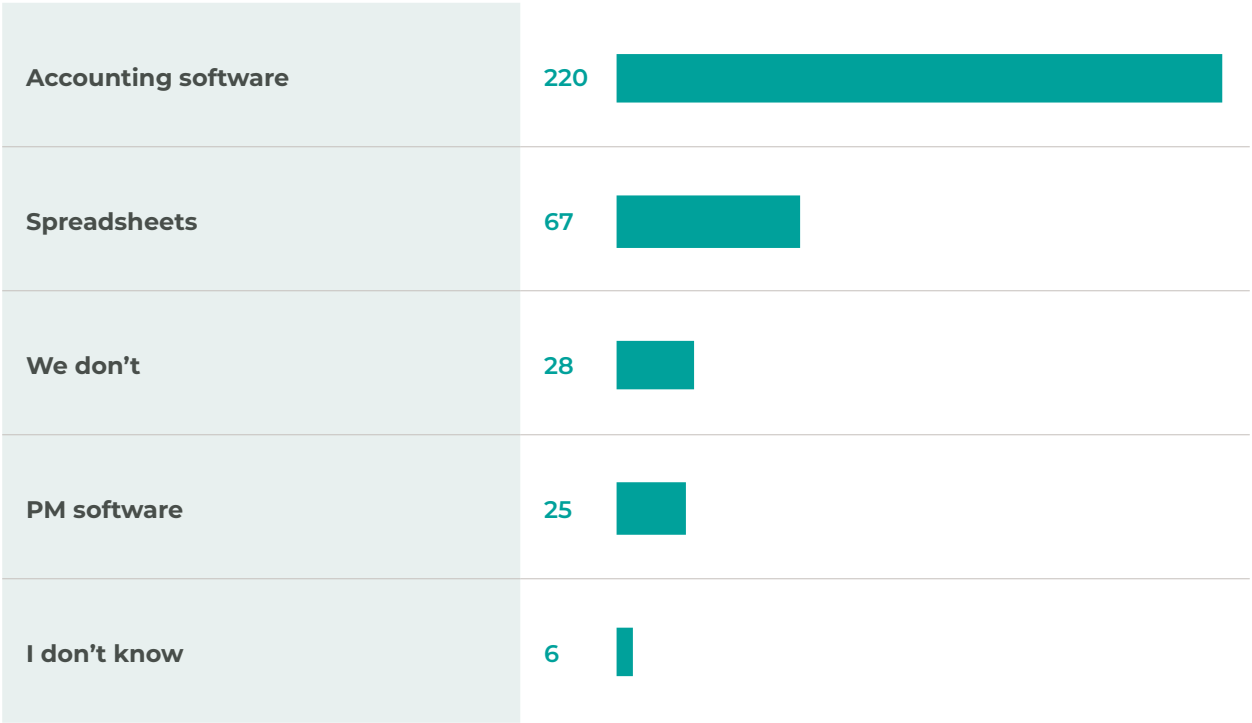
OBSERVATIONS

Most companies seem to have some type of process for reviewing reports, but there's a disconnect between teams based on their responses. By isolating project reviews to only accounting or only project management — or by not having any reviews at all — necessary information might be missing across teams. This likely contributes to some of the communication issues listed in responses to other questions.

HOW DOES YOUR COMPANY PROVIDE PROJECT COST REPORTING TO PMS:



HOW DOES YOUR COMPANY TRACK BUDGET VS. ACTUAL:

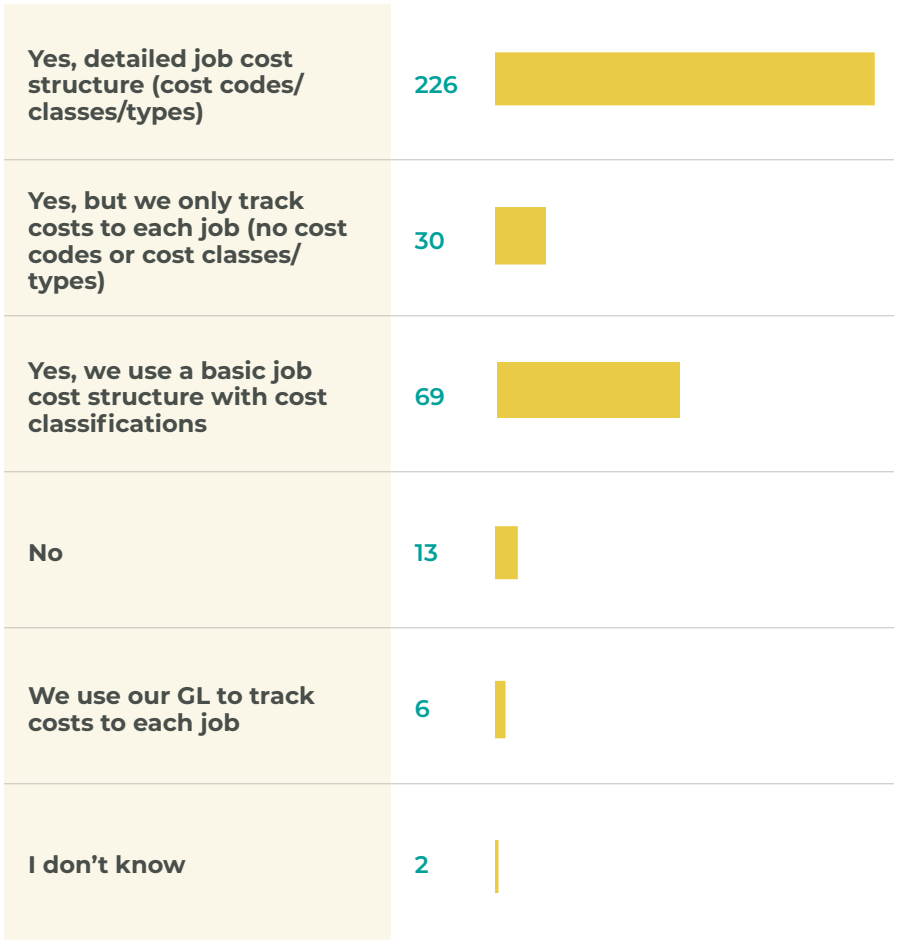


JOB COST STRUCTURE

The survey asked participants if they track job costing on projects and their processes for doing so. Around 77% of participants indicated that they track detailed job costing on projects, complete with cost codes, classes and types. Approximately 4% of participants indicated that they do not track job costing.

The majority of participants stated that their company's accounting, field ops and estimating departments all use the same job cost structure, while around 28% have discrepancies with their job cost structure between teams.

DOES YOUR COMPANY PERFORM AND TRACK JOB COSTING ON PROJECTS?:



OBSERVATIONS

Accuracy in job cost structure is what allows contractors to see where excessive spending occurs. While most of the responses show that teams are on the same page with job cost structures, the amount of actual cost codes used is interesting. With less than 10 codes, it's possible that different costs are being lumped together on jobs, making it difficult to determine what aspects of a job are causing budget problems. Similarly, with over 150 unique cost codes, costs might be assigned too granularly to notice any patterns — not to mention the increased chance for input error that could occur with using this many cost codes.

ACCOUNTING, FIELD OPS, AND ESTIMATING USE SAME JOB COST STRUCTURE:

Yes, same page	226
Accounting and field ops but not estimating	46
I don't know	24
Accounting and estimating but not field ops	22
Each team uses their own job cost structure	18
Field ops and estimating but not accounting	9

HOW MANY COST CODES ARE IN YOUR JC STRUCTURE:

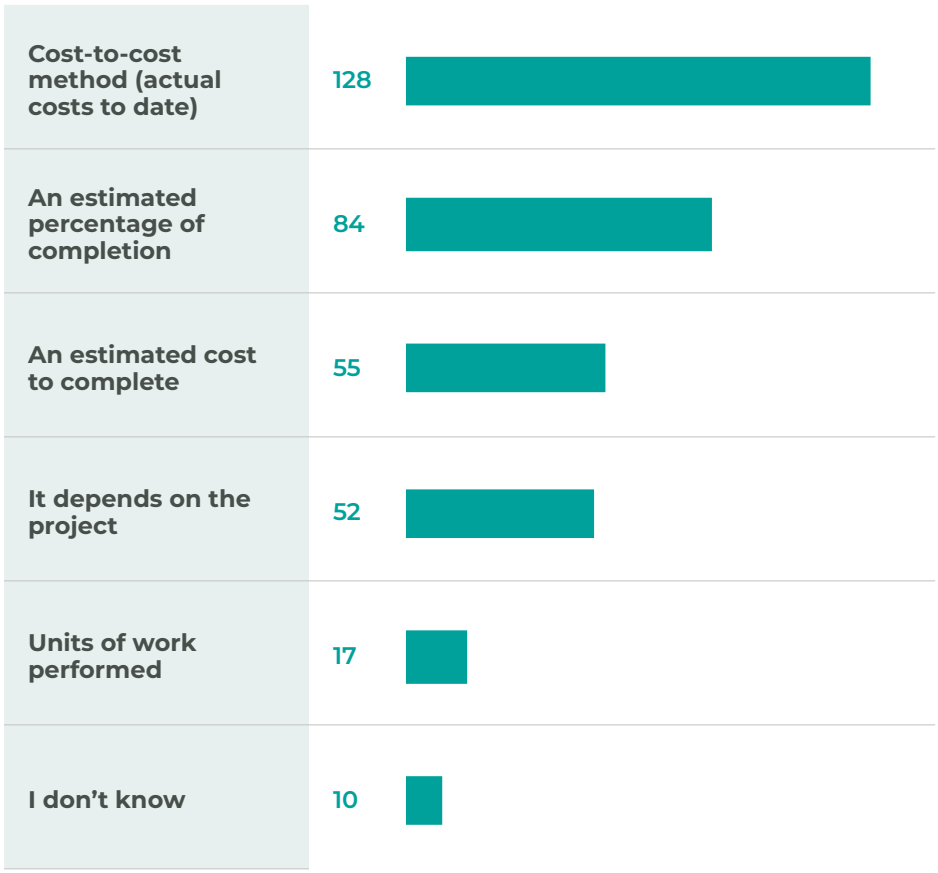
1-10	83
11-20	59
21-50	74
51-75	27
76-150	47
151+	54

REPORTING

When asked how their businesses measure percent to complete for their WIP reports, the most common method used was cost-to-cost, followed by estimated percentage to completion and estimated cost to complete. The least used method was the units of work performed.

The majority of participants indicated that their companies produce and review reports that correspond to their cash flows, with the most common responses being that they review statements of cash flows, project cash flow reports and cash flow forecasting reports regularly.

HOW DOES YOUR BUSINESS MEASURE PERCENT COMPLETE FOR WIP:

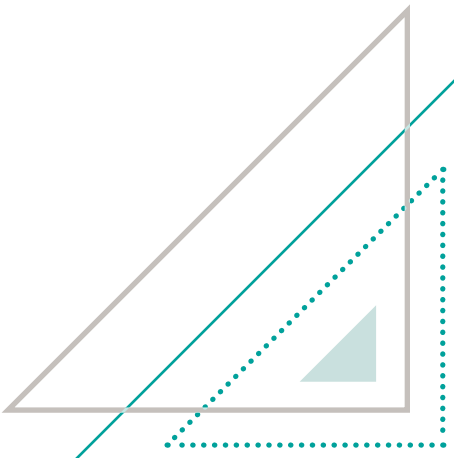


OBSERVATIONS

Despite the fact that the industry is so dependent on available cash flows, it's a little surprising to see how many companies surveyed don't regularly review their cash-related reports.

HOW DOES YOUR COMPANY MONITOR ITS CASH FLOWS:

We preview a statement of cash flows regularly	125
We produce a statement of cash flows but don't review it regularly	22
We review project cash flow reports regularly	90
We produce project cash flow reports but don't review them regularly	11
We perform cash flow forecasting and go over it regularly	99
We forecast cash flow but don't review it regularly	54
I don't know	46
Other	25



Office Processes

OFFICE COMMUNICATION

The survey next asked participants questions about their internal communication processes. Participants were first asked about follow-up meetings when a project is complete. The majority of participants indicated that they perform some type of project-closing meeting, though this number increases substantially if the job ran into some type of problem, whether over-budget, over-schedule or if a critical incident occurred.

Participants were then asked about communication between teams, particularly between field ops and accounting. While a very small majority indicated that their teams communicate well and don't experience problems, the rest indicated that some type of communication problem exists between teams.

BASIS FOR SETTING UP MEETINGS FOLLOWING PROJECT COMPLETION:

When a job runs over budget	109
When a job runs over schedule	72
When a job encountered a critical incident	77
We review all jobs after completion	183
We generally don't review completed projects	85

WHICH OF THE FOLLOWING BEST DESCRIBES HOW FIELD OPS AND ACCOUNTING WORK TOGETHER:

Each team generally stays out of each other's way	21
They communicate pretty well but experience friction	46
They communicate well and have good working relationships	175
They have communication problems and experience friction	20
They have communication problems but otherwise good working relationships	84

OBSERVATIONS

A little over half of the companies claim to review each job when it finishes, but that leaves a little under half that either don't review at all or only review when a problem occurs. While it's important to figure out what went wrong on a job when it happens, it can be equally important to figure out what went right. What jobs consistently finish at or under budget? Is this consistency the result of a particular crew, PM or supervisor? Knowing this information, and being able to back it up with quantifiable data, can help contractors to see not only what's working for their business but also aid in drawing conclusions as to why that might be the case.

Interestingly, while communication issues were reported as a problem earlier in the survey, half of all respondents indicated that their field ops and accounting teams work and communicate well with each other.

USE OF A CONSTRUCTION CPA

Most participants indicated that they use a construction-focused CPA at some point throughout the year. Approximately 31% indicate that they use a CPA, but not one focused on construction, while another 4% use no CPA at all.

DOES YOUR COMPANY WORK WITH A CONSTRUCTION CPA?:

CPA but not construction	108
No CPA at all	14
Yes, for annual audit only	74
Yes, on a quarterly basis	66
Yes, regularly as a business advisor	84

OBSERVATIONS

It's good to see that most companies that participated in the survey use a construction-focused CPA at some point throughout the year, though the expertise of a construction-specific CPA could help contractors year-round who might be experiencing issues with their accounting.

INVOICING

For the next section, the survey asked participants about their invoicing processes. At this stage, another 16 participants exited survey, leaving 330 participants. The vast majority of the remaining participants indicated that they have a documented invoicing process, though about 14% stated that they don't have such a process in place.

According to the majority of participants, the actual age of their receivables was between 30-59 days, with the next highest response being between 60-89 days. The lowest response for average actual age was 90+ days.

The majority of participants indicated that a designated member of their accounting staff was responsible for following up on overdue receivables, with scheduled follow-up emails or letters and follow-up calls being the two most preferred methods of helping turnover.

DOES YOUR COMPANY HAVE A DOCUMENTED INVOICING PROCESS:

Yes	282
No	46
I don't know	2

WHAT'S THE AVERAGE ACTUAL AGE OF RECEIVABLES (COLLECTION PERIOD IN DAYS):

Less than 30	29
30-59	195
60-89	88
90+	9
I don't know	9

WHO IN YOUR OFFICE IS RESPONSIBLE FOR FOLLOWING UP ON OVERDUE RECEIVABLES?:

Designated staff in accounting	172
Project manager	64
Accounting in general	63
Other (none, depends, me)	27
I don't know	4

WHICH METHODS HELP YOUR RECEIVABLES TURNOVER?:

Scheduled follow-up calls	195
Scheduled follow-up emails or letters	217
Interest terms written into contract	39
Incentives or disincentives for project managers	16
None	50
Other (file lien)	15

OBSERVATIONS

The construction industry is notorious for having a long collection period, but the companies in this survey were better than anticipated, with the majority of receivables collected in under 60 days. While some companies still average a 90+ day collection period, it's encouraging that the majority of contractors surveyed are getting paid in a relatively timely fashion.

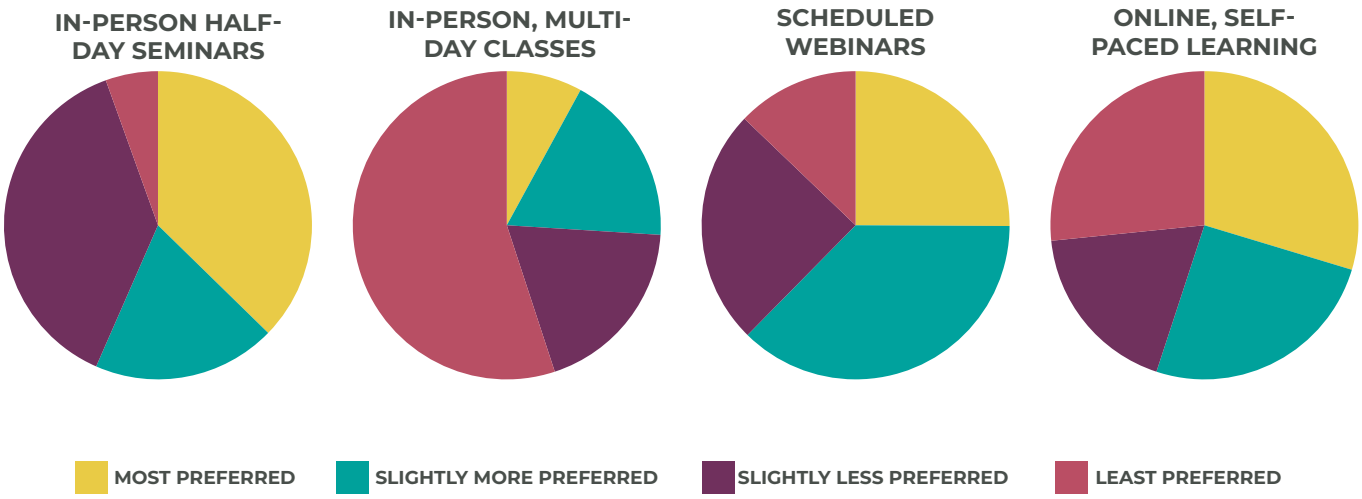
CONTINUING EDUCATION

The final section of the survey asked participants about their learning preferences and company budget for development and continued education. At this stage, an additional 3 participants exited, leaving a total of 327 to conclude the survey.

The preferred methods for continued education were in-person, half-day seminars and scheduled webinars. The least preferred method was in-person, multi-day classes.

Despite knowing their preferences, approximately 85% of participants indicated that they didn't have an allotted budget dedicated to continued education or professional development.

PREFERRED METHOD FOR DEVELOPMENT AND CONTINUING EDUCATION:



WHAT'S YOUR ANNUAL BUDGET FOR CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT:

We don't have a budget for this	279
$1-5,000	13
$5,001-10k	10
$10,001-20k	7
$20,001-30k	6
More than $30k	7
Unknown/Other	5

OBSERVATIONS

Like with additional software training, it's not that shocking that most companies don't have a set budget for continuing education. That said, while the immediate returns might not be noticeable, investing in staff development can help increase office efficiency.

Conclusion

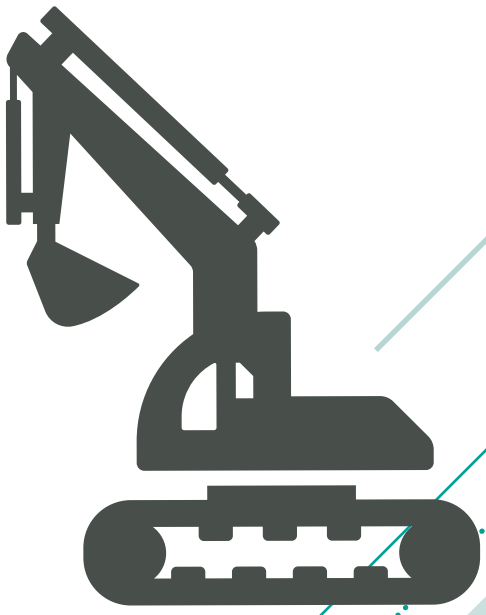
In the tech industry, the word "solution" is tossed around frequently: "It's not a *program*; it's a *solution*." But there's more to this than semantics, especially when that technology is in use for construction. It's about how practically a problem can be solved. Programs lacking in substance will inevitably be passed over for simple spreadsheets if the latter can perform a task more efficiently. The name on the product won't matter if it's not helping to fix a problem.

As a technology provider, the hard truth is that a single program won't be able to offer an all-encompassing solution to all of the problems that every contractor faces — the industry is too diverse for that. But together, multiple programs working together could create a solution for the majority of those problems. To do that, however, programs from any name need to find cohesion.

It doesn't need to be said any more than it already has that the construction industry has been slow to adopt technology, but we do appear to be approaching a tipping point, as contractors are now using multiple pieces of technology for their businesses. Much like every other industry, contractors are turning to technology to find the solutions to the problems they're facing, but that technology still has to address those problems practically.

The proof of that practicality lies with us, the technology experts, to show how our products can ease the lives of our users. Whether it's by simplifying project management, accounting, estimating or any of the other areas required to run a successful construction business, contractors are looking for solutions. So our challenge, then, is to keep the lines of communication open, both between us and the products we offer, to provide these solutions practically — even if it means relying on each other, and each other's products, to help solve problems outside of our expertise.

I like to think that we're up to the challenge.



Acknowledgements/ Special Thanks

The Institute of Construction Management would first and foremost like to thank everyone who participated in this survey. Your insights are invaluable in developing a greater understanding of not only the construction industry as a whole but also the practices that you have in place to run your individual businesses. Thank you also to everyone who promoted and helped in the creation of this survey. And thank ***you***, as well, for downloading and reading this report.

We look forward to hearing from you in next year's survey. If you have any questions, or would like to provide any feedback, please do not hesitate to contact us at (800) 246-0800.

About Us

The Institute of Construction Management was founded with the intent of learning more about the operations of construction businesses directly from construction businesses. Under ownership by Foundation Software, the Institute of Construction Management seeks to conduct unbiased, impartial research on construction business and technology.

Foundation Software is best known for creating FOUNDATION® construction accounting software, but that's only a part of what they do. Complete with standalone offerings like a payroll service in Payroll4Construction.com and an upcoming, standalone project management solution, Foundation takes pride in helping contractors run the business side of their construction business.