



A monthly newsletter of the Energy Facility Contractors Group's Project Delivery Working Group

Issue 7

February 2020

Project Management Stats: Part One

In preparing for this month's Practitioner, an article titled "Project Management Statistics: 45 Stats You Can't Ignore" caught our eye. Excerpts from the article are below, with a link at the bottom for those interested in the entire report. Part 2 of this article will appear in the March 2020 Practitioner.

The field of project management is changing, and it's changing fast. New tools, techniques, and frameworks are disrupting entrenched players and undoing long-held beliefs.

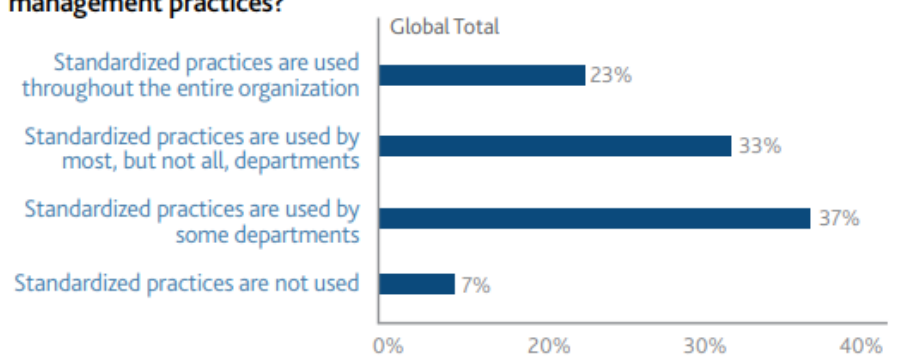
To prepare for these changes, you first need to arm yourself with hard facts. What is the exact rate of project failure? What are the underlying causes of failed projects? What makes for successful PMOs? And what kind of PM tools best fit your needs?

To answer these questions, we've compiled a comprehensive list of the latest project management statistics. With more than 50 data points culled from dozens of studies, this page is your de-facto source for all things related to project management statistics.

Project Management Adoption Statistics: What is the adoption rate of project management software across organizations? How do companies use formal training programs? What kind of PMOs do organizations employ?

- Only 58% of organizations fully understand the value of project management. (PMI)
- 93% of organizations report using standardized project management practices. (PMI)
- 68% – more than 2/3rds – of organizations in PMI's annual survey said that they used outsourced or contract project managers in 2018. (PMI)

Q: To what extent does your organization use standardized project management practices?



- Only 23% of organizations use standardized project management practices across the entire organization. 33% use standardized practices, but not across all departments. While a small portion – 7% – of organizations don't use any standard practices at all. (PMI)

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- Organizations are often guilty of not using standardized PM practices, especially across the whole organization.
 - PM software adoption remains low. As per Wellington’s survey, only 22% of organizations use a PM software. Coincidentally, 55% of organizations don’t have access to real-time KPIs. As a result, 50% of respondents said that they spend one or more days to manually collate project reports – highlighting the immense productivity gains on offer by using project management software. (Wellington)
 - PM software adoption is changing, slowly but surely. Between 2017 and 2018, the percentage of organizations using spreadsheets to manage their agile projects dropped from 74% to 67%. Instead, these organizations moved to specialized PM tools. (VersionOne)
 - 77% of high-performing projects use project management software. Despite its impact, adoption rates for PM software remains low (22% – see above). 66% of project managers say that they would use PM software more extensively if they had adequate support from their organization. (Hive)
 - File sharing, time tracking, email integration, Gantt Charts, and budget management are the top five most used and requested features in project management software. (Capterra)
- 56% of organizations have used only one project management system. On average, organizations spend \$861/month on PM software. A majority – 54% – use on-premise PM software, though this is quickly changing. (Capterra)

The PRACTITIONER

Published monthly for the EFCOG’s Project Delivery Working Group by:

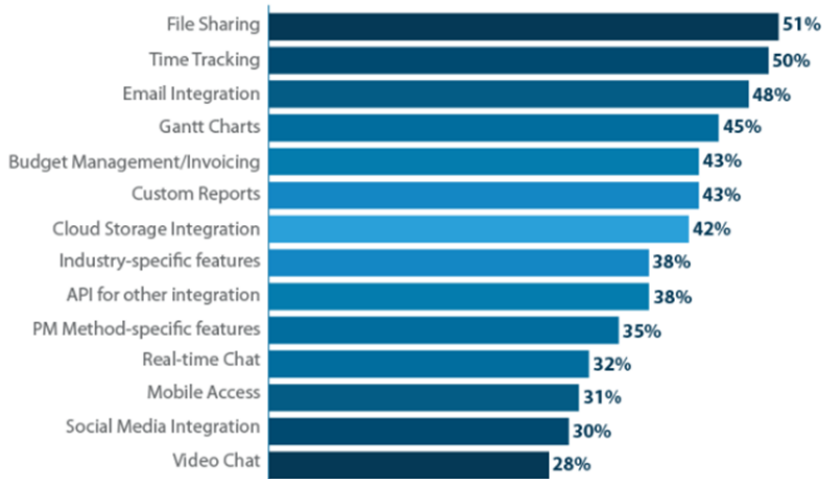
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Most used project management software features



As this chart shows, social media and video chat are among the least-used PM features

Project Management Office (PMO) Statistics: As we wrote earlier, creating a project management office (PMO) can drastically improve productivity and bring greater clarity to your PM processes.

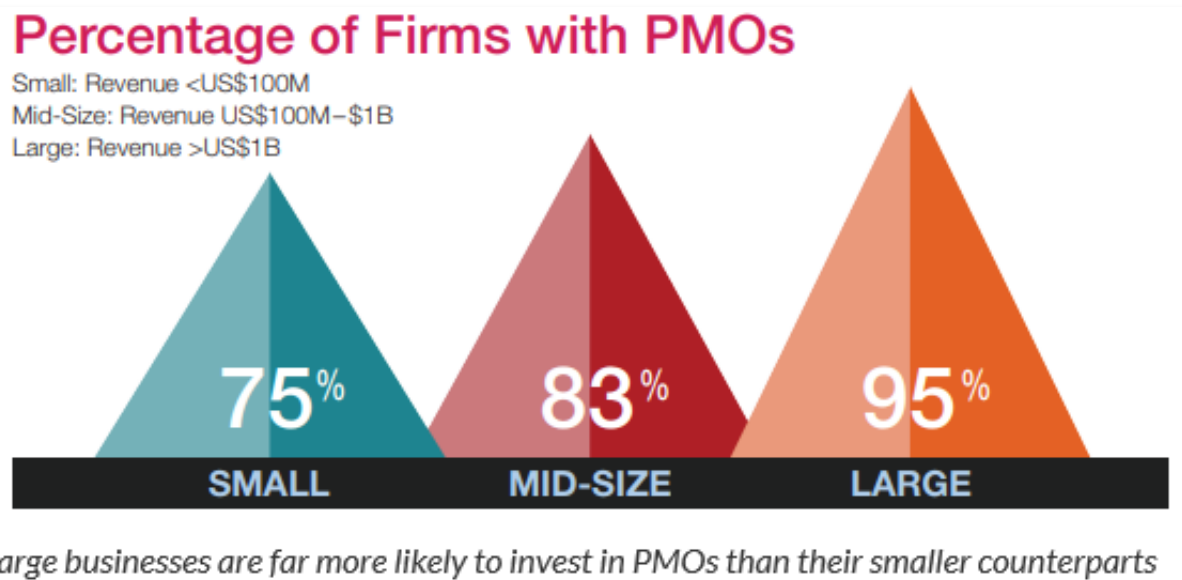
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As these project management statistics show, creating a PMO can have substantial real-world benefits:

- Only 41% of organizations with an enterprise-wide project management office (EPMO) report that it is highly aligned to the organization's strategy. (PMI)
- PMO and EPMO: 80% of high-performance organizations – Champions – have a PMO. 72% say that there is a strong alignment of the EPMO to their organizational strategy. (PMI)
- Project management offices remain more popular among larger firms. 95% of large firms (>\$1B revenue) reported having dedicated PMOs, either in specific departments or across the entire organization. In contrast, only 75% of small firms (<\$100M in revenue) had dedicated PMOs. (PMSolutions)



- The value contributed by PMOs is on the up. In 2016, PMOs delivered a 33% improvement in projects delivered under budget, 27% improvement in customer satisfaction, 25% increase in productivity, and 25% reduction in failed projects. Altogether, PMOs led to \$175k cost savings per project. (PMSolutions)
- PMOs are growing in both size (by budget and staff) and importance. In 2016, the average PMO accounted for nearly 5% of the project budget and had a staff size of 9.49% of project managers report to the PMO (up from 42% in 2012). Incidentally, high-performance organizations had far higher percentage of project managers reporting to the PMO than low-performing organizations – 68% vs 53%. (PMSolutions)
- It's not always a rosy picture for PMOs. 50% of respondents in a survey said that their biggest challenge is that PMO processes are seen as overhead. 42% said that their organizations are resistant to change and adopting new PM methodologies. 41% said that their biggest challenge is demonstrating the added value of the PMO. (PMSolutions)

Project Management Practices Statistics: Project management practices are rarely uniform across organizations. Different practices also yield variable results for different businesses.

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In these project management statistics, we'll look at the adoption of different PM practices:

- Risk management practices are widely used across most organizations – 27% say they “always” use them, while 35% use the “sometimes.” Only 3% of surveyed organizations say they “never” use risk management practices. (PMI)
- Senior executives are often far more aware of the value of project management than rank and file members. Among senior leaders, 87% say that they “fully” understand the importance of PM practices. (PMI)
- Only 32% of organizations say that they're satisfied with their current PM maturity level. 67% would rank their department's PM maturity level at 3 or more (out of 5 levels). However, only 47% would rank their organization-wide PM maturity at level 3 or higher. This shows that there is significant divide between department-level PM maturity and organization-level maturity. (Wellington)
- Strong support is a key ingredient of project success. In PMI's 2017 survey, 62% of successfully completed projects had sponsors who were actively supportive. 78% of respondents in a Geneca survey also said that they'd like business stakeholders to be more responsive and engaged in the project. Another study found that 33% of projects fail because of a lack of involvement from senior management. (PMI, University of Ottawa)
- A whopping 97% of organizations believe that project management is critical to business performance and organizational success, according to a PwC study. The same study also found that 44% of project managers use no software, even though using any popular commercially available PM software has been known to improve performance and project satisfaction. (PwC)
- Businesses say that the biggest impact of project management was on team communication (52%). 44% also said that it improved the quality of the final product, while 38% said that it improved customer satisfaction. 66% of respondents in Capterra's survey also said that they used project management software to communicate with clients. (Capterra)
- As of February 2019, the average annual base salary for a project manager in the US is \$75,474. PMs in the IT sector make substantially more – IT Project Managers take home an average of \$97k in base pay. Additional cash component can vary a great deal, ranging from a low of \$1,541/year to \$19,755/year with an average of \$6,473. At this average the take home pay for a project manager, on average, is in excess of \$80k. (Glassdoor)

It is not one world

In this country, most of industry is requirement and rule based. And while we often complain about the rules and the associated cost, it is sometimes good to pause and take a look at what our industry could look like without regulation.



—From the [Business2Community](#) website

Behavior-Based Project Management

What is the scheduler's role?

Forecasts are very important in our project work. They are predictions that enable us to:

- Align resources
 - Have subcontractors show up when needed
- Help determine our critical path
- Reduce waste from resource misalignments, and
- Give our client an idea of when we expect completion so they, in turn, can inform their stakeholders

However, schedule forecasts can sometimes be way off, and many times they are optimistic. This led me to look closer at the roles of the people who work so hard to provide those forecasts.

Generally, there are subject matter experts (SME), control account managers (CAM), and project managers (PM) who provide schedule durations to the professional who enters the data into a schedule. This professional may be called a Scheduler, Project Controls Engineer, or some other title. In any case, the input for the forecast is communicated by the SME, CAM, or PM (we'll call these folks the "Forecaster" for the sake of keeping our language clear and crisp, and the professional who's entering their data into the schedule the "Scheduler").

In behavioral forecasting, the facilitation of the prediction (e.g., the Scheduler facilitating the session with their Forecaster) can help de-bias the forecast so that it is more accurate. In this sense, the Scheduler provides the outside view to help the Forecaster get a more complete perspective on the work, thus inserting more realism into the forecast. Together, the team (Forecaster and Scheduler) can increase the probability of the work being executed as forecasted.

However, what do our current Scheduler roles look like across the DOE complex? The answer to this question varies. Some view the role as data entry for the Forecaster, some view it as the Forecaster's right-hand woman/man, while others say a Scheduler is purely a support function and should contribute little to the decision-making in the project. But if the Forecaster will make better predictions in their forecasts with facilitated forecasting, and the Scheduler is already in regular communication with the Forecaster, should we be re-evaluating the role of the Scheduler?

I'm not making a call here, but I would like to pose the question to the complex. The science is starting to show us that we can be much better at project prediction — including up-front planning, monthly forecasting, and risk analysis — and it all starts with the computers between our ears.

Though there are many more mitigations to improve forecast accuracy that we haven't looked at in this article, behavioral forecasting through facilitated forecasting is a very relevant one. And if we can become more efficient and effective at predicting and delivering DOE work, is it not worth evaluating how the Forecaster and Scheduler can help facilitate improved delivery? I leave it to you to ponder.

— Author Josh Ramirez is a Ph.D. candidate and project manager in the Washington River Protection Solutions' Earned Value Management System Compliance and Reporting organization

PDWG Goings-On

Upcoming events:

📅 **ASU Maturity Study
Core Team sixth
meeting in DC, March
2020**

📅 **PM-30 Project
Management Workshop
Meeting in DC, April
2020**

Just for Fun: February's Notable Events and Famous Birthdays

1 — Actor Clark Gable (1901), singer Rick James (1948) and MMA fighter Ronda Rousey (1987) were born, and the space shuttle Columbia broke apart (2003)

2 — The Mexican-American War ended (1848), and actress **Farrah Fawcett** (1947), model Christie Brinkley (1954) and singer Shakira (1977) were born



3 — Actor Nathan Lane was born (1956)

4 — The American Revolutionary War officially ended (1783), and aviator Charles Lindbergh (1902), civil rights activist Rosa Parks (1913), singer Alice Cooper (1948) and football star Lawrence Taylor (1959) were born

5 — Baseball legend Hank Aaron was born (1934)

6 — Baseball legend Babe Ruth (1895), President Ronald Reagan (1922), and singer Bob Marley (1945) were born

7 — Author Charles Dickens (1812), singer Garth Brooks was born (1962), the Beatles played their first concert in the U.S. (1964), comedian Chris Rock (1965) and actor Ashton Kutcher (1977) were born, and the Soviet Union collapsed (1990)

8 — **The Boy Scouts of America was founded** (1910), and actor James Dean (1931), football player Julio Jones (1989) and basketball player Klay Thompson (1990) were born



9 — President William Henry Harrison was born (1773), volleyball was invented (1895), actor Joe Pesci was born (1943), the Hollywood Walk of Fame opened (1960), and the first American troops were sent to Vietnam (1965)

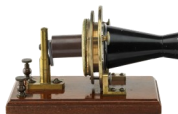
10 — The fire extinguisher was invented (1863), and golfer Greg Norman was born (1955)

11 — Inventor Thomas Edison (1847), actor Burt Reynolds (1936), singer Sheryl Crow (1962) and actress Jennifer Aniston (1969) were born

12 — President Abraham Lincoln and biologist Charles Darwin (1809), basketball legend Bill Russell (1934), and football star DeMarco Murray (1988) were born

13 — TV host Jerry Springer (1944), basketball coach Mike Krzyzewski (1947) and football star Randy Moss (1977) were born

14 — **Alexander Graham Bell invented the telephone** (1876), and football star Alshon Jeffery was born (1990)



15 — Inventor Galileo Galilei (1564) was born, the Spanish-American War began (1898), the first Teddy Bear was made (1903), and hockey star Jaromir Jagr was born (1972)

16 — Singer/politician Sonny Bono was born (1935), Nylon was invented (1937), rapper/actor Ice T was born (1958), the 9-1-1 system went into service (1968), and football star Jerome Bettis was born (1972)

17 — Football legend Jim Brown was born (1936), the first weather

satellite was launched (1959), and comedian Larry the Cable Guy and basketball legend Michael Jordan were born (1963)

18 — The first 3-D movie opened (1953), and actor John Travolta (1954), rapper Dr. Dre (1965), and football star Le'Veon Bell (1992) were born

19 — Thomas Edison invented the phonograph (1878), and singer Smokey Robinson (1940), actor Jeff Daniels (1955), and singer Seal (1963) were born

20 — The U.S. Postal Service was established (1792), John Glenn became the first American to orbit Earth (1962), and basketball star Charles Barkley (1963), singer Kurt Cobain (1967), baseball star Justin Verlander (1983), and singer Rihanna (1988) were born

21 — The sewing machine was invented (1842), **NASCAR was incorporated** (1948), DNA was discovered (1953), actor Kelsey Grammer was born (1955), and Malcolm X was assassinated (1965)



22 — President George Washington was born (1732), the Republican Party held its first national meeting (1856), basketball legend Julius "Dr. J" Erving (1950), and actress Drew Barrymore (1975) were born, and the U.S. Olympic hockey team beat the USSR in the "Miracle On Ice" (1980)

23 — Plutonium was first produced (1941), and actress Dakota Fanning was born (1994)

24 — Andrew Johnson became the first U.S. president to be impeached (1868), and entrepreneurs Phil Knight (1938) and Steve Jobs (1955), and boxer Floyd Mayweather (1977) were born

25 — Samuel Colt invented the revolver (1836), the first American aircraft carrier was launched (1933), guitarist George Harrison was born (1943), and **Cassius Clay**

(Muhammad Ali) beat Sonny Liston for the heavyweight boxing championship (1964)

26 — Singers Fats Domino (1928) and Johnny Cash (1932) were born, and RADAR was first demonstrated (1935)

27 — Actress Elizabeth Taylor (1932), football star Tony Gonzalez (1976), and First Daughter Chelsea Clinton (1980) were born

28 — Hockey star Eric Lindros (1973) and singer Jason Aldean (1977) were born



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