COLLABORATION ANALYTICS[©]

Actionable Scientific Assessment of Team
Partnering & Collaboration

A Program of The University Research Institute, Washington, DC



2025 FEDERAL PROJECTS COLLABORATION STUDY

Executive Summary



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Contextual Overview: The Challenge of True Collaboration

We Should Collaborate, But We Are Trained Not To

1.1 The Irony of Collaboration in Project Teams

Team collaboration is widely recognized as the "cornerstone of project success," yet the industry institutionalizes adversarial relationships. Where should we look for improvement? We must get the right people, have the right incentives, and have clear contracts. Does that ensure good collaboration? No. How could it? Collaboration is not "set it and forget it." It is a dynamic process that requires leadership and management. We already expend substantial energy managing money, time, and process. We need to add: team collaboration.

1.2 Is the Talk Working?

Our industry has been discussing team collaboration for 15 years. Is the

talk working? Are our projects now occurring on time and budget? Probably not. Current popular attempts:

- New Project Delivery Strategies (lots to choose from)
- New Ways of Contracting (lots to choose from)
- New Partnering Services (lots to choose from)
- New Owner Advisory Services (lots to choose from)

At the end of the day, the object of all these efforts is the same....improve project outcomes by enhancing team performance. So, how do project managers know what's working and what isn't? It's time to apply behavioral science and data analytics.

TAKE AWAY:

JUST LIKE BUDGETS AND SCHEDULES, TEAM COLLABORATION IS MANAGEABLE. **BUT IT MUST BE MANAGED.**







The Problem: Human Nature in Project Teams

Project Teams Largely Consist of Humans

2.1 The Inherent Complexity of Human Behavior

Project teams contain human beings. Humans wonder, feel, fight, change, socialize, and occasionally think. Humans are unquestionably hard to manage. Why? Because complex emotions, not the intellect, are in charge.

Human judgment is easily pushed to the irrational. Sometimes its emotion – people want to not get frustrated when they manage conflict, but they do anyway. Sometimes it's the situation. Ask someone buying a \$100 lamp if they would drive 15 minutes to a different store to get it at a 50% discount (\$50) – most say yes. Ask someone buying a \$50,000 car if they would drive 15 min-

utes to a different dealership to buy it for \$49,950 - a 0.1% discount and most say no. But in both situations, driving 15 minutes would save you \$50.

The default systems for human thought are automatic, intuitive, and often wrong. They believe what you see is all there is, and they make snap judgements using incomplete data. People often think there are more murders than suicides because they see murder on the news all the time, but there are twice as many suicides. Our judgements appear true but are often wrong because they have biased data. **Put bluntly, human intuition**

TAKE AWAY:

PEOPLE ARE NOT RATIONAL BUT THEY BELIEVE THEY ARE.









is running the show; and it is often wrong. Not only are we blind to what motivates our interactions, but we are blind to our blindness.

2.2 The Impact of Emotion and Bias on Decision Making

Do our biases go away when we are tasked with managing a multi-disciplinary group of professional experts? Of course not. They just get buried by our expertise - now people know how to justify their biased intuitions with skilled arguments. The challenge comes when we try to work with others. If we see ourselves as a thinking, independent acting, rational being who is analyzing the situation appropriately, then we will be perplexed when others don't see things in our way. Aren't they rational? If we use our expertise and experience and they still see things differently it can be confusing and

frustrating. When emotion kicks in, the problem gets even harder to solve.

2.3 Why Human Intuition Often Misses the Mark

We all hope that teams make things more effective, but in fact they often underperform relative to expectation. The reason is that teams are a hotbed of biased thinking and emotions. Thus the critical issue: How do we manage the normal human emotional and intuitive drivers that, on the surface, seem unmanageable?

Words describing how to increase team collaboration are ubiquitous. Everyone knows them. Yet if everyone knows how to increase professional collaboration on project teams, why is it such a struggle? Because it is hard to know what things are actually a problem, and what, specifically, to do when they are.

TAKE AWAY:

PEOPLE MAY NOT BE RATIONAL, BUT THEY ARE OFTEN
PREDICTABLE IF YOU UNDERSTAND THEIR HOPES AND FEARS.







This Year's Study: A Data-Driven Approach to Team Collaboration

2025 Federal Team Collaboration

3.1 Defining the Study's Purpose and Scope

This annual study was designed to inform data driven strategies which will help enhance professional collaboration on Federal Design and Construction Projects. The most effective way to address the dicey,

complicated human emotional condition is to study interpersonal relationships. This means applying behavioral science and data analytics to the task of improving professional performance.

TAKE AWAY:

DATA IS HOW WE SEPARATE WHAT IS TRUE FROM WHAT WE WISH WERE TRUE.







Study Guidance: Expert Insights

These Executives Guided This 2025 Study

What are we trying to learn? How do we intend to learn it?

4.1 Federal Agency Executives

- Michael Carrancho, Deputy Director, Office of Planning Design Construction, Smithsonian Institution
- David W. Triplett, Unit Chief, Facilities Acquisition Unit, FBI
- COL Christopher W. Kiss, PhD,
 Chief, Facilities Enterprise,
 Defense Health Agency,
 Department of Defense
- COL Ricardo J. Rodriguez,
 Commander, US Army Health
 Facility Planning Agency
- Stephanie Hixson, Director, Office of Workplace Solutions, National Institutes of Health

- Julia De Rosi, Deputy Assistant Commissioner, Office of Project Delivery, General Services Administration
- Cory Anderson, Director, Center for Construction Excellence, General Services Administration
- Skip Vaughn, Former Chief Facilities Management Officer, National Institute of Standards and Technology
- Christopher Castle, DDes, VP, MedStar Health System
- Tambour L. Eller, Deputy to Commanding General, Programs, US Army Corps of Engineers
- CAPT Atiim Senthill, Operations Officer, NAVFAC







4.2 Subject Matter Experts

Subject Matter Experts involved:

- Dr. Matthew Cronin, Chief Science Officer, University Research Institute
- Dr. Marissa Shuffler, Chief Analytics Officer, University Research Institute
- Spencer Moore, VP, Chief Facilities
 Officer, MD Anderson Cancer
 Center
- Kelly Miller, Program Manager, U.S.
 Army Corps of Engineers, Retired
- Laura Stagner, FAIA, DBIA, Former Assistant Commissioner for Public Buildings, GSA
- · Dr. Thom Kurmel, DDES, AIA, TDK Consulting

4.3 Professional Association Leaders

Professional Association Leaders involved:

- Adam Bazer, MPD, Senior Director, Knowledge Product Development, ASHE, American Hospital Association
- Lisa Washington, Executive Director / CEO, Design-Build Institute of America
- Michael D. Bellaman, President,
 Associated Builders & Contractors
- Jordan F. Howard, Counsel,
 Federal Construction & Regulatory
 Affairs, Associated General
 Contractors of America
- Ben Brubeck, Former VP, State Affairs, Associated Builders & Contractors





Study Participants: Engaging Federal Agencies

Federal Agencies

5.1 Overview of Participating Federal Agencies

Federal Agencies:

- · SMITHSONIAN
- · FBI
- · DEFENSE HEALTH AGENCY
- NATIONAL INSTITUTES OF HEALTH
- GENERAL SERVICES ADMINISTRATION

- NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
- NATIONAL INSTITUTE OF BUILDING SCIENCES
- · U.S. ARMY CORPS OF ENGINEERS
- · NAVFAC

TAKE AWAY:

WHEN TEAM COLLABORATION *ERODES*, ALL CATEGORIES OF PROJECT RISK *INCREASE*.







Study Execution: Methodological Foundation

The University Research Institute

6.1 University Research Institute's Role in the Study

While team collaboration is easy to praise, it has been, until now, difficult to scientifically measure. Our group at the University Research Institute, working for the past twelve years, utilizes behavioral science and data analytics to identify the dimensions which most accurately and consistently indicate effective partnering.

We leveraged our board of regents, industry experts across a variety of sectors and agencies, and behavioral scientists who study teams and teaming, to develop an instrument that could discern what systematically helps (or hurts) collaboration. We surveyed and analyzed the data for robust patterns.

6.2 Methods

Participants were recruited through leading industry associations, including DBIA, ASHE, COAA, SAME, PMI, ABC, AGC as well as through estab-

TAKE AWAY:

TO UNDERSTAND WHAT IS ACTUALLY HAPPENING,
YOU HAVE TO ASK THE RIGHT QUESTIONS THE RIGHT
WAY, AND TO SEPARATE THE SIGNAL FROM THE NOISE.
LUCKILY, THERE IS A SCIENCE FOR THAT: TEAM SCIENCE.









lished partnerships with federal agencies and private sector stakeholders.

Respondents were asked to reflect on their most positive and most negative collaboration experiences in design and construction projects, rating a set of collaborative factors to determine which most strongly influence team success or dysfunction. They were also given the opportunity to provide additional detail about these experiences—via open-ended survey questions and the option to schedule a brief phone interview—which were subsequently used to identify key themes and best practices.

We received responses from **388 professionals**, including leaders and staff representing a diverse mix of local, state, and federal government agencies.

Role Type	Percent of Respondents
Design, Architecture & Planning	11%
Directors & Executive Leadership	27%
Facilities Management & Engineering	16%
Preconstruction, Development & Delivery Strategy	12%
Project & Construction Management	14%
Technical, Engineering, & Specialist Roles	20%
Total	100%

Organization	Percent of Respondents
ASHE (American Society for Healthcare Engineering)	60%
DBIA (Design-Build Institute of America)	30%
SAME (Society of American Military Engineers)	23%
AGC (Associated General Contractors of America)	16%
ABC (Associated Builders and Contractors)	14%
AIA (American Institute of Architects)	13%
CMAA (Construction Management Association of America)	8%
PMI (Project Management Institute)	7%
ASA (American Subcontractors Association)	2%
COAA (Construction Owners Association of America)	2%





Seeing the Patterns: Conventional Wisdom on Team Collaboration

Conventional Wisdom

7.1 Each of these dimensions was identified by over 80% of study participants as being critical to project success.

On the surface, our results confirm much of the folk wisdom about teams and teaming. These are generally accepted concepts and, therefore, old news. We all know that successful collaboration requires:

- Relevant information needs to be shared in a timely manner
- Key stakeholders should have strong relationships with the project team
- · Rewards need to be aligned with stakeholder priorities
- · Team members should feel able to share their perspectives

· These dimensions are critical:

- Development of shared values and expectations
- Effectiveness of mission critical team engagement
- Continuity of active project team members
- Health of interpersonal relationships
- > Clarity of roles and commitments
- > Density of team communication
- Management Responsiveness and proactivity
- > Integration of new members
- Continuous Evaluation / Feedback / Adjustment







Each of the above dimensions share the following characteristics:

- 1 THEY ARE CONSISTENTLY MEASURABLE
- 2 THEY ARE INTERRELATED
- 3 THEY ARE DYNAMIC
- 4 THEY ARE CONTEXT DEPENDENT
- 5 THEY ARE MANAGEABLE

ISSUE:

KNOWING WHERE IMPROVEMENT IS NEEDED IS *THE BEGINNING, NOT THE END,*OF IMPROVED COLLABORATION.



7.2 The problem is that project teams do not know how to create valid, informative measures. It is not "Just Ask Them."

- One aspect influences another and so what you see may be the symptom and not the cause.
 - People see the best collaborators in the private sector – does that mean federal agencies are not collaborative? No most often the worst collaborators are also in
- the private sector. It means there is a wide range.
- Why a symptom may not be easy to interpret - the old story of good conflict management creating more problems (because it was actually conflict avoidance)







- There is a natural ebb and flow of these processes, one needs to discover where the borders of trouble are.
 - > Two federal agencies once rated each other at a 65/100 at collaboration – is that bad? Hard to tell without knowing what is usually happening
 - In that same survey, one unit was rated at a 50/100. Is that bad? Yes because it is outside the normal range of responses across all other units (61-69)
- All teams are a little different, so one needs to apply the right intervention the right way – it is not one size fits all.
 - Surveying people is the data in data driven partnering. It helps minimize emotions and bias (if collected properly). Used properly, it helps a team develop tar-

- geted prescriptions that guide behavioral improvements.
- > Data is the basis for improving collaboration, but it needs to be processed by the team into behavioral solutions. You could no more improve a team with data alone than you could become stronger by hearing the advice to lift more weight. It is the routine that you create that matters.
- Management is a process, not a one time thing. Management requires managing, not just informing.
 - Problems come up and teams react. Emotions and attributions get made. These are the reasons team collaboration is in flux.
 - The good news is that as teams practice data driven collaboration, they get better using the system, and the problems can be more efficiently and effectively solved.

TAKE AWAY:

IMPROVING COLLABORATION WITH DATA IS A SKILL THAT TEAMS LEARN, **NOT AN ANSWER THEY ARE GIVEN.**







Seeing the Patterns: What **Really Matters for Success**

What Matters



8.1 Identifying the Critical Factors for **Project Success**

When resources (i.e., time and attention) are limited, knowing what factors to fix for the biggest impact is critical.

8.2 The Relationship Between Team Member Relationships and Outcomes

This study found that some issues mattered for team-member relationship building, others mattered for successful project outcomes, and they did not all matter equally.

Sharing information mattered a great deal for project success, but not so much for relationship building...

- · Aligning stakeholder priorities mattered for relationship building but was less important to project success...
- · Building key stakeholder relationships was critical for both relationships and project success...

· Getting everyone to share their perspective was far less important than any of the other factors for either relationships or project success...

Do Relationships Impact Outcomes?

- · Conventional Wisdom: "if you improve team member relationships then project outcomes are better". This oversimplifies the problem of managing collaboration. In fact, the three bullets below were the most important factors for successful collaboration but were only marginally related to perceptions of effective relationships. These were:
 - > issue tracking
 - > managing conflict effectively
 - > leaders who demonstrated collaboration behaviors
- · Further, relationships do matter for successful collaboration, but some are much more important than others such as those between key stakehold-





ers (e.g., clients, end users, C-suite executives) and the project team.

8.3 Federal vs. Private Sector Team Dynamics

Federal vs Private Sector Teams

We also were curious about public/ private sector differences. Conventional wisdom says the private sector is easier to work with than the public sector, but here again, conventional wisdom is inaccurate.

- · 20% of people strongly prefer the private sector, 51% have no preference.
- Private organizations are most likely to be the best collaborators, but the margin was not overwhelming (57% vs. 43% for federal/other organizations).

- Private organizations are also most likely to be the worst collaborators (52%).
- Overall, people significantly prefer working with the type of organization they've had positive collaborations with in the past.

So, what's the difference? The private sector is both better and worse than the Federal, but what really matters are the positive collaboration experiences. If the federal sector wants to improve collaboration and team performance, they should focus more on emulating what is good than preventing what is bad.

Team Leaders

Is it better for leaders to demonstrate collaboration behaviors or team members? Its leaders. What's more, while people remember more bad things, it is the good things that matter most for collaboration.

TAKE AWAY:

COLLABORATION FACTORS ARE **NOT** INDEPENDENT ELEMENTS, **THEY ARE INGREDIENTS IN A COMPLEX MIX.**UNDERSTANDING HOW TO PUT THEM TOGETHER MEANS UNDERSTANDING HOW THEY AFFECT EACH OTHER.







Eight Wastes: Predictable Stumbling Blocks

Teams Waste Resources in Predictable Ways

9.1 Overview of the Eight Wastes in Team Collaboration

There are many studies attempting to describe impediments to success. This research identified eight stumbling blocks.

The question we will ask later: Since we all know the predictable impediments, why haven't we figured a way to consistently defeat them?

1 THINKING JOB PERFORMANCE SKILL MEANS COLLABORATION SKILL

Usually, all team members are competently vetted for their professional credentials and experience. So, how often do supergroups underperform? Almost always. Why? Management just requires different skills.

2 FAILURE TO AGGRESSIVELY MANAGE COLLABORATION

Every team is serious about the management of budgets and schedules. But they often leave team collaboration to chance. Why? Some think it doesn't matter. Some think it will automatically happen. Some think it matters but is unmanageable. It isn't. It just requires different skills.

3 FAILURE TO LEVERAGE RETROSPECTIVE LEARNING

Team members learn from previous projects - such learning will affect how they work on new projects. Few teams spend much time discussing such beliefs. Doing so means that mistakes are not repeated and people learn from others' experience.

4 FAILURE TO MANAGE WANDERING PROJECT REQUIREMENTS

In any large, complex design and construction project, requirements will naturally evolve and successful teams know this is coming. Unsuccessful ones act like this circumstance is a surprise.





5 FAILURE TO MAKE RESOURCE COMMITMENTS CONDITIONAL ON PERFORMANCE

When certain team members fail to perform as agreed, they tend to continue receiving project resources..... more money....more time. There must be clear, reasonable, evenly applied consequences in place. Successful teams don't incentivize bad behavior.

6 FAILURE TO MANAGE TEAM MEMBER DISTRACTIONS

We see two kinds of undesirable distractions: Internal / External. External distractions include your critical team members being assigned, by their companies, to different projects.... occasionally part-time, occasionally full-time. Every individual company working on your team will receive new business opportunities and they all have limited talent. So, moving a good person from your project to another is unfortunate, but not uncommon.

Internal distractions are those administrative activities built into the system that look good on paper but don't accomplish much.

7 FAILURE TO EFFECTIVELY INTEGRATE NEW TEAM MEMBERS

All teams evolve. Many pay some attention to partnering issues at project initiation, but don't establish a consistent process to add new participants. The addition of an unprepared, new team member has predictable, undesirable impacts.

8 FAILURE TO EFFECTIVELY MANAGE UNEXPECTED CIRCUMSTANCES

Things happen on every project that no one saw coming. Warning: some things get thrown into this category that don't belong....like events that should have been foreseen but weren't. That's not what we're discussing here. Things will occur that were truly unpredictable. Some teams utilize elevated collaboration, rewire and move ahead. Others choose to play defense. These teams can be defeated by fairly simple problems.

TAKE AWAY:

IMPROVING COLLABORATION IS ABOUT TRAINING TEAMS TO FIND SPECIFIC SOLUTIONS TO COMMON PROBLEMS.







What Great Owners Do

Some Owners Think All Critical Team Functioning Can Be Delegated. They can't.

10.1 We have found no appropriate substitute for informed owner involvement

1 THEY SHOW UP.

Great owners are visible and present, whether at key project meetings, site walkthroughs, or milestone reviews. Their presence signals to the team that the work matters, encourages accountability, and helps them spot opportunities or risks early. Showing up is not just physical attendance; it is demonstrating genuine interest in progress and challenges.

2 THEY MAKE SURE EVERYONE HAS A ROLE.

From the general contractor to the newest apprentice, great owners ensure every person understands how their contribution connects to the bigger picture. This clarity avoids duplication of effort, reduces confusion, and helps each team member feel valued and accountable for outcomes.

3 THEY STAY ENGAGED THROUGHOUT THE PROJECT.

Strong owners do not disappear after kickoff. They stay informed, ask thoughtful questions, and maintain steady communication channels. Continuous engagement helps avoid surprises, keeps momentum, and allows for faster decision-making when issues arise.

4 THEY AREN'T AFRAID TO ADMIT IF SOMETHING IS NOT WORKING.

When a process, plan, or relationship is not producing results, great owners acknowledge it and work with the team to adjust. This openness builds trust, accelerates problem-solving, and prevents small issues from becoming costly setbacks.





5 THEY DEMONSTRATE WHAT GOOD LEADERSHIP LOOKS LIKE.

Owners set the tone for the entire project. Through respectful communication, clear decision-making, and accountability for their own actions, they model the behaviors they want to see from others, building a culture of professionalism and mutual respect.

6 THEY EMPOWER THEIR PEOPLE.

Rather than micromanaging, great owners trust their teams to do their jobs well, providing resources, authority, and encouragement. This empowerment allows experts to bring their best ideas forward, leading to more efficient, creative, and high-quality outcomes.

7 THEY DON'T IGNORE CONFLICT.

Differences of opinion and competing priorities are inevitable in complex projects. Great owners address tensions early, facilitate open dialogue, and help the team find solutions before conflicts escalate into delays or damaged relationships.

TAKE AWAY:

AS IT TURNS OUT, THE KEYSTONE TO PROJECT TEAM PERFORMANCE IS **EFFECTIVE OWNER INVOLVEMENT.**







Takeaways: Overcoming the Knowing-Doing Gap

This Gap Won't Go Away on Its Own

11.1 Addressing the Disconnect Between Knowledge and Execution

· This Gap Won't Go Away on Its Own

In this paper, we have already asked this question several times, and you are probably tired of hearing it: If everyone already knows how to effectively manage high performing teams...and everyone already knows the typical stumbling blocks.....why doesn't it happen? Why the continued lack of performance? Why the continued unfortunate project outcomes?

No "One Best Way" Exists to Fix Collaboration

Every project is different, so every team is different. In this paper, we are not going to supply another

"how to" collection of predictable paragraphs. The issue of team collaboration must be dealt with very specifically. This means that teams must learn how to collaborate in their own way, but there is a process for doing that. Folk wisdom, while amusing, is limited in application.

Keep in mind that team collaboration is volatile. It comes and goes quickly and often capriciously. Depending on the size and complexity of the project, team health must be scientifically and accurately evaluated on a regular basis by professionals with item response statistical expertise. Sometimes monthly, sometimes quarterly, sometimes semi-annually.

TAKE AWAY:

THE CHALLENGE OF ENHANCING TEAM COLLABORATION HAS TWO COMPELLING COMPONENTS: (1) EFFECTIVELY LISTENING TO TEAM ATTITUDES WHILE FILTERING THE NOISE. (2) THE ABILITY TO RESPOND TO THE DATA AND DECIDE WHEN TO MONITOR FURTHER AND WHEN TO TAKE MANAGEMENT ACTION.







Collaboration Management Must be Consistently Applied

A substantial collection of studies describes how critical the team initiation process is. The thinking is that if you get off on the wrong foot, it's very difficult to correct over time. As a matter of fact, we see that team dysfunction usually increases over the life of the project. There are many examples of teams that got started well but assumed early collaboration would continue. It usually doesn't.

Data Driven Partnering Turns "Gut Feelings" into Actionable Insight

The basic tenants of team partnering are well understood. It's now time to replace intuition with data.... but not just any data. This is not an approach appropriate for survey monkey. We must apply actual behavioral science and data analytics.

Two overall issues are in play: Where is the team performing well and where it isn't. When it is collaborating....how do we make more? When it isn't, how do we correct?

· Collective Leadership Isn't a Buzzword, It's a Practical Advantage

Strong, clear leadership has always been recognized as critical to team performance. Effective teams seem to develop another level of guidance. In our research, it's usually called "Collaborative Analytics Subgroup Leaders".....or CASL Team. It doesn't matter what this group is called. It matters that there is a group, representing all of the critical moving parts, that acts as CASL Team

It's not about titles; it's about creating a core group that brings together all the critical perspectives. This group doesn't just react to issues, they own the success of the project together.

TAKE AWAY:

FIXING PROBLEMS IS AN ONGOING PROCESS, BUT IT IS ONE THAT TEAMS CAN LEARN AND INSTITUTIONALIZE.







Instead of playing the blame game, they focus on solving problems quickly, proactively aligning efforts, and keeping work moving forward.

Responsibility for team success is a shared game.....they spend more time solving problems and less time assigning blame.

Project Manager must become facilitator: the Project Manager must evolve from taskmaster to team facilitator, someone who ensures that the right people are talking, collaborating, and making decisions together.

Owners Must Embrace Their Role in Driving Collaboration

The owner's role in the process of shaping the built environment has been a matter of evolving conjecture for years. Conventional wisdom tells us the owner's role is to define the project, provide the funds, and

get out of the way. That is no longer the case. As it turns out, there are several moving parts that are best driven by the owner's team.

We see that "Collaboration Analytics" must be driven by the Owner. It's critical to effective team performance but it's not the only issue with which owners must deal.

Generalities Can't Solve Specific Problems

We can all agree on the problem: Teams traditionally under-deliver. This reality is magnificently taxing on our ability to accomplish difficult and important missions. Success seems to depend on our ability to manage normal human emotional drivers which seem, on the surface, unmanageable. These drivers, while complex, can be documented and understood.

TAKE AWAY:

TEAM LEARNING DOESN'T HAPPEN WITHOUT *VIGOROUS*SUPPORT AND GUIDANCE FROM LEADERSHIP.







11.2 Utilizing Behavioral Science, This is how Collaboration Analytics Looks

Collaboration Program EXECUTIVE SUMMARY To princt 1. Mod project data factors are wishinky stable and emote in the green. 2. Profit feeling and a distribute and burned out a emote provide feeling and a distribute and burned out a emote provide feeling feeling

Monthly analysis also includes individual team comments and data trend calculations.

EXECUTIVE SUMMARY VIEW

Project Managers and team leaders are busy. They need an instrument that provides a quick look at collaboration issues in three categories:

- **1 GOOD:** Where is team collaboration effectively working this period?
- **2 THINGS TO WATCH:** What general concerns have surfaced that are worth monitoring?
- 3 THINGS TO FIX: What collaboration issues have risen to the point of requiring management action?

SUBGROUP COLLABORATION VIEW

How are the critical team subgroups collaborating? Are the architects working effectively with the engineers, the general contractor, the ownership group? This chart can be customized to describe collaboration between any list of appropriate subgroups.

SUBGROUP COLLABORATION ISSUES VIEW

When subgroups struggle to deal with each other, what issues are causing the problem? Once again, the idea is





to identify concerns before they impact schedules and budgets.

INDIVIDUAL COLLABORATION VIEW

This view utilizes questions generated by behavioral science that tell team leaders about how individual team members perceive:

- 1 ISSUES involving Safety, Quality, Schedule, and their balance
- **2 PROJECT STATE:** communication, organization, mistakes, innovation, etc.
- **3** HOW PEOPLE FEEL: Engaged, Frustrated, Burned out, Supported, etc.
- **4 TEAM ENVIRONMENT:** Is it respectful, adaptable, open to ideas, stressful?

INDIVIDUAL TEAM MEMBER COMMENTS

There are many interesting categories. Here are some examples:

- "What is one problem, that if fixed, would make your job easier?
- "Do you want to give a shout out to anyone on the project for helping you through a tough problem?"
- "Do you have any small wins you'd like to share with the project team or senior leaders?"
- · "Describe what you see working well."
- "Describe what you see working poorly."

COLLABORATION PROGRAM DATA TRENDS

As mentioned earlier, it's a questionable practice to take management action based on any small data set. Trends are way more instructive. In each period, it's critical to calculate and display team collaboration trends.

TAKE AWAY:

IT'S USUALLY A BAD IDEA TO TAKE
MANAGEMENT ACTION BASED ON A FEW DATA
POINTS. TRENDS ARE MUCH MORE RELIABLE.







Creating Lasting Improvement

More Words & Generalizations Won't Solve This Problem

12.1 The Need for Data-Driven Solutions in Collaboration Management

STEP 1 WE MUST LEARN FROM EACH OTHER.

Since every project has an independent mission and every team has its own personality, one approach does not fit all. Therefore, we must share and collect scientifically generated collaboration and partnering data.

STEP 2 WE MUST LEARN FROM OTHER INDUSTRIES.

There are many other industries where teamwork by experts is critical for success.....Surgery / Airline Cockpits / NASA / US Military Operations / etc. Each has developed strategies and processes for managing collaboration. We must capture leading practices from each, document and integrate them into our design and construction world. Learning from other industries is not a new idea and, when properly done, has a rich history of success.

STEP 3 WE MUST LEARN HOW TO RESPOND

Once armed with scientifically generated data (not Survey Monkey), it takes professionals with item response statistical expertise to design and interpret good surveys. Sometimes, the correct approach is to do nothing....watch as conditions develop. Sometimes we should take action, but it is usually a bad idea to act on a few data points. As a rule, we should act on data trends. Individual events come and go quickly.....trends don't. Lesson: calculate the trends and pay attention.

STEP 4 WE MUST DEVELOP A TEAM COLLABORATION REPOSITORY

Develop a repository of "Lessons Learned" for specific types of projects and the teams assigned to their execution. General talk and distributing platitudes is useless.





STEP 5 WE MUST DEVELOP A DATA-BASED HOTLINE

Roger Federer, over his 25 year tennis career won 80% of his matches..... but only 54% of his points. What does that mean? Answer: All points don't have equal impact. And the same is true for management decisions. Some are simply more important than others. What happens when a PM is faced

with making a difficult call? There needs to be a data base to call upon... and not just any collection of general management wisdom.....the world is full of charming but useless platitudes. We need a specific collection of team management imperatives from the design / construction industry. And it needs to be tuned to real world conditions that must be dealt with in real time with real money.

TAKE AWAY:

THERE'S A DIFFERENCE BETWEEN INFORMATION
SHARING SOFTWARE AND A TEAM COLLABORATION
PROGRAM. AT THE END OF THE DAY, IT'S IMPORTANT
THAT EACH TEAM MEMBER NOT JUST COMMUNICATE,
BUT FEEL OWNERSHIP OF THE OUTCOME.







How to Take Action

Genuine Collaboration Impact

13.1 Create a Project Team Collaboration Program

Our industry is still struggling with team collaboration which means we need something more impactful than the current batch of trends: New Project Delivery Strategies / New Ways of Contracting / New Partnering Approaches / New Owner Advisory Services. None of these things are bad, they just aren't impacting outcomes as intended. We need an effort that actually enhances team behavior, on a daily basis. That means the creation of a "Project Team Collaboration Program."

The critical elements required for such a program:

- 1 It must be owner driven...
- 2 It must have individual Project Manager commitment...
- 3 It must include team training and commitment...
- 4 There must be a CASL team (Collaboration Analytics Sub-group Leaders)

- **5** There must be an efficient process for listening to team members. Characteristics:
 - > driven by behavioral science
 - driven by data analytics (only way to distinguish data from noise)
 - > easy, efficient (special app)
- **6** Establishment of regular system for CASL team to digest and act on collaboration data
- **7** Establish system to track the effectiveness of management action. What has worked? What has not?

13.2 How to participate in this research:

1 SUGGEST A PILOT PROJECT

These kinds of advancements must be proven in the field....real projects, real time, real money, difficult missions. Our research team has the bandwidth to execute about 10 pilots at a time.





If you have a project that may be appropriate, please let us know and we'll discuss. It may be an opportunity to improve team performance while advancing the research.

2 GET INVOLVED IN NEW APP DEVELOPMENT

For this approach to work, we must have a way to effectively and efficiently listen to critical team members. For the past 10 years, we have used a website. It is now time to develop an app. This will serve two powerful endeavors:

 An app will facilitate a more accurate way for us to view team collaboration. An app will enhance our ability to gather collaboration data from all pilot projects. We can then compare, analyze trends, and develop leading practices. The idea is to create the largest and most valuable repository of team collaboration data.

3 ATTEND AND PARTICIPATE IN ANNUAL LEARNING EVENTS

All pilot project participants will gather to share insights, lessons learned, and any accidental loss of sanity. We will also include leaders from other industries dealing with the management of team collaboration. Naturally all findings will be documented and observers will be welcome.







That's enough preaching for now. The complaint window is officially open. If you care to propose a pilot project, please do so. We're trying to get better.

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Chair



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