

Overcoming Generational Stereotypes to Affect Change



WHY ME?

- ▣ 20 YEARS – Information Technology Services
- ▣ DevOps Engineer–*Software Development Lifecycle*
- ▣ SaaS Design ▣ API's
- ▣ Cloud Solutions ▣ RFID

- ▣ **CONSTRUCTION IT**
 - IT Director
 - Safety Committee Member
 - Director of Media - JBKnowledge

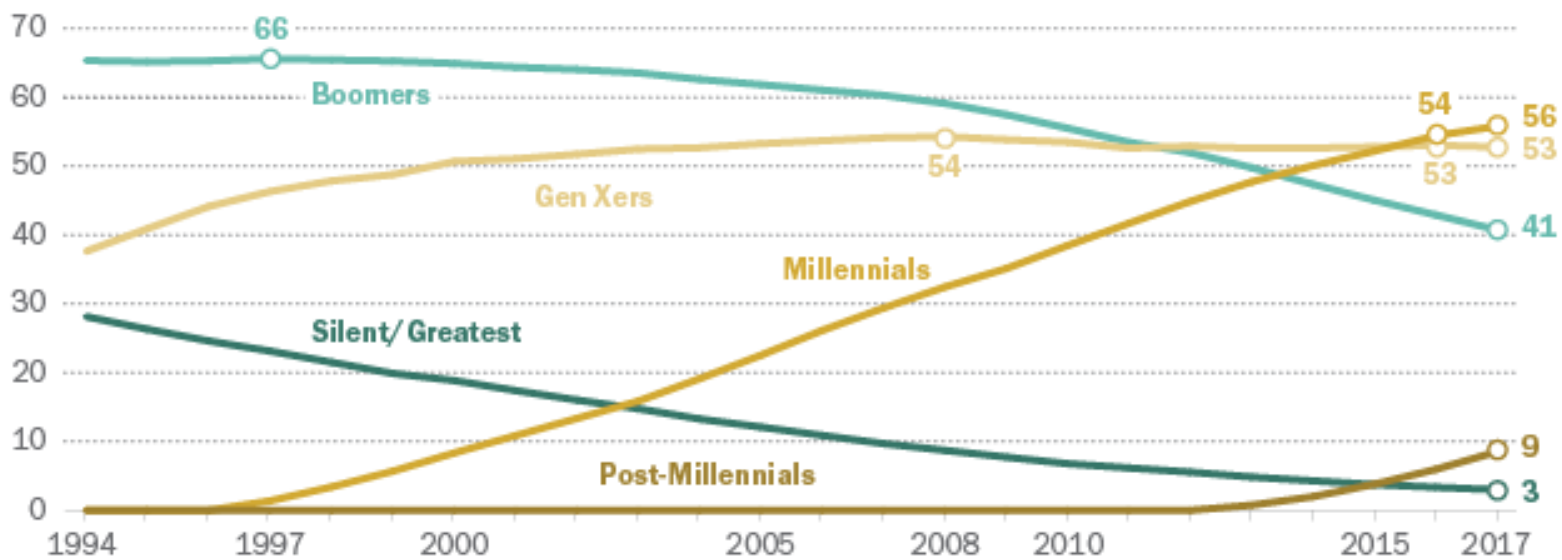
- ▣ Hospitality, Ski Resorts, & Health Care
- ▣ Skier & IRONMAN enthusiast



10,000 Baby Boomers Retire Everyday

Millennials became the largest generation in the labor force in 2016

U.S. labor force, in millions



Note: Labor force includes those ages 16 and older who are working or looking for work. Annual averages shown.
Source: Pew Research Center analysis of monthly 1994-2017 Current Population Survey (IPUMS).

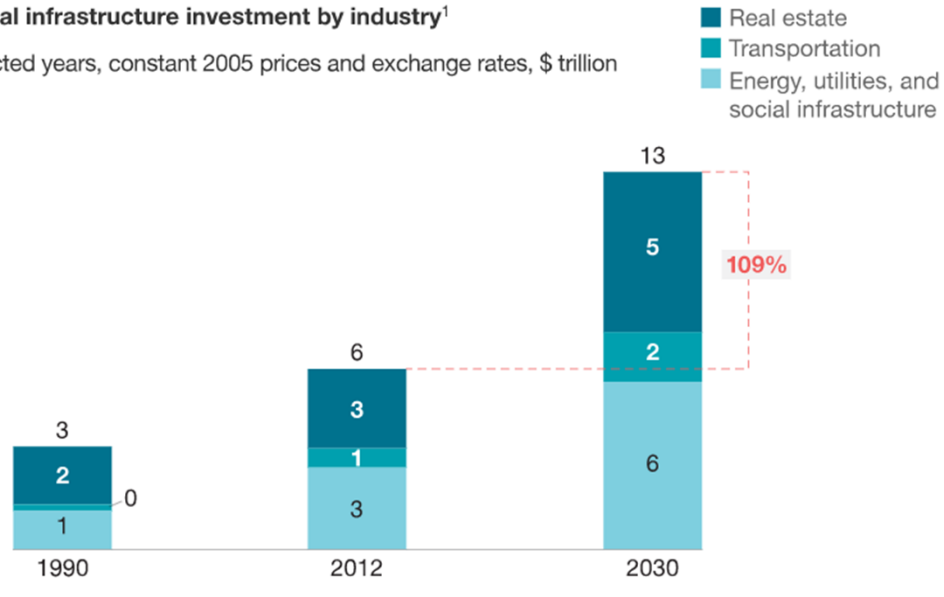
PEW RESEARCH CENTER

The industry is broken

Infrastructure investment will double in the next 15 years.

Global infrastructure investment by industry¹

Selected years, constant 2005 prices and exchange rates, \$ trillion



Megaprojects' share in the future²

12% by number of projects
77% by project value

¹Forecast assumes price of capital goods increases at same rate as other goods and assumes no change in inventory.

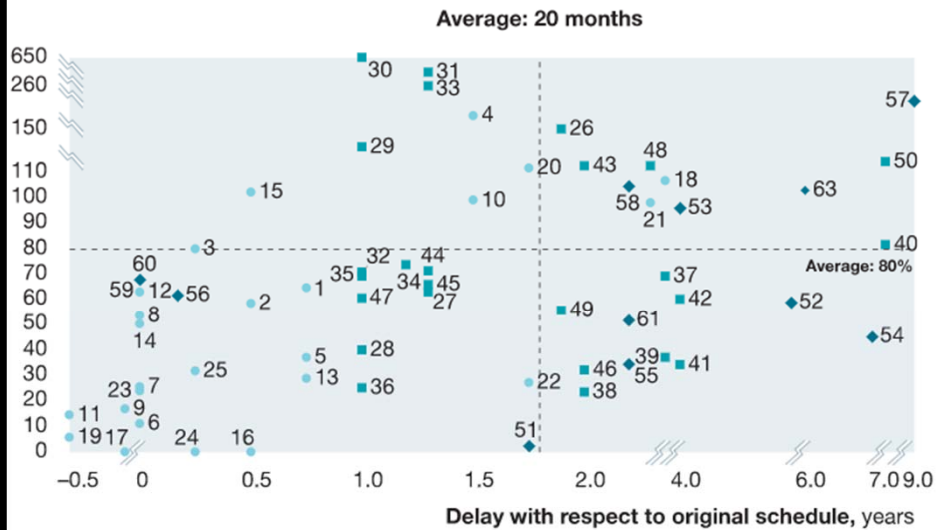
²Project award date 2015 and beyond.

McKinsey&Company

Ninety-eight percent of megaprojects face cost overruns or delays.

Capital-expenditure overrun
(% of original quoted capital expenditure)

● Mining ■ Oil and gas ◆ Infrastructure



- 98% of projects incur cost overruns or delays.
- The average cost increase is 80% of original value.
- The average slippage is 20 months behind original schedule.

Source: Companies' public annual reports; IHS Herold Global Projects Database, November 19, 2013; press releases

McKinsey&Company

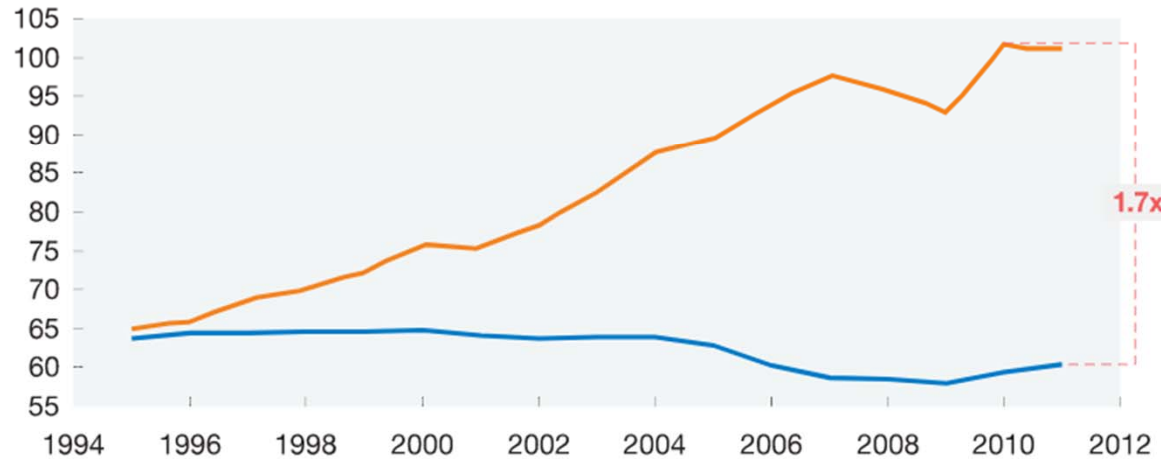
Productivity in manufacturing has nearly doubled, whereas in construction it has remained flat.

Overview of productivity improvement over time

Productivity (value added per worker), real, \$ 2005

— Manufacturing
— Construction

\$ thousand per worker



Source: Expert interviews; IHS Global Insight (Belgium, France, Germany, Italy, Spain, United Kingdom, United States); World Input-Output Database

McKinsey&Company

Who?

"The Now Generation has become the Me Generation,"

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

Boomers

**New York Times, October 17, 1976:
"'76 Politics Fail to Disturb Campus
Calm and Cynicism."**

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

**There they are, those preening narcissists
who have to document every banal
moment with their cutting-edge
communications technology.**

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

Gen X

Newsweek, December 30, 1985: "The Video Generation."

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

I see no hope for the future of our people if they are dependent on the frivolous youth of today, for certainly all youth are reckless beyond words. When I was a boy, we were taught to be discrete and respectful of elders, but the present youth are exceedingly wise and impatient of restraint

—Hesoid, 700 BC

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3020091/>

“The ME ME ME GENERATION,”

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

Millennials: The Me Me Me Generation

Why millennials will save us all

By Joel Stein Monday, May 20, 2013

Time Magazine

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

mil·len·nial
/mi'lenēəl/

noun

plural noun: millennials; plural noun: Millennials
a person reaching young adulthood in the early
21st century.

Millennials: Born 1981-1996 (22-37 years old)

**Millennials grew up in an electronics-filled
and increasingly online and socially-
networked world**

**They are the generation that has received
the most marketing attention**

The most ethnically diverse generation, Millennials tend to be tolerant of difference

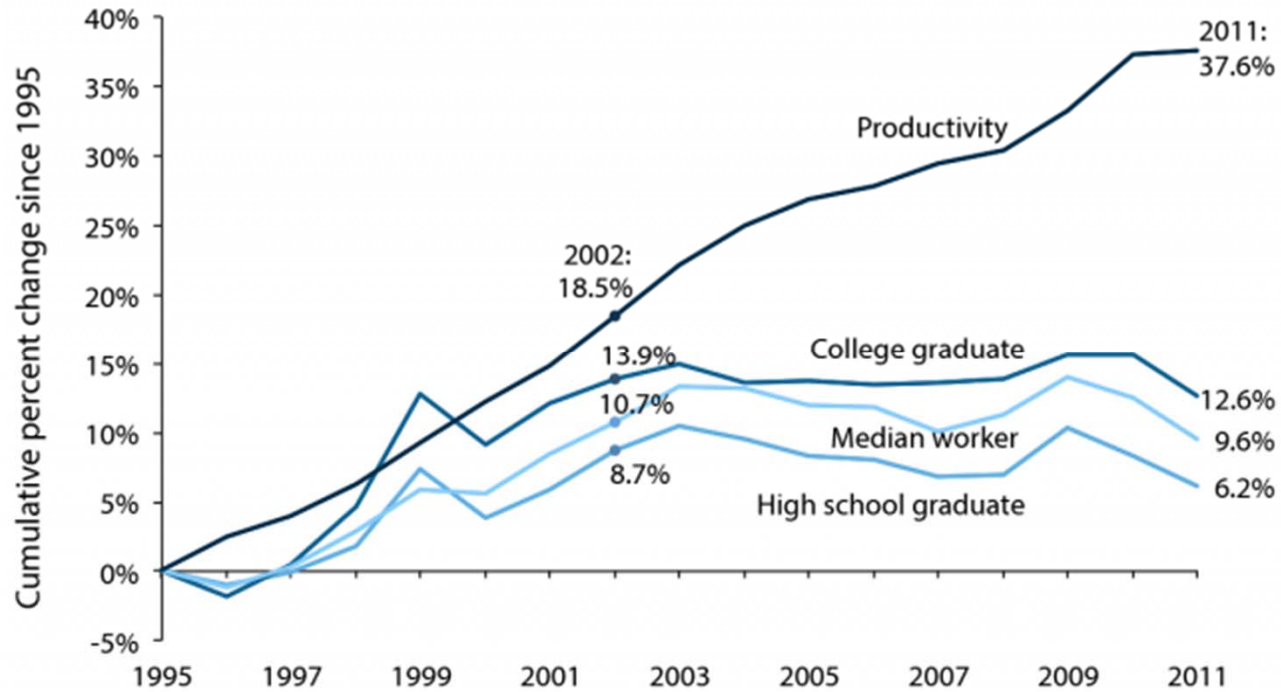
Having been raised under the mantra "follow your dreams" and being told they were special; they tend to be confident. While largely a positive trait, the Millennial generation's confidence has been argued to spill over into the realms of entitlement and narcissism.

Young people are narcissist they get over themselves as they get older.

First, we show that when new data on narcissism are folded into preexisting meta-analytic data, there is no increase in narcissism in college students over the last few decades. Second, we show, in contrast, that age changes in narcissism are both replicable and comparatively large in comparison to generational changes in narcissism.

<https://www.theatlantic.com/national/archive/2013/05/me-generation-time/315151/>

Cumulative change in total economy productivity and real hourly compensation of selected groups of workers, 1995–2011

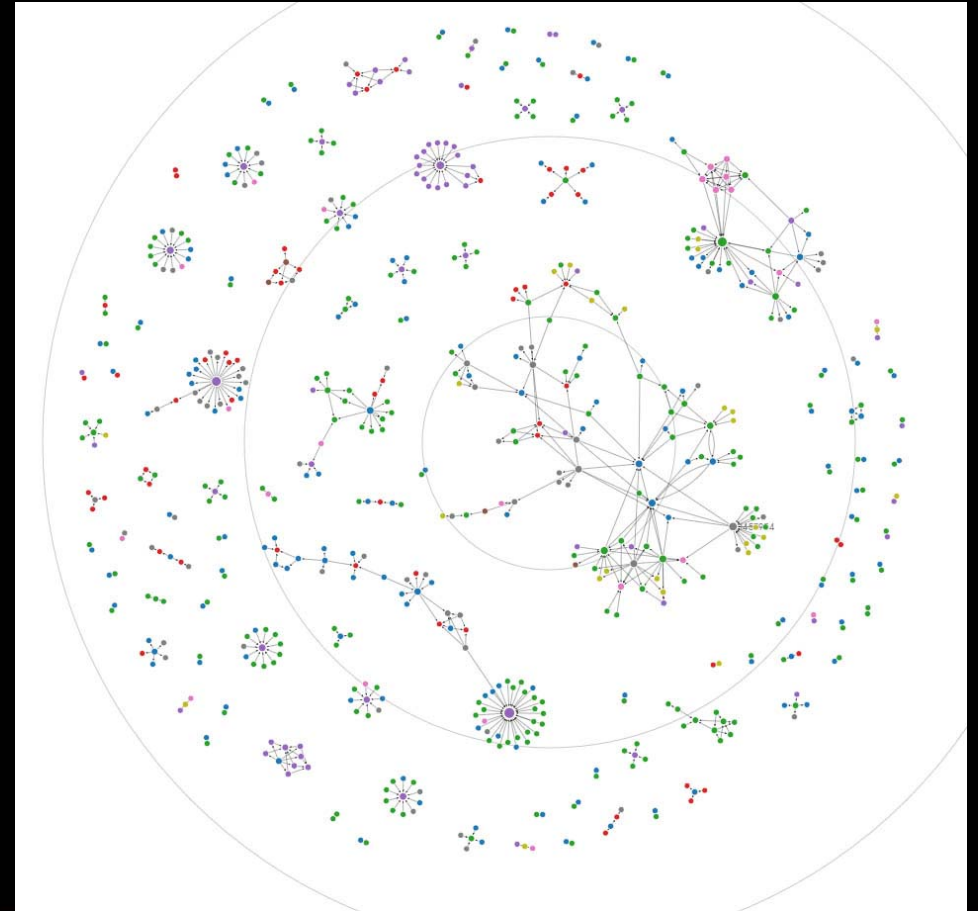
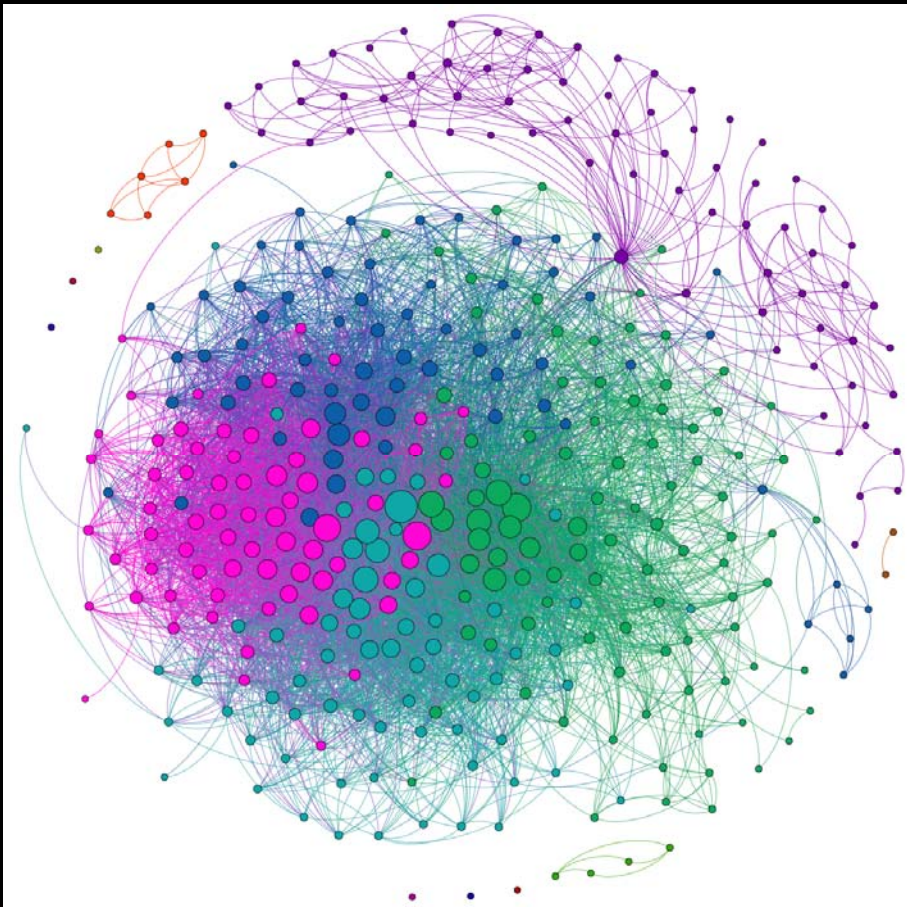


Source: Authors' analysis of unpublished Total Economy Productivity data from the Bureau of Labor Statistics Labor Productivity and Costs program, Bureau of Economic Analysis National Income and Product Accounts data, and Current Population Survey Outgoing Rotation Group microdata

Economic Policy Institute 

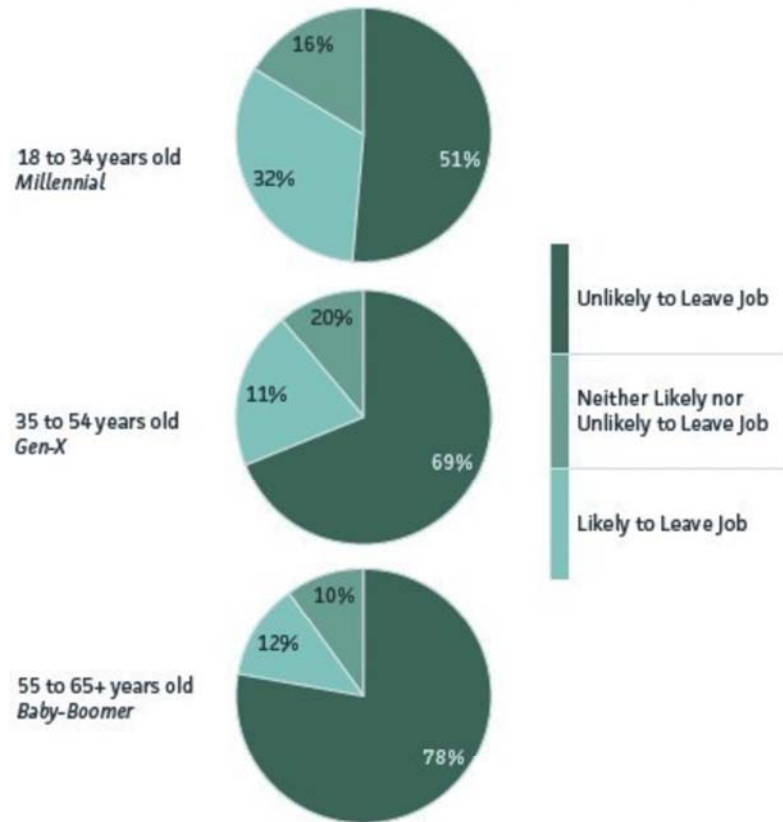
Millennial:
“It’s a mindset, not an age”

Project Virga – Data Visualization



They want to change the world....

Likelihood of leaving current job within the next 6 months.



Source: Clutch 2016; N= 1,000 full-time employees

How do we
fix it?

Leadership



Astro Teller – CEO of X

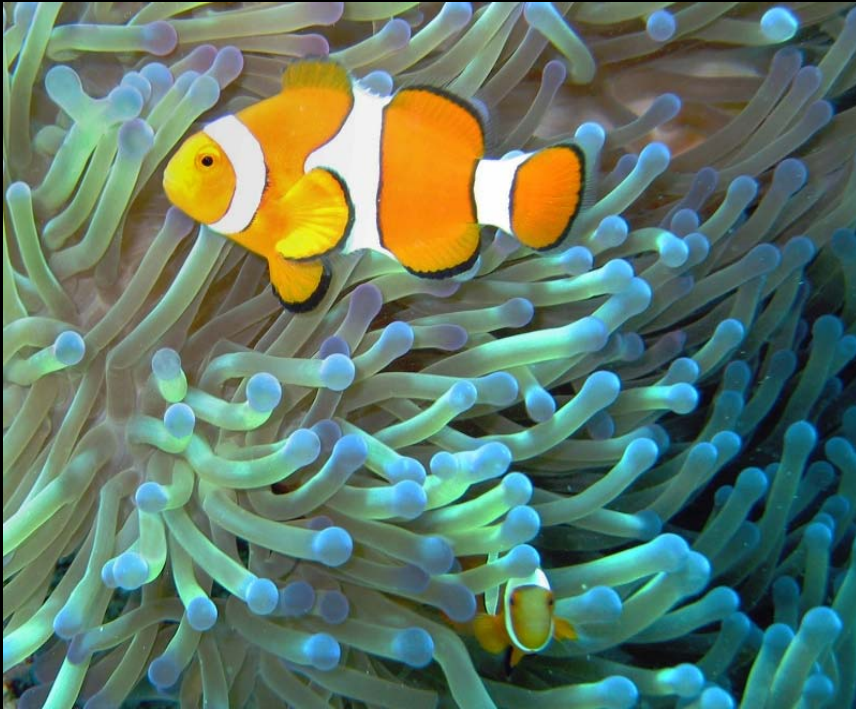


Back to the Basics

Barton Malow Project Director Jason McFadden



Symbiotic Mentorships



Listen, Learn, Teach

- **Prepare**
- **Pilot Programs**
- **Not too long, not too short Just right**
- **Choose Wisely**

Walker Lockard (Polk Mechanical Company. DFW, TX)

- Document Control Standards
 - Rallied stakeholders around standardization
 - Defined standards for existing infrastructure
 - Developed process & workflow with simple software stack
 - Continued training & support
- Digital Document Distribution (DDD)
 - Built & maintained lightweight dashboards for iPads
 - Trained & supported field personnel on iPads and Bluebeam
- VDC/BIM
 - Facilitating in-person, on-site feedback for coordinated shop drawings
 - Developed QR-code scanning web app for tracking installation progress on work packages (MVP only)
- Current Pilots/Research
 - Scalable DDD software
 - 360° photography
 - Model “un-siloing” (visual and information)



James Hillegas (Shook Construction Project Engineer)

- Drone Implementation
 - Currently evaluating insurance to use drones for material and site documentation
 - First Pilot
- VDC/BIM
 - Pushing models into AR for QA/QC
 - Pushing models for formwork optimization (PoC)



Mikki Paradis (PDI Drywall Raleigh, NC)

- Internship in College with Drywall Company
 - Not allowed to learn the trade
 - Traditional Gender Role
- Started PDI Drywall
 - Graduated and started drywall company
 - Hired Sub's that would teach her the trade
 - Failed during the 2008 Recession
- Consulting
 - Fell back on knowledge of technology to recover
 - Consulted with her rivals on technology adoption
- Relunched PDI Drywall
 - Successful and growing
 - Innovative approach to materials and ecofriendly
 - Unique Company Values
- Chicks in Construction



2019 **BICSI FALL**
Conference & Exhibition



Epic Failure



Great Success



**The only thing holding you back is
DECIDING to try!**

Q & A

ADDITIONAL RESOURCES

IronmanOfIT.com



AEC NEXT - Modern IT Innovations

Learn about some of the innovations allowing Construction Companies to scale with the growing demands and maintain business agility in the changing technology landscape.

[DOWNLOAD](#)



Webinar - The Rising Role of Construction Technologist

The "Ironman of IT" Jeff Sample hosts Travis Voss, Construction Technologist and Director of Innovation at Mechanical, Inc. in an engaging discussion on the rising role of the construction technologist and their role in your ConTech success.

[WATCH](#)

Upcoming speaking events:

June 2 - 6: CFMA

June 19: JBKnowledge ConTech Roadshow

August 6 - 9: AGC IT Forum

August 21: JBKnowledge ConTech Roadshow

August 26 - 28: XCON Bluebeam Extreme

October 2 - 5: Mechanical Contractor's Association of Canada

October 16: JBKnowledge ConTech Roadshow

October 24 - 25: CFMA Ohio Valley

November 18 - 22: Autodesk University

December 10: JBKnowledge ConTech Roadshow

THANK YOU