Harnessing AI in Public Procurement: Practical Applications and Governance

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About the Center for Procurement Excellence (CPE)



WHAT IS CPE?

The Center for Procurement Excellence (CPE) is a non-profit member based organization focused on the support, education and certification of optimized solicitation practices that emphasize speed, minimizing protests and attracting high performing proponents. We provide training and certification for procurement professionals, RFP templates and standards, and a venue for procurement professionals to network and advance procedures, processes, and systems.

CPE is also active in engaging tier-1 universities throughout the US to provide research, educational and training opportunities while supporting further advancement of the profession and solicitation methodology, research, and practice.

Free Resources from CPE



RFP Doctor Free Sign-up



FREE Online Course! 10 PDH

2025 x 3 times (Jan, May, Aug)





Better RFPs = Better Projects

- Session #1 = Organizing a High-Performing RFP
- Session #2 = Effective Statements of Work (SOWs)
- Session #3 = Evaluation Best Practices & Vendor Debriefings
- Session #4 = RFP Administration

NASPO's Procurement U

- Log on to the Procurement U Learning Management System (LMS) to register, access the course and materials.
 www.naspo.org/procurement-u/
 - or Email Amy: amy@center4procurement.org
- Open to all (even non-members of NASPO)



Free Resources from CPE

NEWer Courses by CPE + NASPO

- The 1, 2, 3's of a Great Scoring Matrix (2025x2 = Feb, Oct)
 - -Session #1: Creating an Evaluation Matrix [90min]
 - -Session #2: Complexities of Real-World Scenarios [90min]



- Deep Dive on Effective Evaluations (2025 x2 = Mar, Oct)
 - -Session #1: Planning Your Evaluation Strategy [90min]
 - -Session #2: Training Your Evaluators [90min]
 - -Session #3: Strategies for the Negotiation Phase [90min]



What is Trust?



What is Trust?

How do you decide who/what you can trust?



Quick Stats on Trust – is it up or down? (Gallup, Pew, Edelman)

• 2024/2025

- Feel "they" lie to you (Global):
 - Government Leaders 58% in '21.... 69% in '25 (up 11%)
 - Business Leaders 56% in '21.... 68% in '25 (up 12%)
 - Only 48% globally trust their employer
 - Journalist/News 59% in '21.... 70% in '25 (up 11%)
- Trust in the US:
 - US trust in Federal Gov 22% trust (60% in 2001, 39% in 1980, 77% in 1965)
 - US 86% trust small business, 29% trust large corporations, 53% trust schools K- College
 - Only 31% of US trusts media (even fair amount of confidence), 33% not very much, 36% No trust at all
 in media
 - 34% of US agree that "most people can be trusted" (under 30y/o 26%)
 - 44% in US say most of neighbors can be trusted (52% in 2015)
 - Trust in medical profession in US 72% in 2020 and down to 40% 2024
- 36% in feel next generation will be better off (20% in developed countries)
- 60% feel "system" if failing them and only benefits a few
 - 61% have a high or moderate grievance to their government/business (78% in US)





















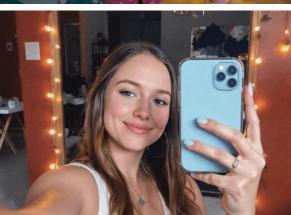




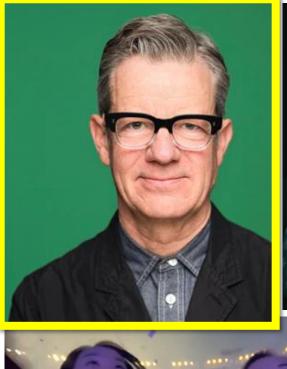






















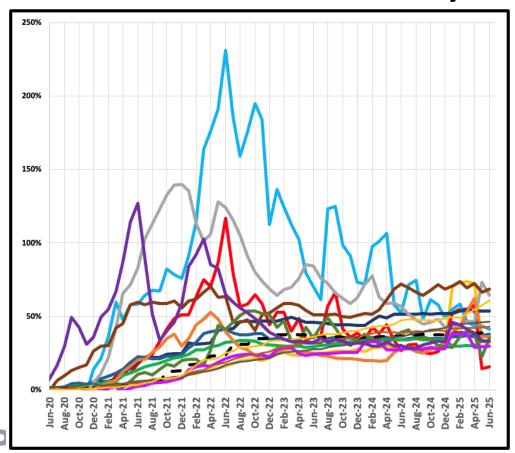
What is Trust?

How do you decided who/what you can trust?

What is Trust in Procurement?



Material Prices & Uncertainty BLS

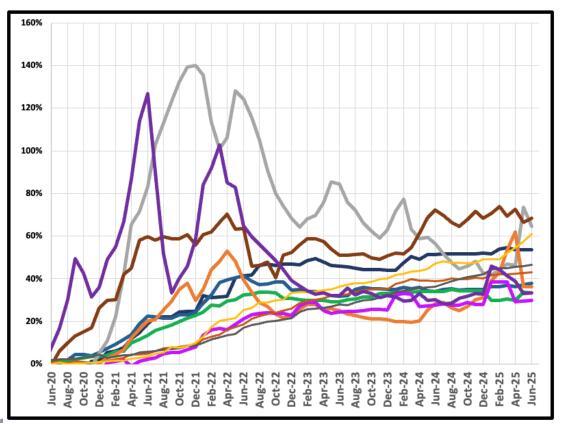


% change from Jun 2020 to Jun 2025:

Copper & Brass Mill Shapes	67%
Steel Mill Products	73%
Gypsum products	54%
Diesel Fuel	43%
Bid Price	39%
Aluminum Mill Shapes	36%
Deep Sea Transportation of Freight	22%
Plastic Construction Products	34%
Lumber and Plywood	33%
Asphalt Paving & Roofing Materials	29%
Switchgear, Switchboard, Industrial Controls Equipment	58%
Cement & Concrete Product Manufacturing	43%
Construction Sand, Gravel, and Crushed Stone	46%
Electric Power	33%
Gasoline	14%

Average of all items above:

Material Prices & Uncertainty BLS



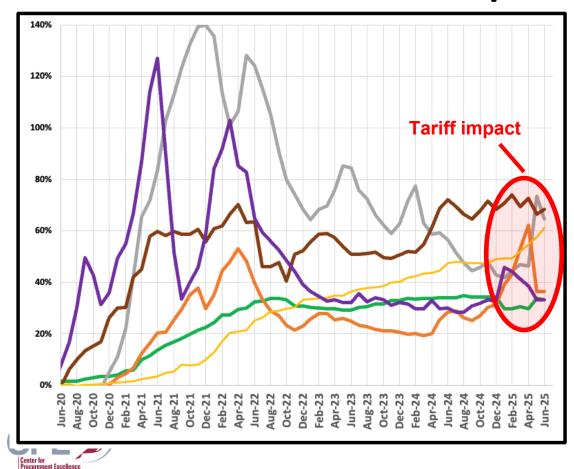
% change
from Jun 2020
to Jun 2025:

copper & brass with Shapes	07/
Steel Mill Products	739
Gypsum products	549
Aluminum Mill Shapes	369
Plastic Construction Products	349
Lumber and Plywood	339
Asphalt Paving & Roofing Materials	299
Switchgear, Switchboard, Industrial Controls Equipment	589
Cement & Concrete Product Manufacturing	439
Construction Sand, Gravel, and Crushed Stone	469

Conner & Brass Mill Shanes

Average of all items above: 47.39

Material Prices & Uncertainty BLS



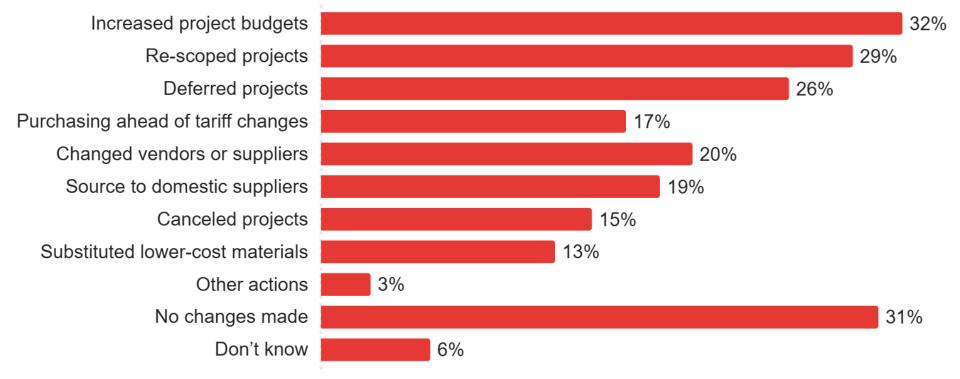
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Lumber and Plywood	33%

Average of all items above:

% change

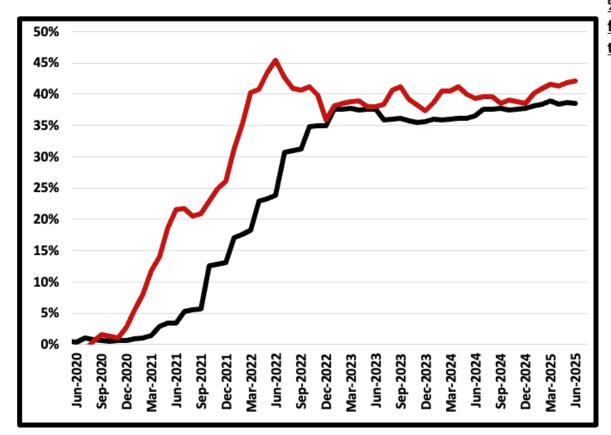
50.1%

Actions taken in the <u>last 6 months</u> due to tariffs or trade changes





Economic Uncertainty?



% Change from Jun 2020 to Jun 2025

> 41.8% Inputs PPI (goods) 38.7% Bids

US Government Cuts Force A Third of CPI Data to Be Based on Estimates



JP Alegre

Tuesday, July 29, 2025, 12:19:00 PM







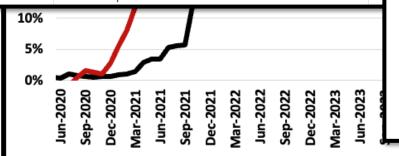


The Bureau of Labor Statistics now estimates about one-third of the price data it uses to calculate the Consumer Price Index, triple the normal rate, as staffing shortages from Trump administration budget cuts strain the agency.

The increased reliance on estimated prices has raised concerns among economists about the qual nation's key inflation measure, which influences Federal Reserve policy and Social Security payments.



This is pretty wild. About 1/3 of CPI inputs are no longer measured in the real world (because of "BLS staff shortages") but are modeled by their historical correlation to other inputs.



% Change from Jun 2020 to Jun 2025

41.8% Inputs PPI (goods)

38.7% Bids

🔝 > News > Global News Select > U.S. Inflation Data Lean Further on Estimates Than Previously Known

U.S. Inflation Data Lean Further on Estimates Than Previously Known



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Provided by Dow Jones 9 Jul 30, 2025, 10:04:00 AM

By Matt Grossman

Official government inflation reports in recent months have involved more guesswork than previously known.

Workforce Shortages

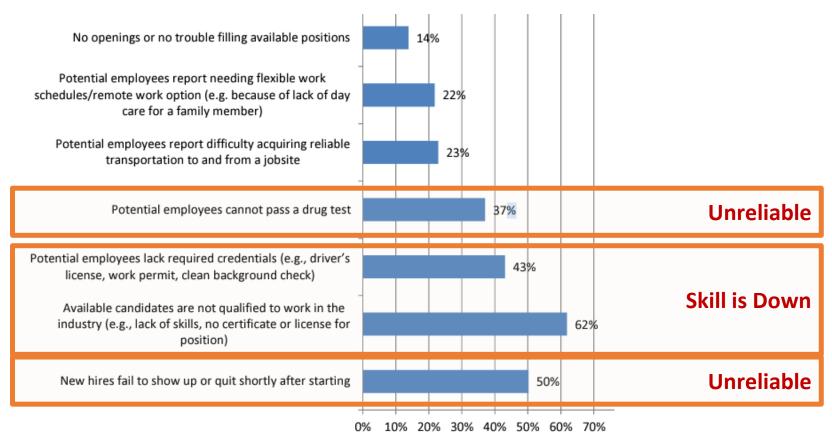
60-80% of orgs struggling to fill positions

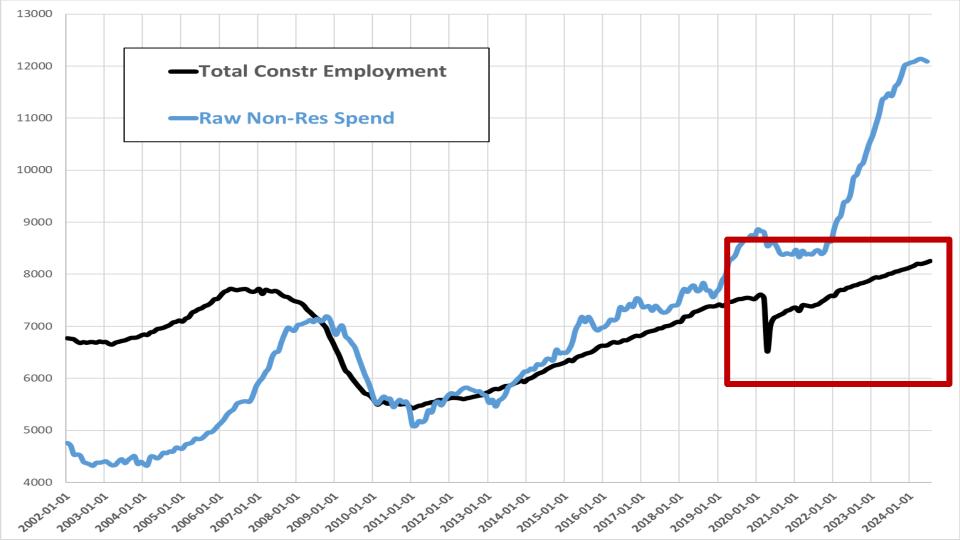
88% feel will be as hard or harder to find skilled people

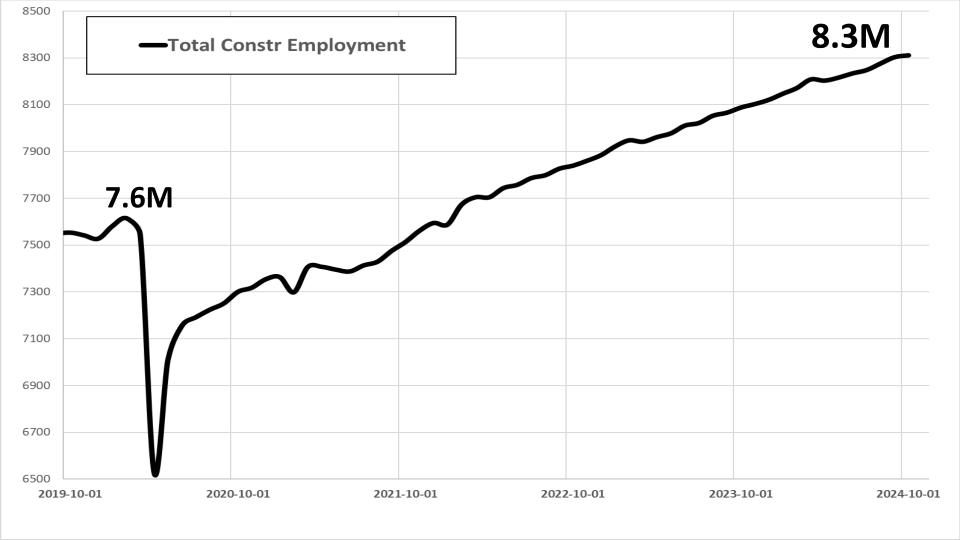
 Mental health and productivity are challenges with high levels of hiring, shortages, and change (retirement, etc.)

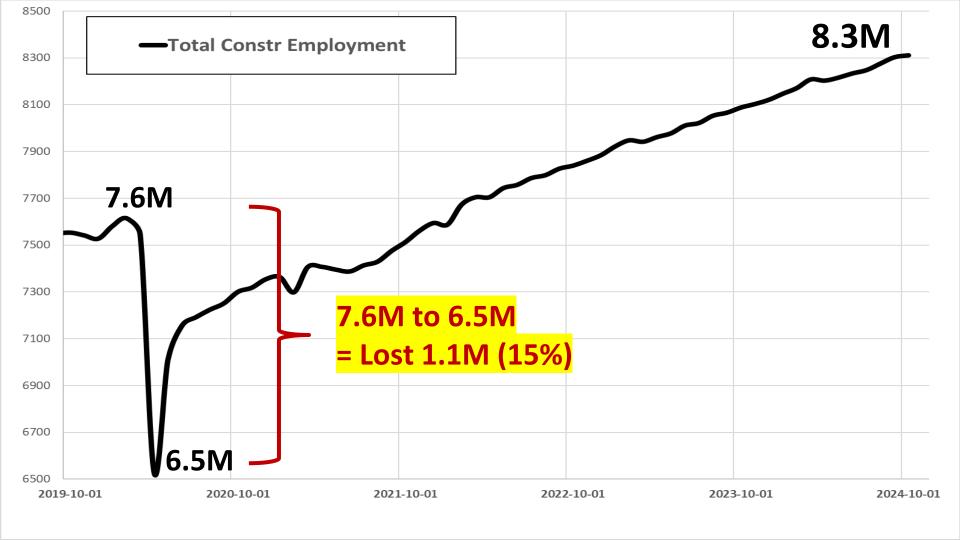


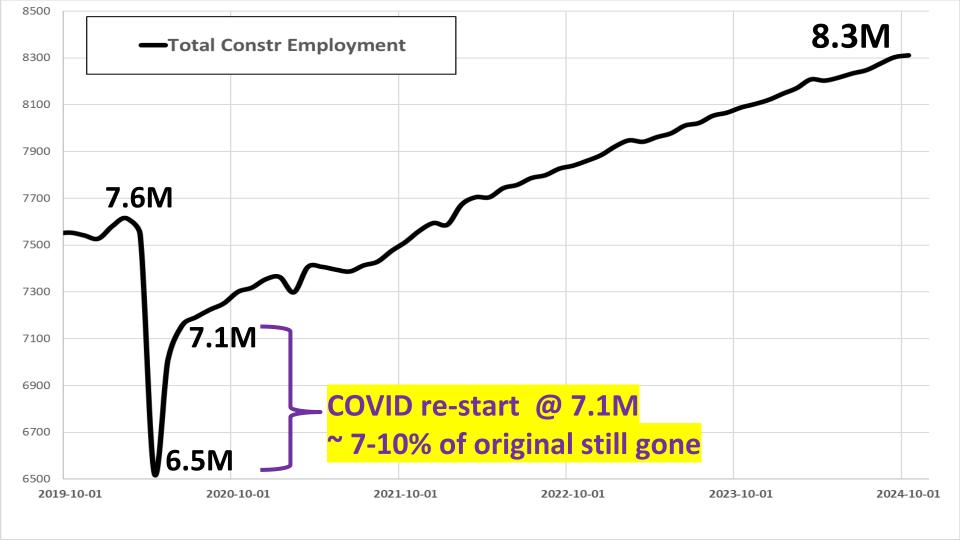
If you are having trouble filling positions, what are the reason(s)?

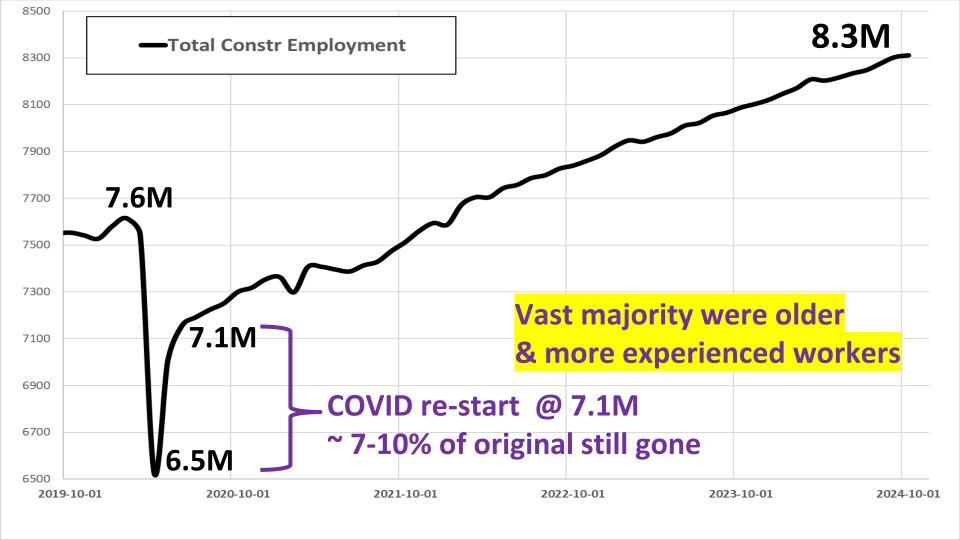


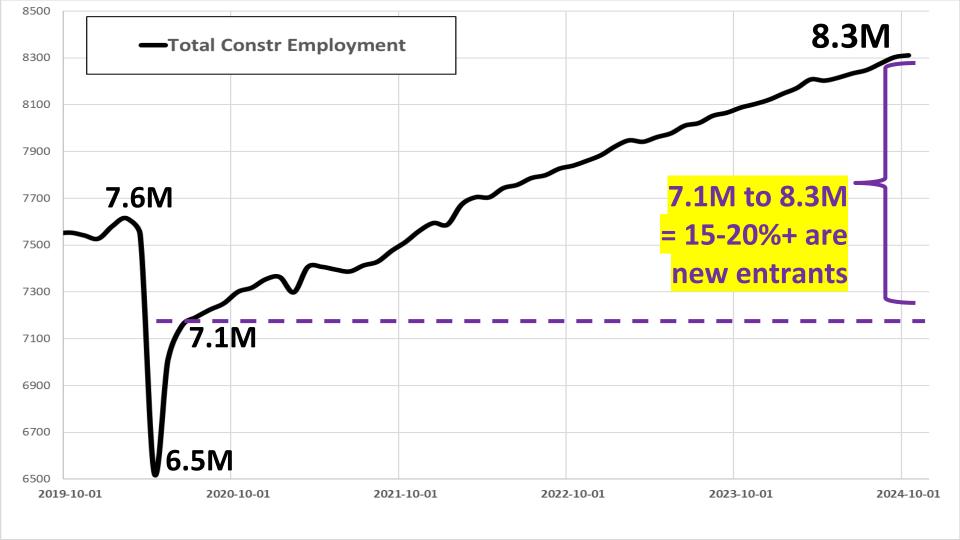


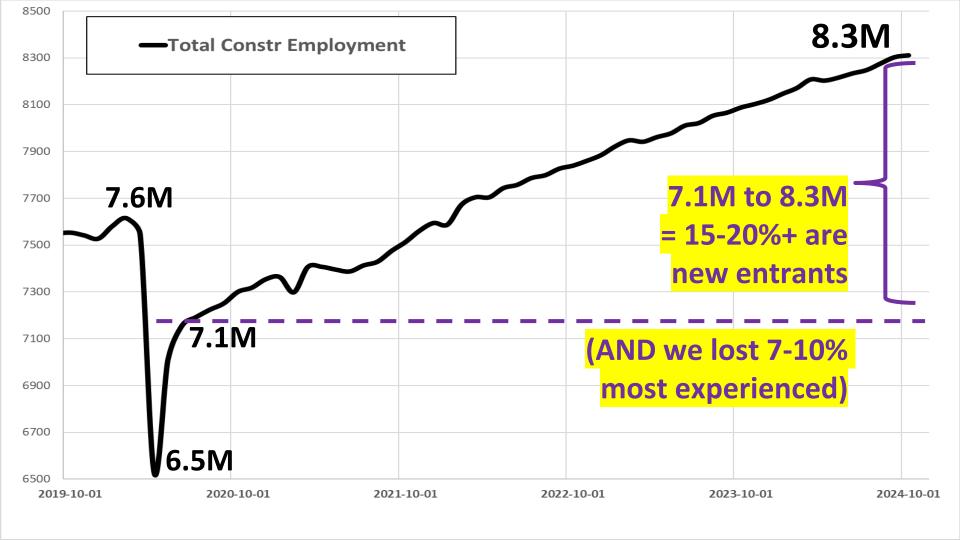


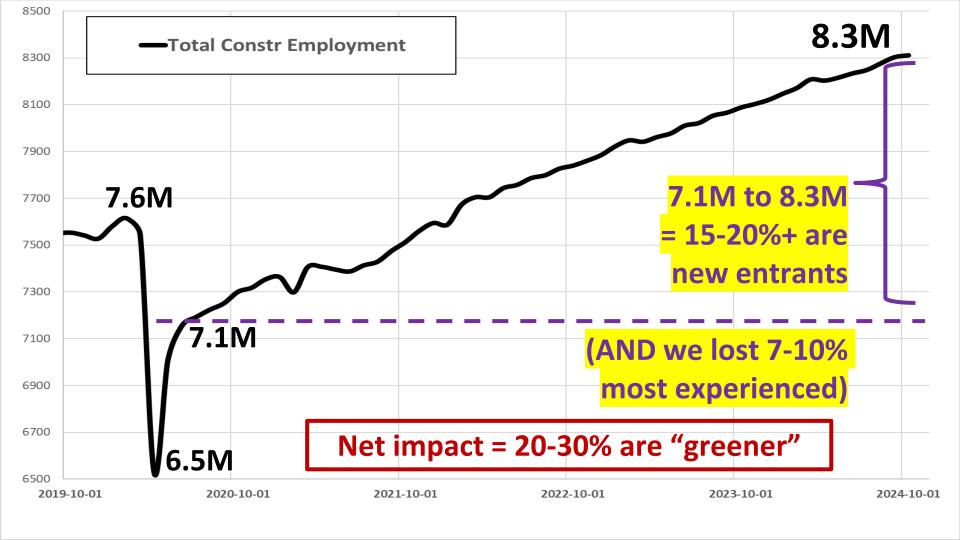












Current Procurement Trends & Challenges

Busier than Ever

"We're running to keep up with the assessments."

Short Staffed

• Understaffed, unable to fill open positions, private sector often poaching talent

Increasingly Inexperienced

 "For every qualified individual, there are 6 vacancies in the procurement sector." (NASPO)

Aging

• "30% of supply chain professionals are at or beyond retirement age." (NASPO)

Workforce!

Since the year 2000, the US Population has gotten:

Older or younger?



Workforce

Since the year 2000, the US Population has gotten:

Older by 3.9 years



Workforce

- Since the year 2000, the US Population has gotten:
 - Older by 3.9 years

- This trend is:
 - Accelerating or Decelerating?

Workforce

- Since the year 2000, the US Population has gotten:
 - Older by 3.9 years
- This trend is:
 - Accelerating



Workforce Challenges

Percent of Total Population in 2010 and 2019

□ 2010

2019

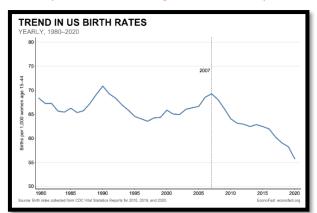
2020 Birth Rate 4% lower than 2019 Lowest Ever (11.99 Births per 1000 people) (up 1% in '21, up 0.09% in '22 10.7 in '23)

As of '23, 1.62 Births/woman – Lowest Ever Recorded

----'24 1.59 Births/woman – new lowest

(was 31% higher in 1990)

(was 102% higher in 1950)







Total Births

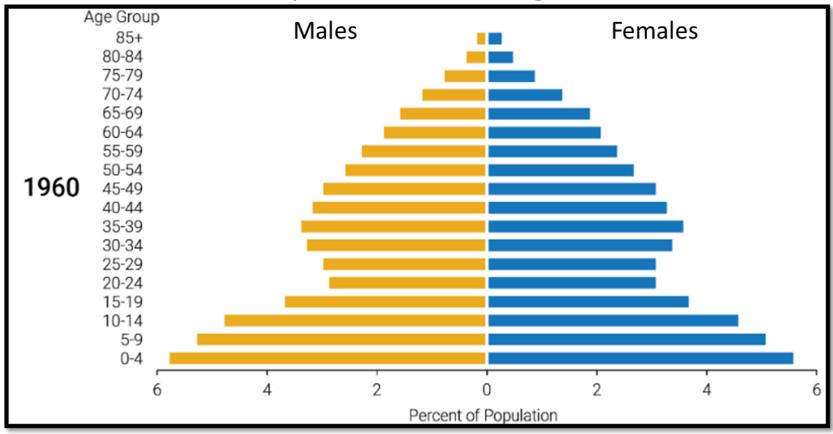
- Boomers 76 to 79 Million
- Gen X 65 Million
- Millennial 72 Million
- Zoomers 69 Million
- Gen Alpha 45 Million
- Gen Beta (2025-2039) ????

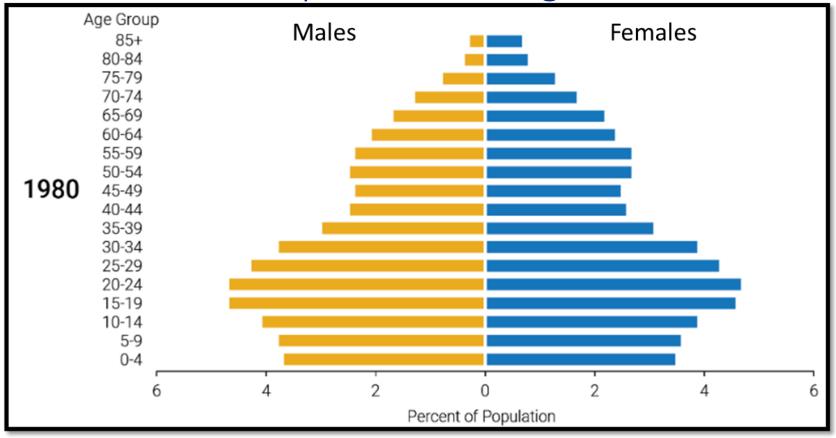


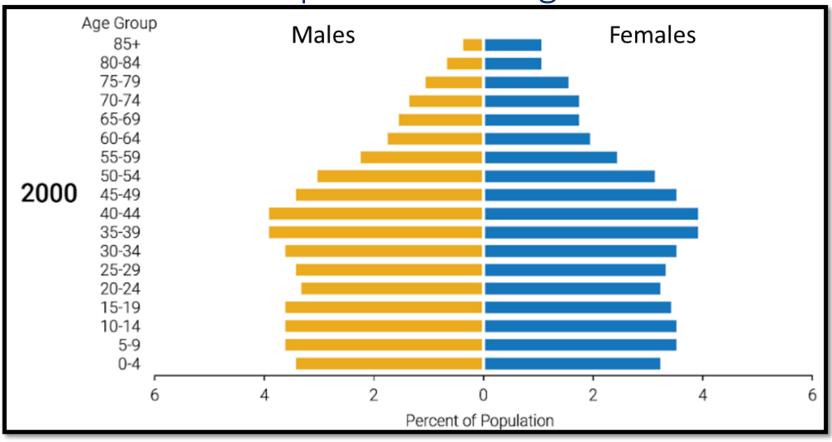
Workforce Challenges

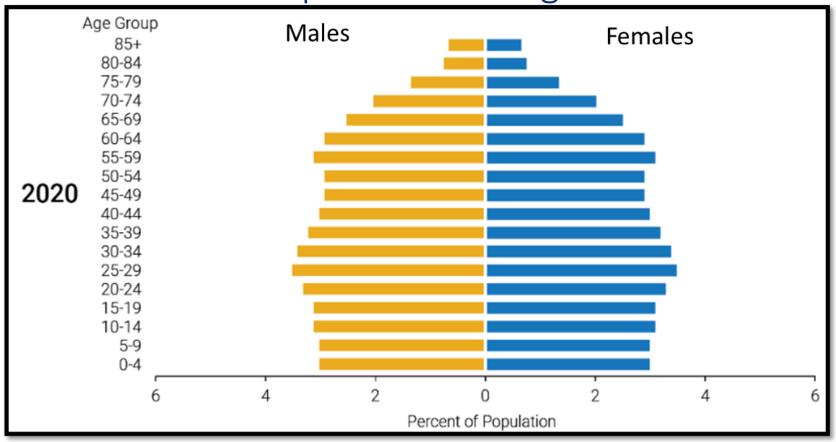
- Baby Boomers created incredible wealth
 - Young X, Old Millennials are expected to inherit ~\$80 Trillion from their parents begins 2030-2035
- More men 25-34 y.o. live with parents than with spouse (first time since 1880)
- Drugs are a big problem (robbing nearly a million prime-age men a year from the workforce)
- 2.4M Women left workforce since Feb 2020
- Demographics will only be getting worse moving forward

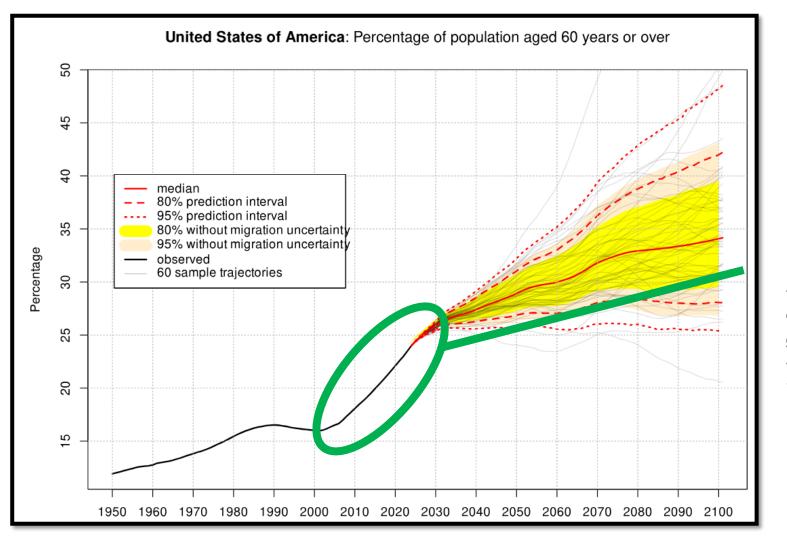






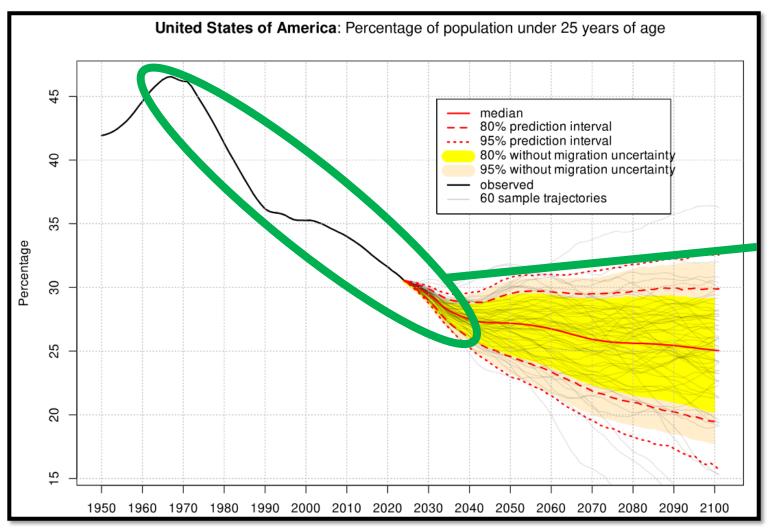






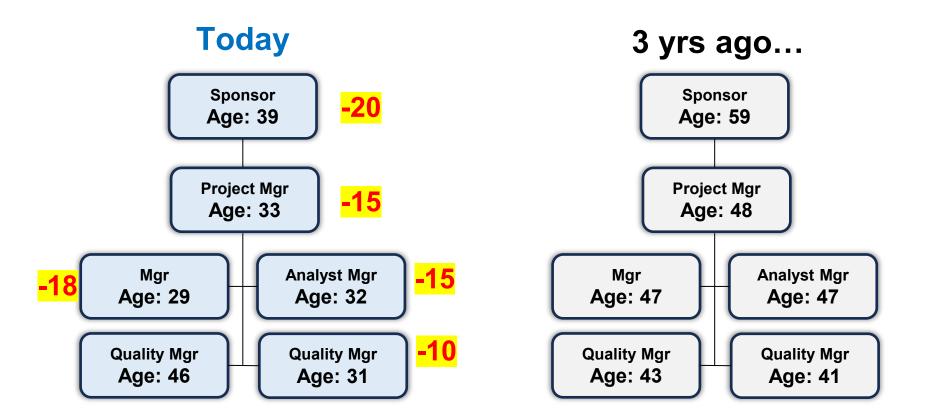
Near Exits

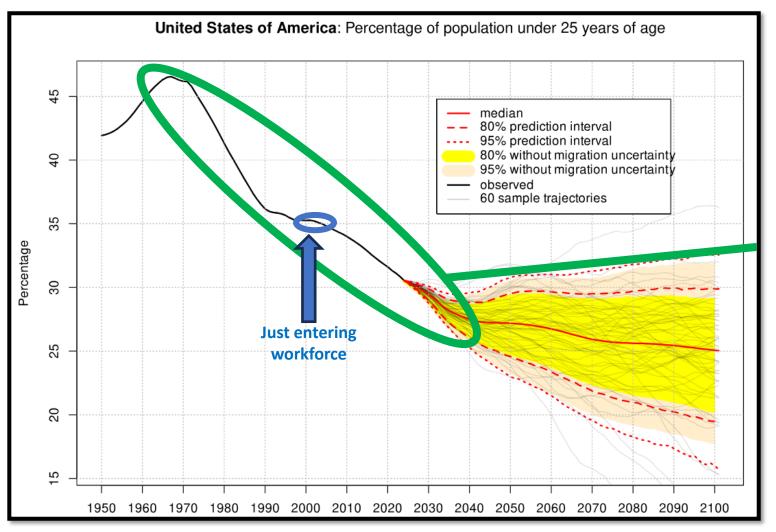
-60+ yr olds as a % of population has grown 50% -Doesn't level off to mid-2030s



No More Senior Discounts

Massive decrease in future workforce as a % of population





No More Senior Discounts

Massive decrease in future workforce as a % of population

Zoomer "Fun" Facts - New York Post, Cigna, Others

Gen Z Workers

- 98% experience burnout
- 23% face unmanageable stress
 - · Most stressed generation of all time
- 48% feel drained
- 46% lack professionalism
- 19% of college graduates bring a parent to a job interview
- 39% lack communication skills
- 75% of companies say some or all of Gen Z workers are unsatisfactory
- 50% of companies say Gen Z lacks motivation
- 37% of Gen Z workers have low productivity (if boss is 12yrs older it goes to 56%)
- · 6 out 10 employers have fired Gen Z workers within one month of hiring
- 1 out 7 employers indicate they may not hire Gen Z workers in 2025
- 41% born to single mothers
- 65% have mental health issues (33% are depressed) (missing 24% of workdays)

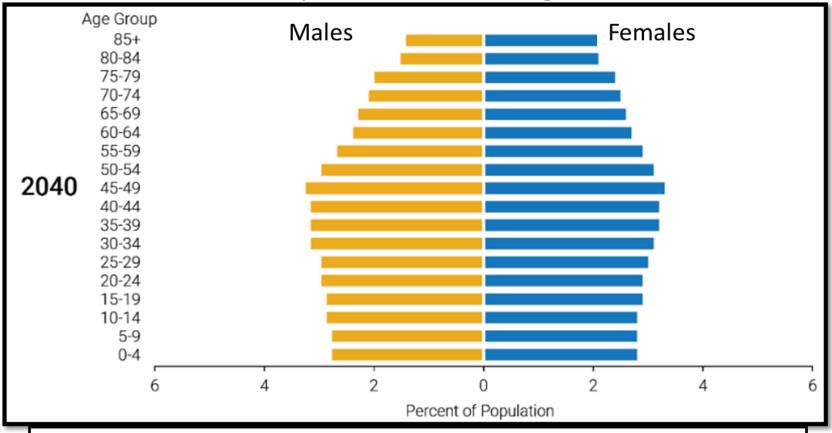
Boomer Legacy in the Workplace

- "Boomerism" → current business assumptions and models are built around boomer workforce characteristics from 1980s-2000s.
- Historical context:
 - Boomers entered workforce during period of more people than jobs
 - Created loyalty-based work culture with hierarchical military-style management structures.
- Current procurement & contracting models assume available skilled workforce, stable supply chains, and stable pricing - assumptions no longer valid.



Challenges with Boomer Exodus

- Great recession (2008) delayed boomer retirements by 10-15 years, preventing natural workforce transition.
 - Artificially extended average career cycle
- Most productive employees (55+) compensated for millennial productivity gaps but are now retiring in masses.
 - Millennials are the least productive generation in the history of the country
 - Zoomers are joining the workforce now and they might be worse!



2040 Fertility Rates will be below replacement rate – all growth will be immigration 2024 Growth rate of 65+ Age will outpace growth of younger generations thru 2054

Mid- and Long-Term Outlook

this is the BEST it will be

(for the remainder of our careers barring a sustained recession/depression)

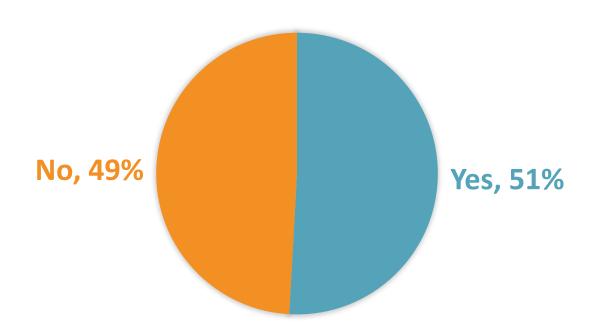


Recent Al Survey from CPE

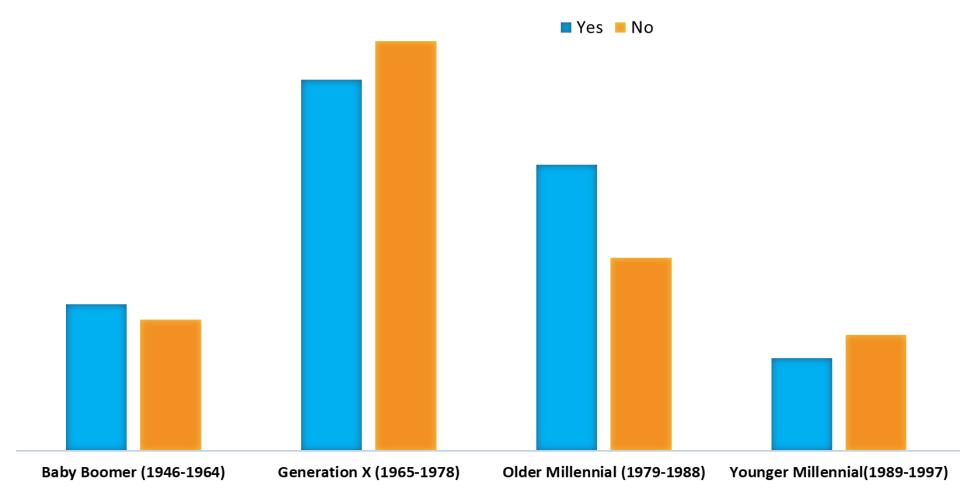
May 2025 = 654 procurement professionals responded

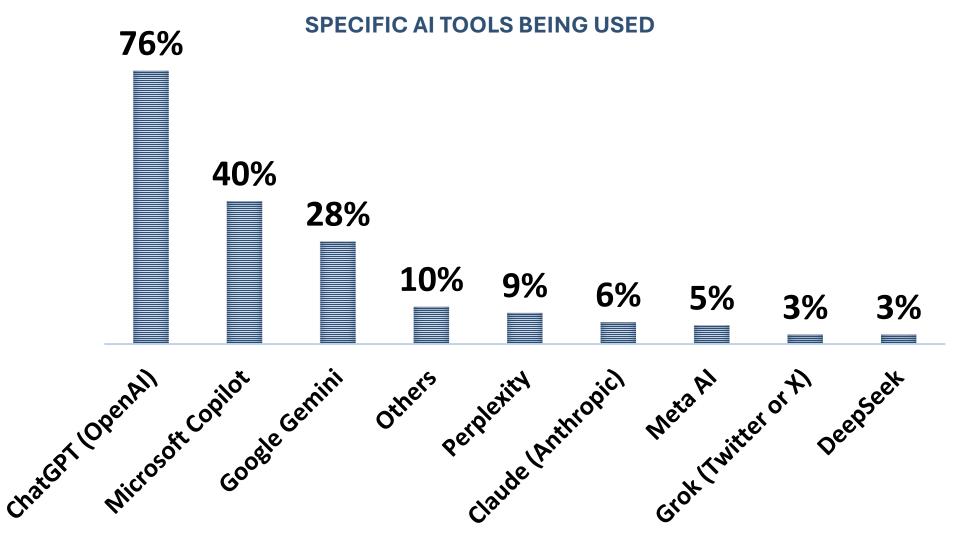


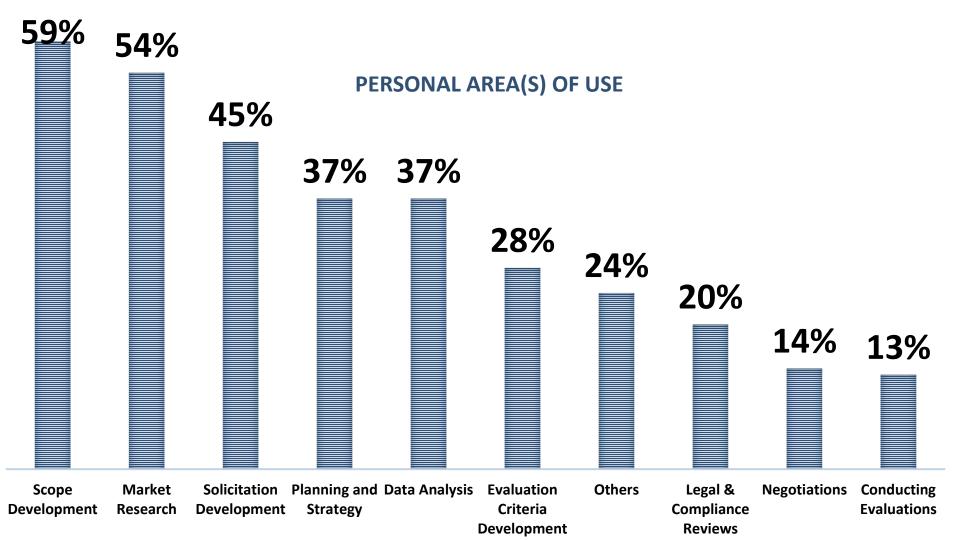
USE AI WITHIN PROCUREMENT JOB FUNCTION



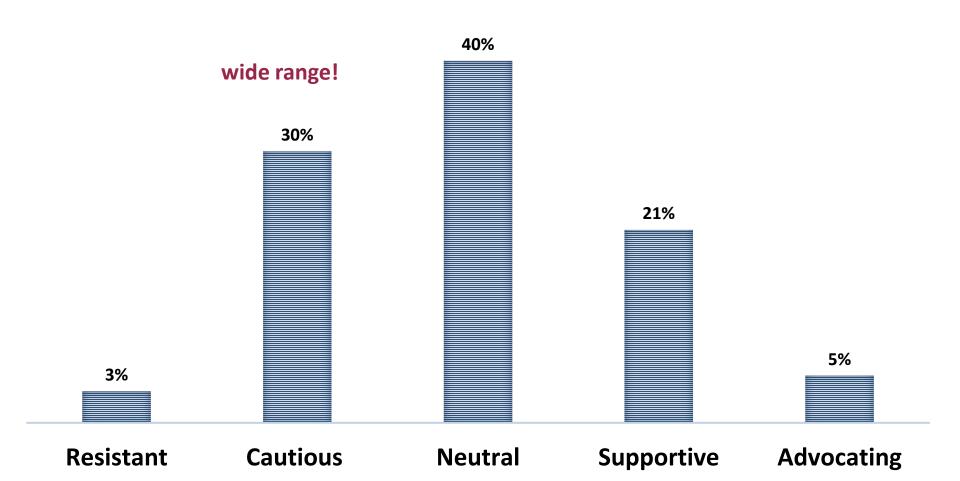
AI USAGE BASED ON GENERATIONAL AFFILIATION



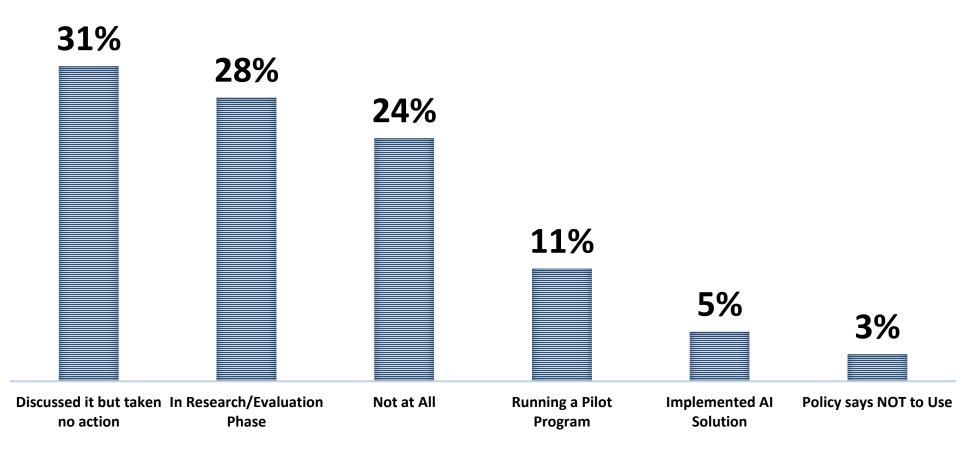




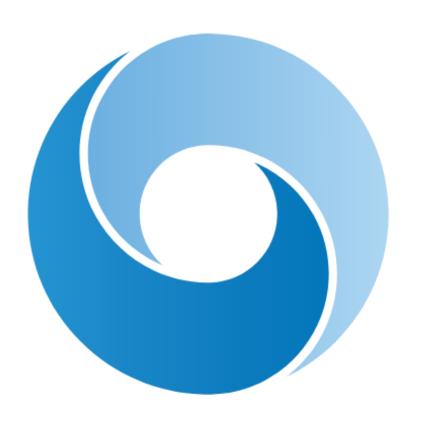
LEADERSHIP'S CULTURE AND ATTITUDE TOWARD AI



STRATEGY FOR IMPLEMENTING AI TOOLS IN PROCUREMENT





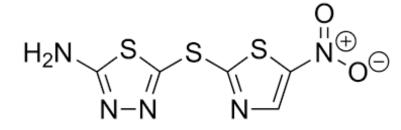


"Chess has been shaken to its roots by AlphaZero"

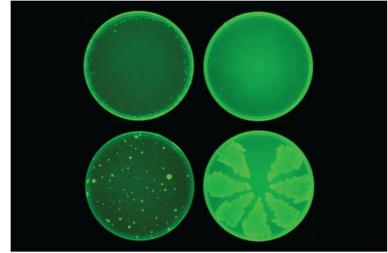
Garry Kasparov

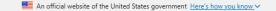
Chess Grandmaster
World Champion (1985 to 2000)
Ranked #1 for 255 Consecutive Months





Artificial intelligence yields new antibiotic A deep-learning model identifies a powerful new drug that can kill many species of antibiotic-resistant bacteria. Anne Trafton | MIT News Office February 20, 2020







> Antibiotics (Basel). 2021 Dec 2;10(12):1480. doi: 10.3390/antibiotics10121480.

Assessment of the Antibacterial Efficacy of Halicin against Pathogenic Bacteria

Rayan Y Boog ¹, Essam A Tawfik ^{1 2}, Haya A Alfassam ², Ahmed J Alfahad ¹, Essam J Alyamani ¹

Affiliations + expand

PMID: 34943692 PMCID: PMC8698312 DOI: 10.3390/antibiotics10121480

Abstract

Artificial intelligence (AI) is a new technology that has been employed to screen and discover new drugs. Using AI, an anti-diabetic treatment (Halicin) was nominated and proven to have a unique antibacterial activity against several harmful bacterial strains, including multidrug-resistant bacteria. This study aims to explore the antibacterial effect of halicin and microbial susceptibility using the zone of inhibition and the minimum inhibition concentration (MIC) values while assessing the stability of stored halicin over a period of time with cost-effective and straightforward methods. Linear regression graphs were constructed, and the correlation coefficient was calculated. The new antibacterial agent was able to inhibit all tested gram-positive and gram-negative bacterial strains, but in different concentrations-including the *A. baumannii* multidrug-resistant (MDR) isolate. The MIC of halicin was found to be 16 μ g/mL for *S. aureus* (ATCC BAA-977), 32 μ g/mL for *E. coli* (ATCC 25922), 128 μ g/mL for *A. baumannii* (ATCC BAA-747), and 256 μ g/mL for MDR *A. baumannii*. Upon storage, the MICs were increased, suggesting instability of the drug after approximately a week of storage at 4 °C. MICs and zones of inhibition were found to be high (R = 0.90 to 0.98), suggesting that halicin has a promising antimicrobial activity and may be used as a wide-spectrum antibacterial drug. However, the drug's pharmacokinetics have not been investigated, and further elucidation is needed.

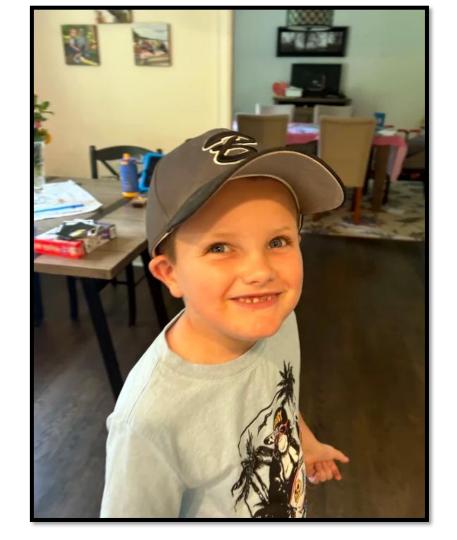


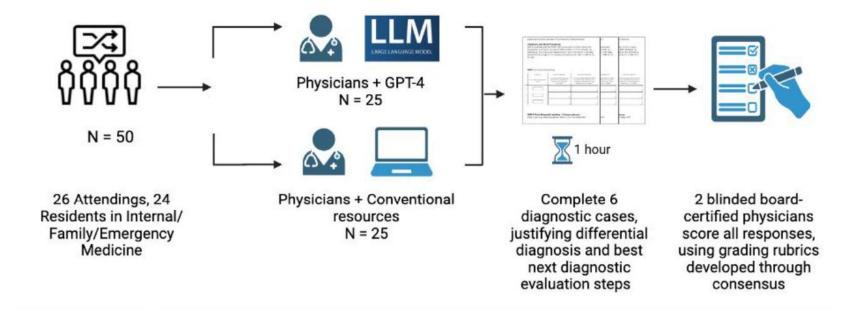


"At the end of the hourlong flight, Kendall climbed out of the cockpit grinning. He said he'd seen enough during his flight that he'd trust this still-learning AI with the ability to decide whether or not to launch weapons in war."

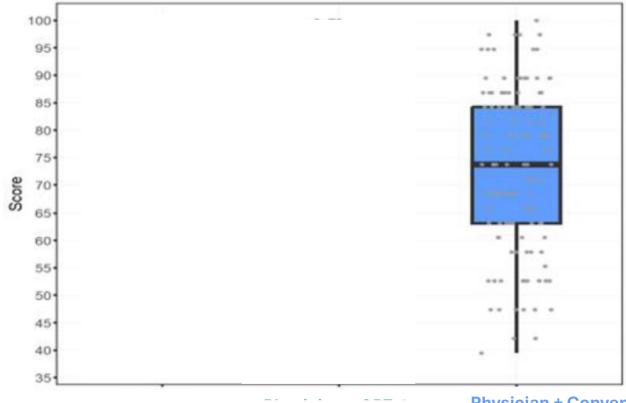


"I went line by line of everything that was in his (MRI notes) and plugged it into ChatGPT," she says. "I put the note in there about ... how he wouldn't sit crisscross applesauce. To me, that was a huge trigger (that) a structural thing could be wrong." (Mother)





50 Physicians randomized to complete a diagnosis quiz with GPT-4 vs. conventional resources. Participants were asked to offer differential diagnosis with supporting statements of findings in favor or against each differential, and to propose best next diagnosis evaluation steps.



Physician + Conventional Resources Only

74% Score

A New Study Says ChatGPT Is A Better Therapist Than Humans — Scientists Explain Why

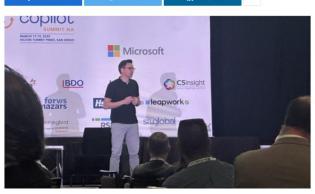
By Dimitar 'Mix' Mihov, Contributor. I write about the good, the bad and the ugly ... v

Follow Author

Feb 17, 2025, 08:59am EST

- •Al rated higher ChatGPT outperformed human therapists in couples therapy
- •Recognition gap Participants correctly identified human responses 56.1% of the time vs. 51.2% for AI, showing little distinction.
- •More context = better ratings Al used more nouns and adjectives, improving clarity and connection in responses.
- •Bias effect Al responses rated highest when mistakenly believed to be from a human; human responses rated lowest when misattributed to Al.





Recent Posts

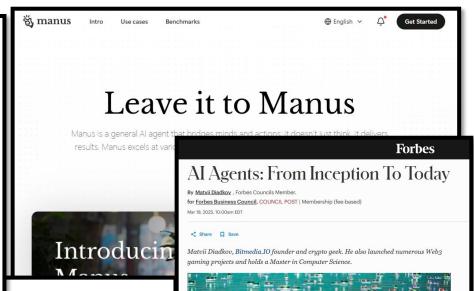
Microsoft VP of AI Agents Ray Smith on Business Transformation Through AI Agents

Oracle Eyes 'More Cloud Regions than All Competitors Combined,' Says CEO Safra Catz

AI Agent & Copilot Summit: Christopher Lochhead on Building a Legendary Career in the AI Era

Oracle's Safra Catz: 'We'll Have More Cloud Regions than All Competitors Combined'

Oracle Q3 Cloud Surge: 10 Reasons RPO Jumped 63% to \$130 Billion





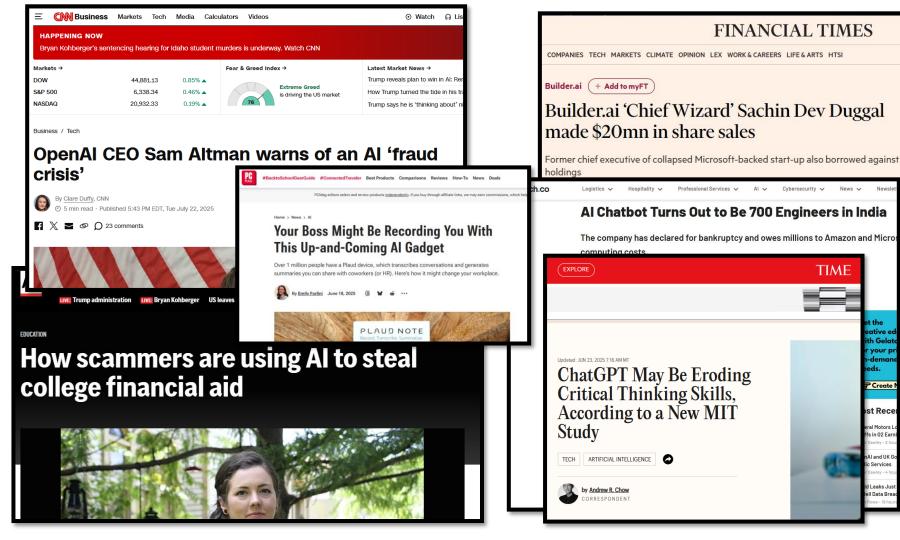
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Browse at the speed of thought

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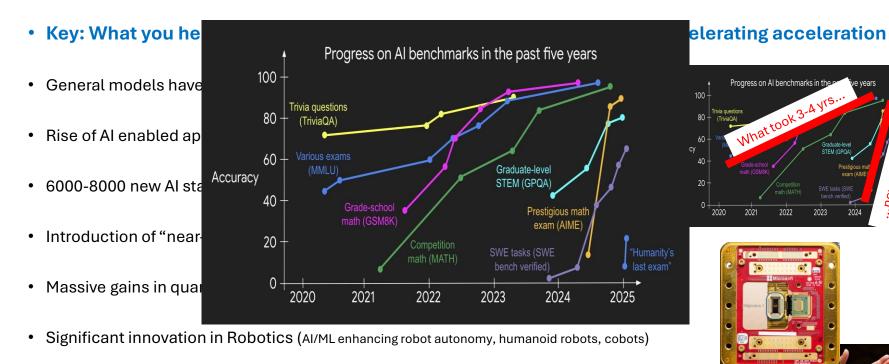
fs in 02 Earn

Leaks Just

II Data Bread

Key Takeaways

Where Al Has Been the past 12 months



6 months

takes,

MOU.

What happens in the Near Future

- Key: Nothing happens overnight but window for surfing the wave vs being carried under is small
- 10-20% of self-improvement "coding" is being done by AI this will go to 100% within 12 months
- Agents will be widespread, can be fully autonomous + work with humans
- AGI about 2-5 years ahead of schedule ~3 years to in-your-pocket
 - AGI = smartest human in any field
- Timeline to ASI has been compressed by years
 - ASI = smarter than all humans combined discipline transformative
 - ASI 2 to 5 years
 - Most recent projections have ASI at mid- to late-2027 for specific areas (like a coding ASI)
- ASI + Quantum = complete societal transformation

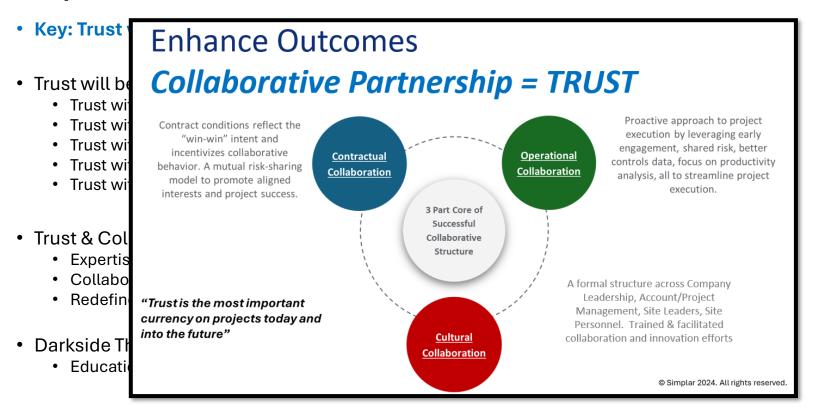
One Quick Thing About Al....

- In most all previous technologies and innovations junior (or younger) employees were very effective at teaching and helping the more experienced and senior employees learn and adopt the new technology
 - Largely due to willingness to try innovation that conflicts with traditional or standard practice (and not having invested as much time & expertise)
- For AI, this is being proven to NOT BE TRUE for AI. Juniors are not more capable than seniors at adopting AI
- Thoughts are the technology is so different that being younger is not as advantageous....

Movement of Mindsets

- Key: Perceived probability is increasing, and AI is just one of several "events"
- Al Hype vs Al Potential
- Only 30% of Companies in year 2000 successfully transformed post-internet
 - 50% completely gone, avg. life span on S&P 500 went from 61 yrs to 18 yrs
 - The Difference: Internet is a Bolt-On vs Use internet to reimagine/rebuild B-model
- Increasingly Obvious Shift of the Labor Market Al is part of the solution
 - Boomer wealth transfer
 - Millennials' productivity
 - Zoomers' capability + mental health
 - Boomerism
- Dynamic Simultaneous Events Tech revolution, Demographic transformation, Economic concerns, Supply Chain uncertainty, Global instability, Mental Health Crisis...

Impacts on the Profession



- Demand not decreasing for at least 15 years (if ever)
 - Unparallelled Opportunity to meet demand at a lower cost

What is the Future of Trust?

Price will be less and less of a differentiator between proposals

• The ability to reliably deliver at, and create value beyond, client requirements will have the most value

- In this environment, Trust or Trustworthiness will be a currency as the other cost differences between suppliers and service provides will approach zero
 - Trust will be tied more to individuals within a company than the company itself



Trust in Procurement – the next few years

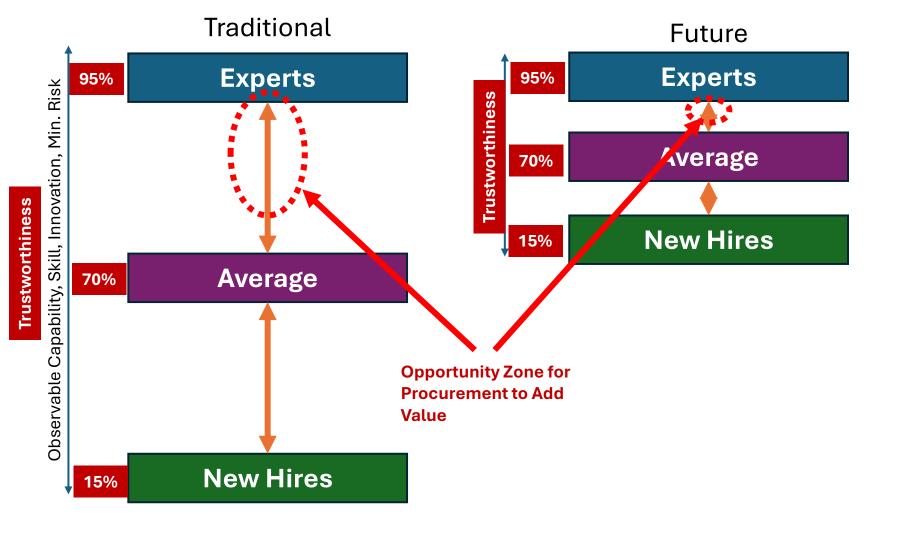
- Gap between Average and Expert will continue to collapse
- Value & Expertise will be more and more difficult to assess using a solicitation
- Vendors will lose trust in SOW and Requirements as being accurate
- Initial Price & Expectations VS Final Price & What was Delivered
- Contract negotiations faith, goodwill, humanity will decrease







Trustworthiness does not change, even though the ability to measure the gap in expertise will be very difficult



KEY TAKEAWAY

Clients, Buyers, Contractors, Suppliers...

are in competition with each other

for the same

limited pool

of skilled personnel



Where do we go from here?



Unbelievable Opportunity for Procurement

Procurement is key location where organizations put trust into action

Procurement = Trust Broker

- Internal: Move from Transactional to Stewards of Truth, Relationships, and Vision (Data-Centric)
- **External:** Balance internal trust (users to procurement) and external trust (vendor believe org is fair and good, SOW is reliable, etc.)
- **Frontline discerner** clients come to procurement first (not just because they have to)
 - Procurement has the capability to identify and buy the marginal gain provided by the human

Redefine Contracts

- Contracts are a lagging indicator of trust
- Need leading indicators (robust performance information, value-audits, open-pricing, alignment with other similar clients, crisis response cases, etc.)
- Able to conform to rapid technological and social change

Actions to Get Started

Perform a "Trust Audit"

- Internally do your internal customers "trust" procurement and the individuals within procurement, your systems, processes, etc.
- Externally do your external vendors/suppliers "trust" procurement and your organizations, your processes, tools, etc.

Begin to intentionally document and measure

- Formalize the details of the processes and training
- Measuring performance points quantitatively and qualitatively
- Prepare for AI transition clean learning data

Intentional collaboration with vendors



Trust Audit

- Quantitative performance metrics (speed, accuracy, rework, price, etc.)
- Qualitative satisfaction, trust measures, etc.

Dimension	Definition
Competence & Expertise	Belief that procurement knows the market, understands needs, and sources effectively. Knows the rules and how to work within the rules to optimize an outcome in the best interest of the client
Reliability & Consistency	Confidence that procurement delivers results predictably and follows through. Does not vary based upon which team member does the work.
Transparency & Communication	Openness in explaining decisions, trade-offs, and vendor rationale. Educates clients on best practices from their perspective.
Alignment & Partnership	Sense that procurement's goals align with organizational and departmental objectives. Procurement is an active partner looking for the best interest of the dept, not just procurement org.
Responsiveness & Empathy	Perception that procurement is working as hard or harder than they are, response quickly, makes and keeps schedules, listens and adapts to real-world needs.



Conclusion – I am Very Excited for the Future

- Economic & Supply Chain Uncertainty + Workforce Challenges
- AI = Looking more & more likely not theoretical, requires experiential learning
 - Different than the nuclear bomb moment
- People > AI...but a new workforce model is needed
- New Thinking for a New Economy
- Beat the Gold Rush Engage the Grand Experiment
- Never a Better Time for Change <u>Acting Now will be Easier</u> than Waiting till the challenges become more severe and everyone is forced to change



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