



PSMJ | Resources, Inc.®

A&E
Transformation
Now

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PSMJ Resources, Inc.



dis·rup·tion
/dis'rəpSH(ə)n/

noun

- 1. disturbance or problems which interrupt an event, activity, or process.**
- 2. radical change to an existing industry or market due to technological innovation.**

Uber: the world's largest taxi company...owns no vehicles.

Meta: the world's most popular media owner...creates no content.

Airbnb: the world's largest accommodation provider...owns no real estate.



**Space
Tourism**

**Genetic
Enhancement**

**Smart
Everything**

**Flying
Cars**

**Automated
Medical Exams**

**Printed
Buildings**

**Climate
Change**

**Food
Scarcity**

**Longer Life
Expectancy**

**Autonomous
Construction**

**Weather
Manipulation**



PSMJ | Resources, Inc.®

Improving the business performance of architecture, engineering, and construction organizations worldwide.

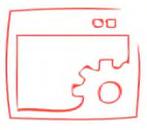
At every stage of your A/E/C career, our industry-leading research, interactive in-person and virtual events, and action-oriented advisory services are here to help you succeed.



**STRATEGIC
PLANNING**



**PROJECT
MANAGEMENT**



**BUSINESS
DEVELOPMENT**



**FINANCIAL
MANAGEMENT**



**TALENT
DEVELOPMENT**



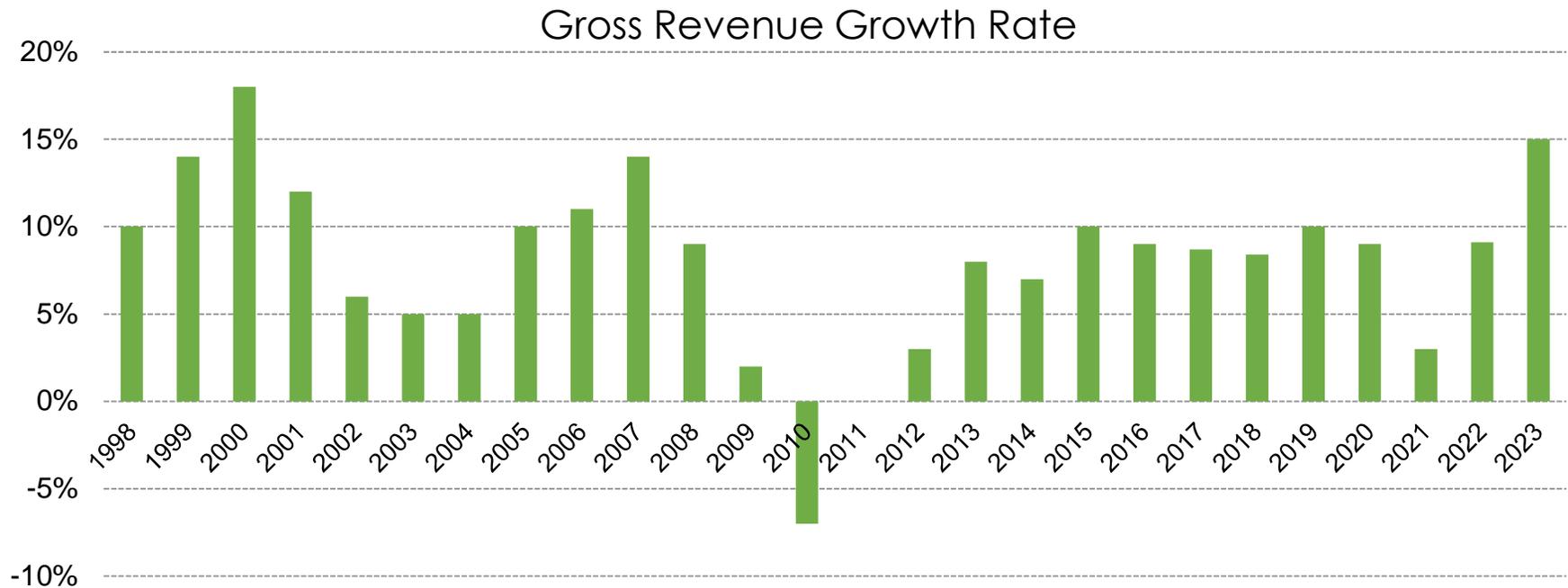
**MERGERS &
ACQUISITIONS**



**OWNERSHIP
TRANSITION**

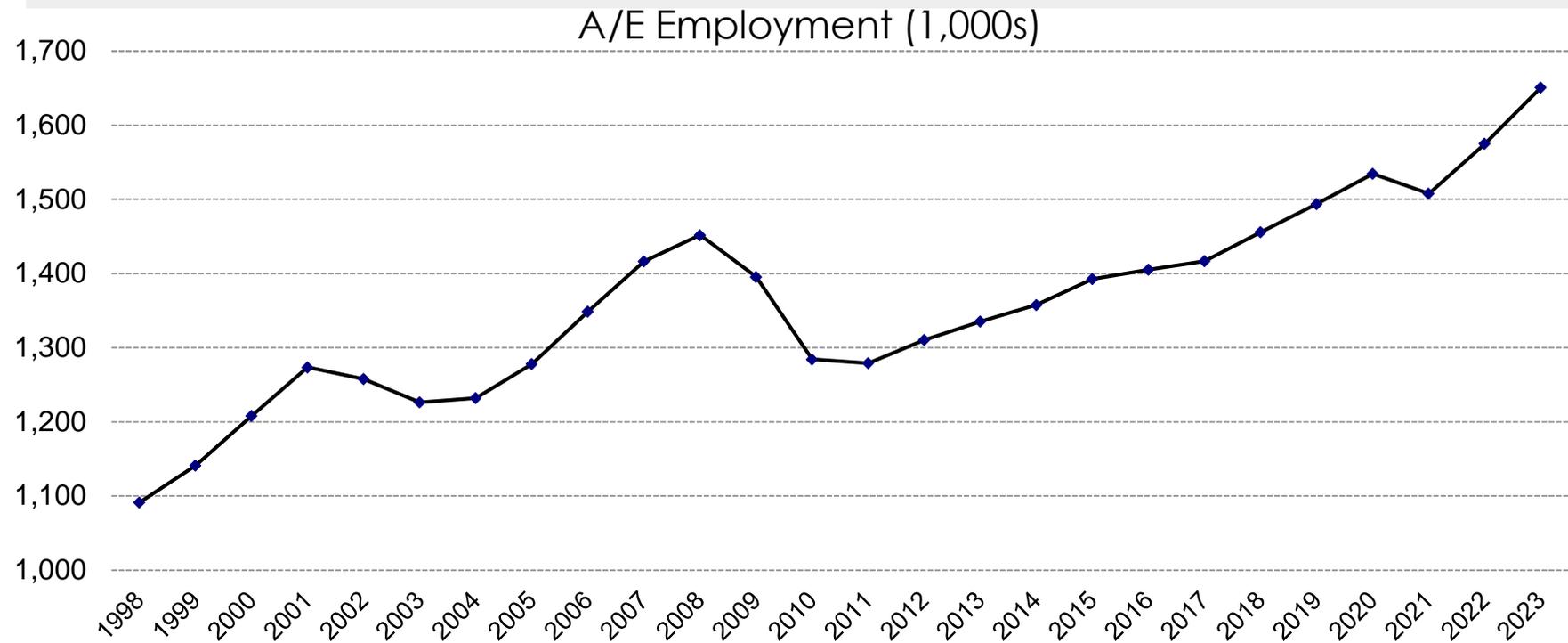
www.psmj.com

The A/E Industry is Growing



Source: PSMJ's 2023 A/E Financial Performance Benchmark Survey Report

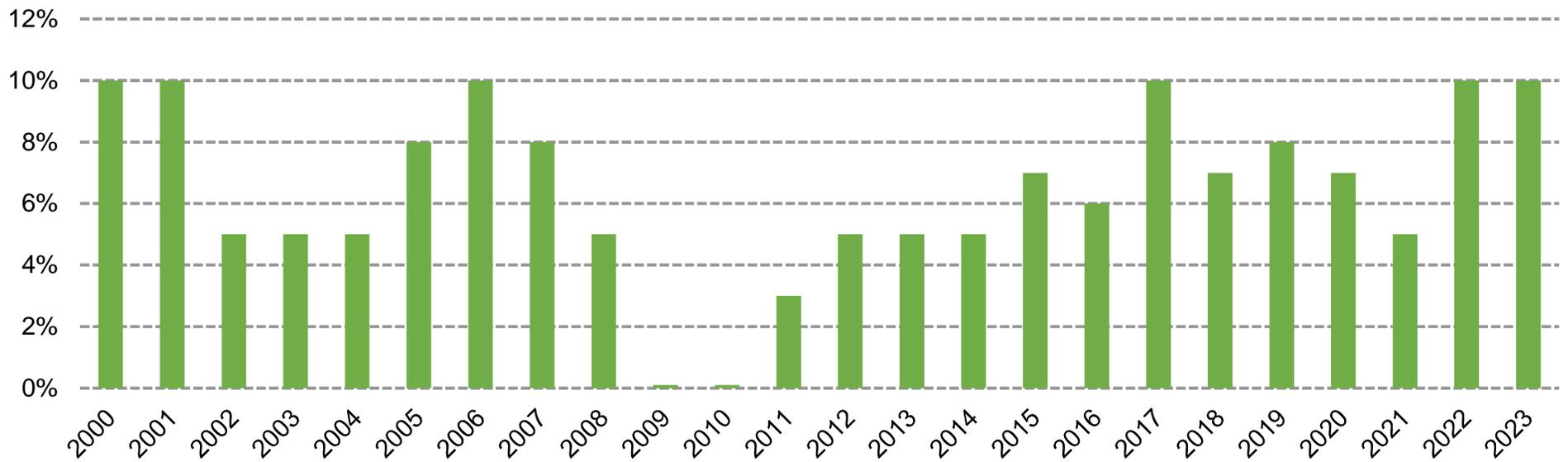
Employment is Growing



Source: U.S. Dept. of Labor Bureau of Labor Statistics

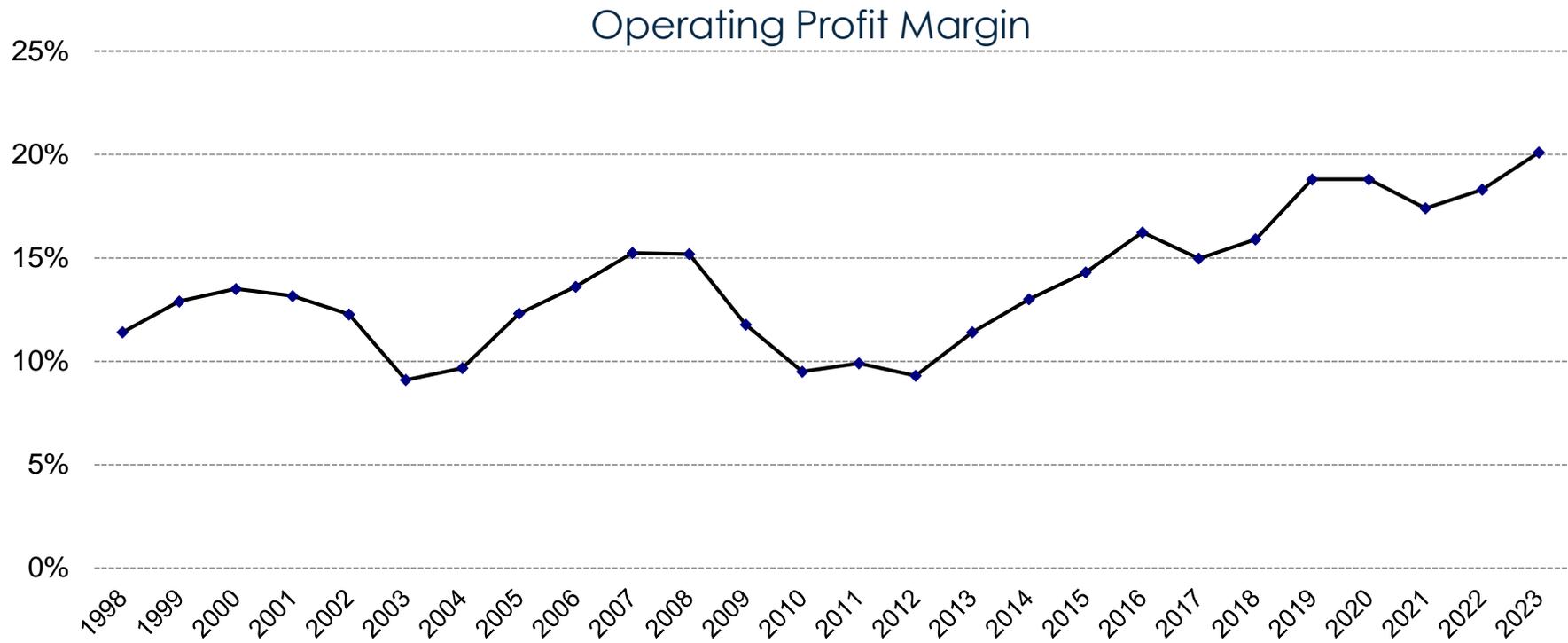
A/E Growth is Expected to Continue

Staff Growth Projections



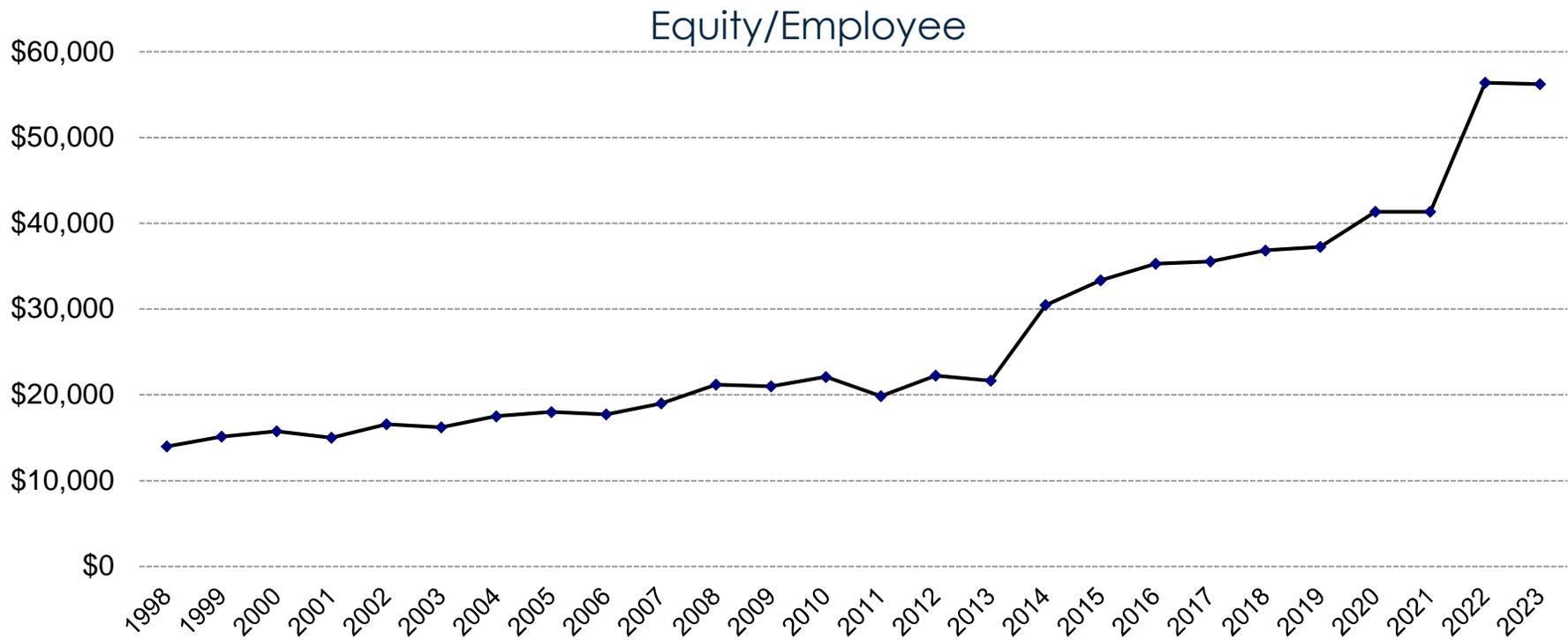
Source: PSMJ's 2023 Management Compensation Benchmark Survey Report

A/E Industry Profitability is Growing



Source: PSMJ's 2023 A/E Financial Performance Benchmark Survey Report

Balance Sheets are at an All-Time High



Source: PSMJ's 2023 A/E Financial Performance Benchmark Survey Report

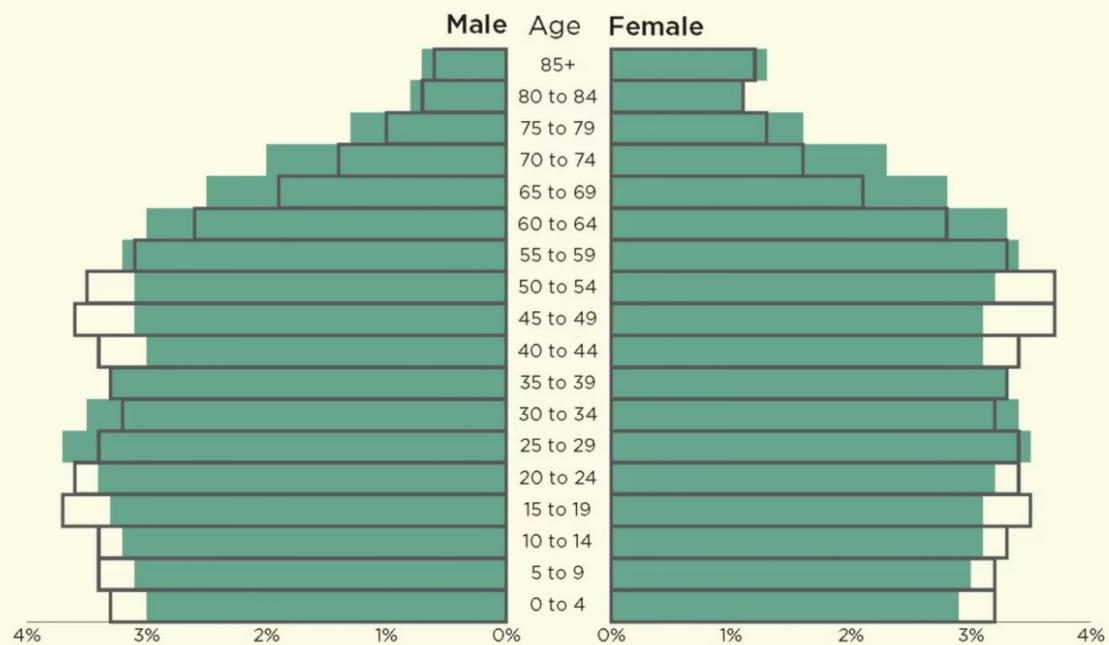


**The ~~trickle~~ ~~river~~
flood of outside
capital will keep
flowing.**

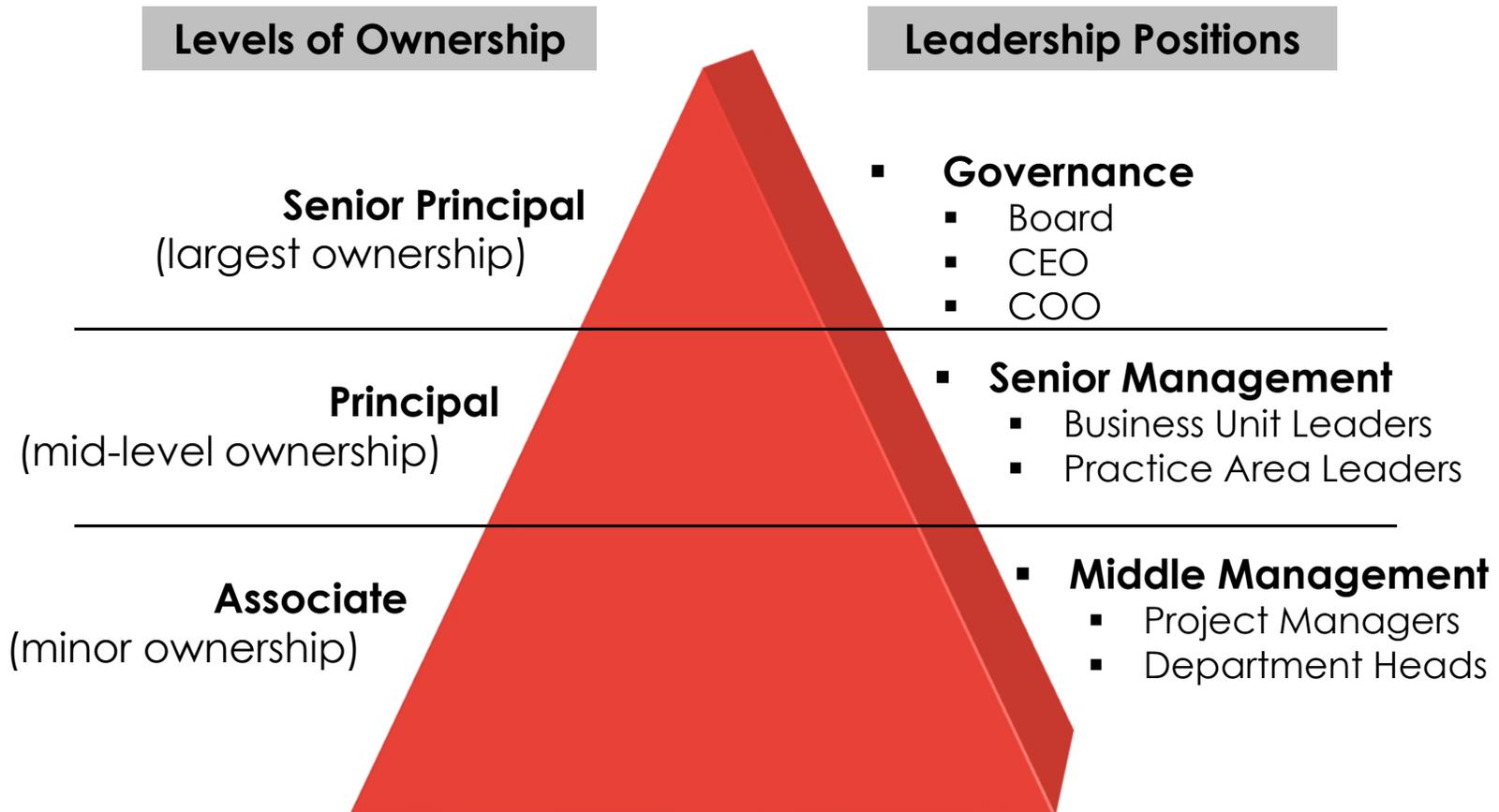


Percent of Total Population in 2010 and 2019

□ 2010 ■ 2019



Linking Leadership & Ownership



**\$2 trillion in
“dry powder”**



What does Private Equity like so much about the AEC space?

- ✓ **Stalled ownership transition plans.**
- ✓ **Capital (e.g. IIJA) pouring into some markets.**
- ✓ **A highly fragmented industry.**
- ✓ **A mature industry that is ripe for technological disruption.**

**Is this the
beginning of
the end of
the employee
ownership
model?**



GAME OVER

**Private Equity
is REALLY
good at
introducing:**

- ✓ **Accountability.**
- ✓ **Growth Capital (and culture).**
- ✓ **An Attractive Exit Strategy.**



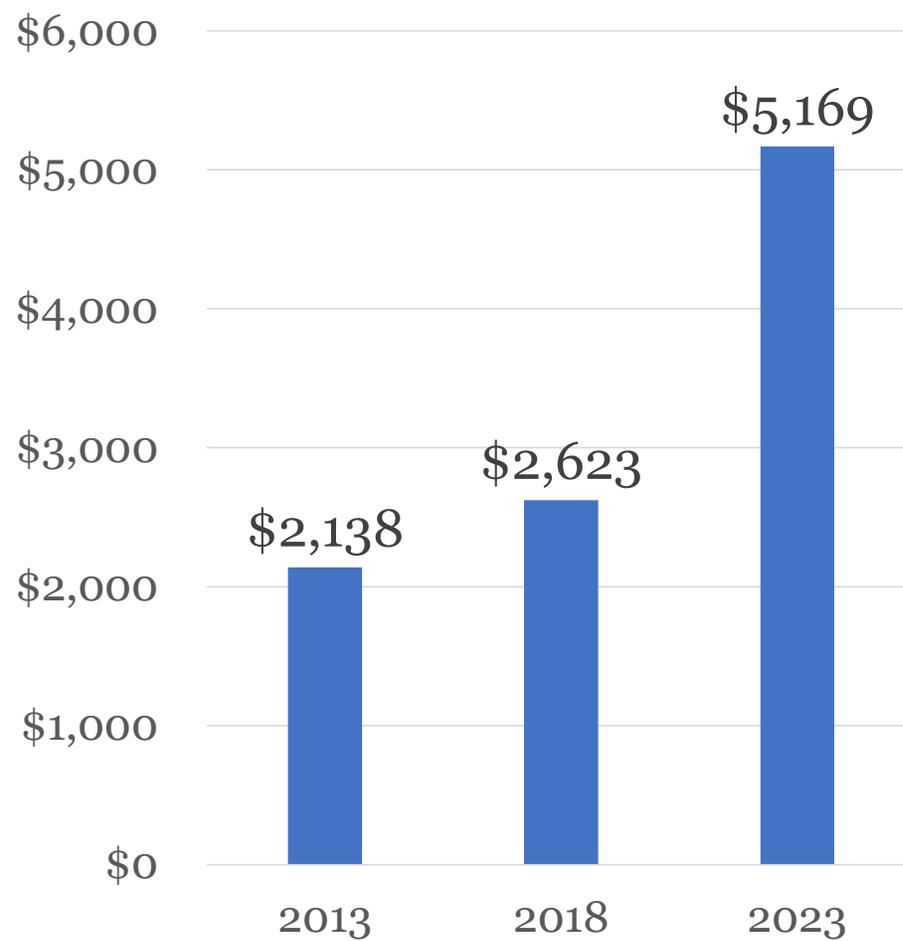
What should you do?

1. Remember that strong growth can hide weak strategy.
2. Perform a long-term stock redemption liability analysis.
3. Build an ownership program with an Equity Agreement.
4. Stress test the program every year.
5. Never get into a situation where you **NEED** to sell the firm to an outside buyer.



**You're a tech
company...you just
don't know it yet.**

**We're spending
way more on
tech...**

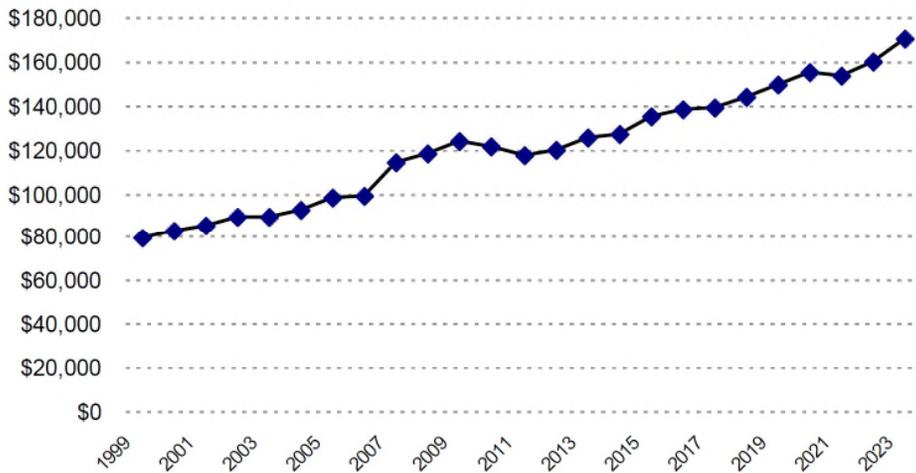


...and we're getting more efficient.

Net Revenues per Total Staff

2023	2022	2021	2020	2019
\$170,743	\$159,595	\$153,504	\$155,041	\$149,522

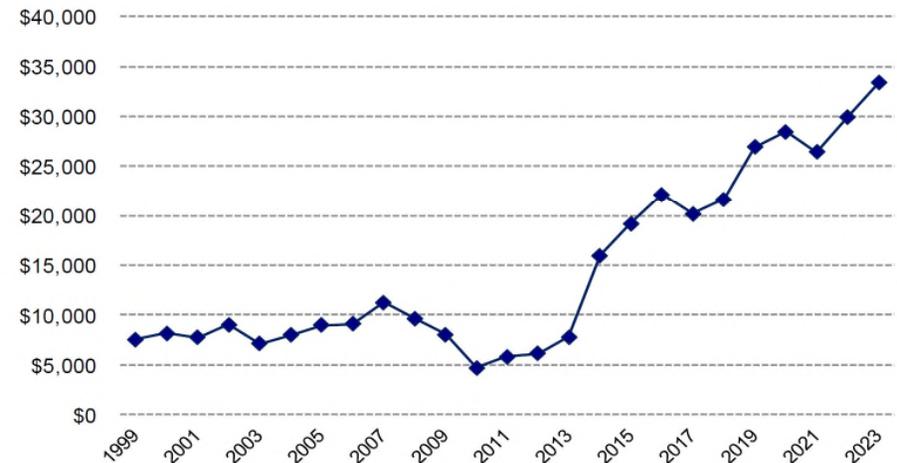
**Figure 20
Net Revenues per Total Staff**



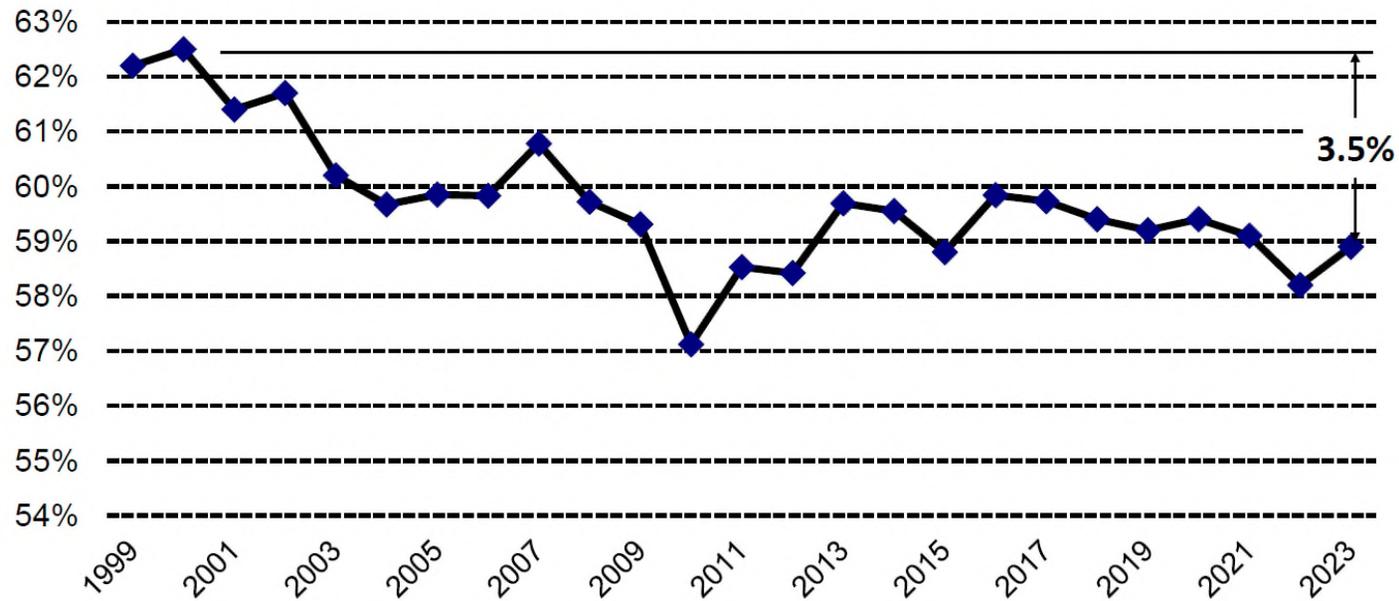
Operating Profits (Before Incentive/Bonus & Income Taxes) per Total Staff

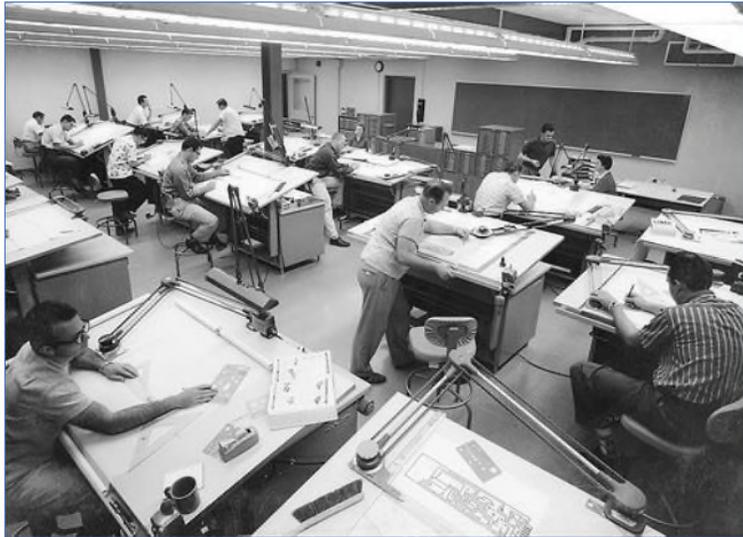
2023	2022	2021	2020	2019
\$33,378	\$29,998	\$26,467	\$28,501	\$26,953

**Figure 21
Operating Profits (EBBT) per Total Staff**

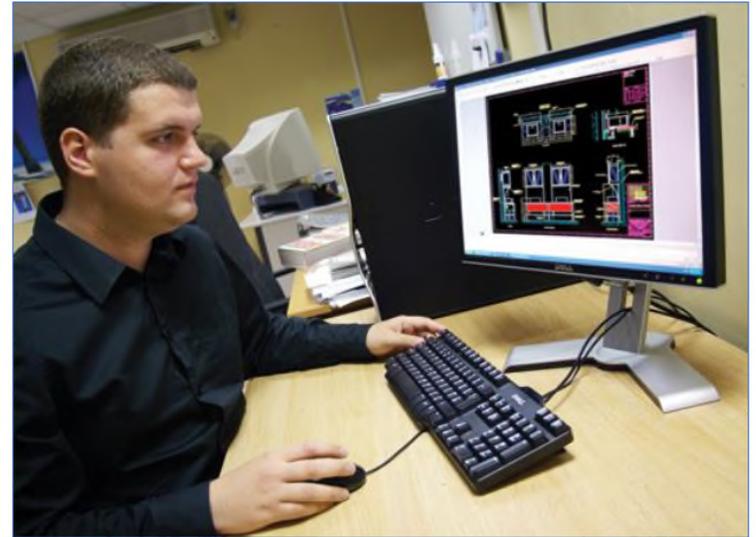


...and utilization is going down.





This



Has Turned Into This

“In my little group chat with my tech CEO friends there’s this betting pool for the first year that there is a one-person billion dollar company, which would have been unimaginable without AI and now will happen.”

- Sam Altman
OpenAI CEO
September 2023

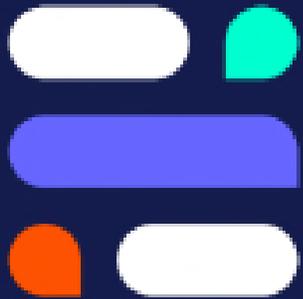
Source: <https://finance.yahoo.com/news/could-ai-create-one-person-120000722.html>





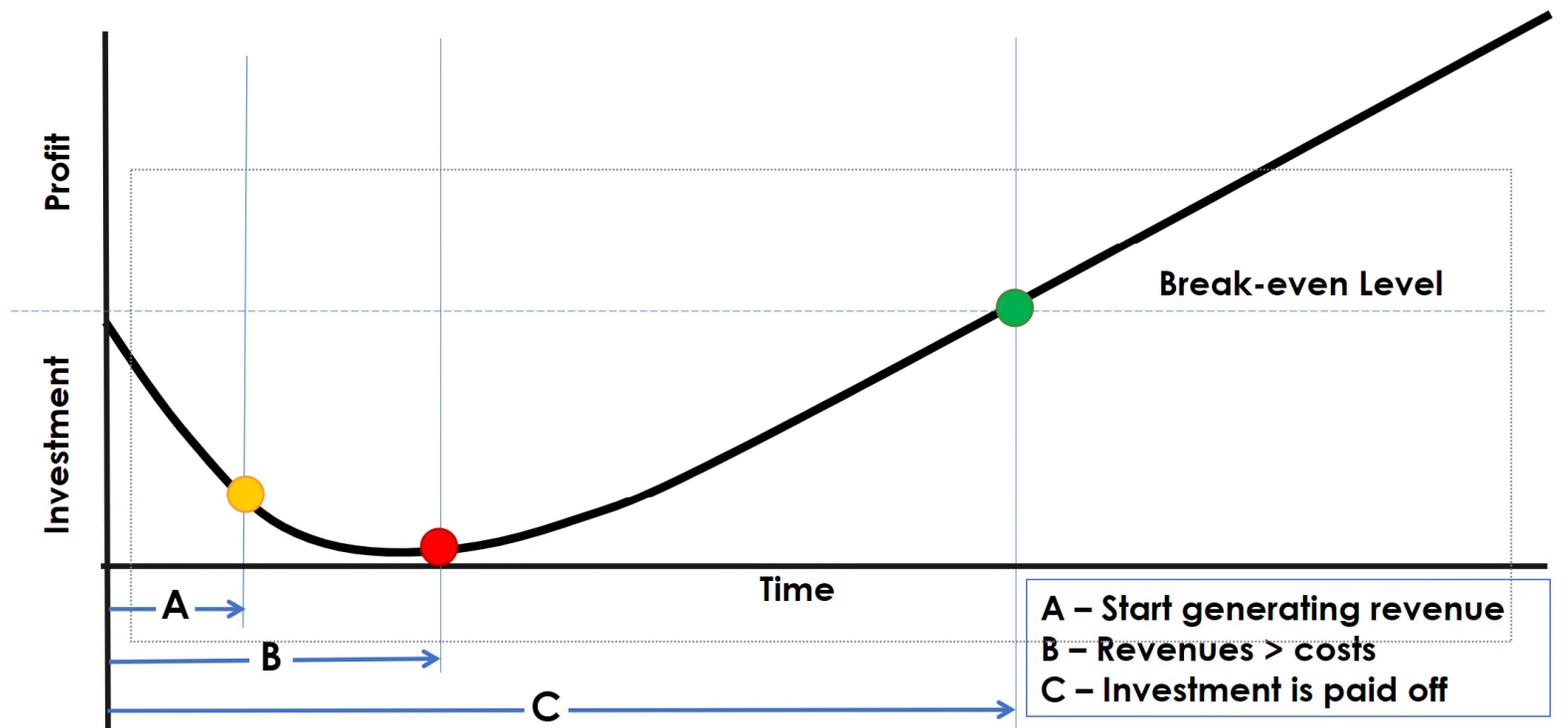
First...generative AI was a tool to use for writing proposals.

- Site Analysis
- Project Management
- Energy Efficiency
- Building Modeling
- Generative Design
- And so on...



Innovation Design Consortium





AI won't replace architects or engineers.

But, architects and engineers who use AI will replace those who do not use it.



What should you do?

1. Establish a formal AI policy that serves as the playbook for your firm.
2. Find your cross-functional tech evangelists and give them one day/week to meet, strategize, and recommend.
3. Hold a firmwide half-day hackathon to foster new ideas on tech tools, bottleneck busters, and more. Look for who rises to the challenge.
4. Don't get stuck in the rut that less time = lower fees.
5. Attend conferences, webinars, and anything else you can find on this...it is developing quickly.



**The “Old” AEC
Business Model Dies a
Slow Death.**

THE OLD MODEL

Sell more work



Hire more people



Bill more hours

Primary Tactics:

- Increase Headcount
- Raise Utilization

THE NEW MODEL

Find out what your clients really want



Add more value to what they want

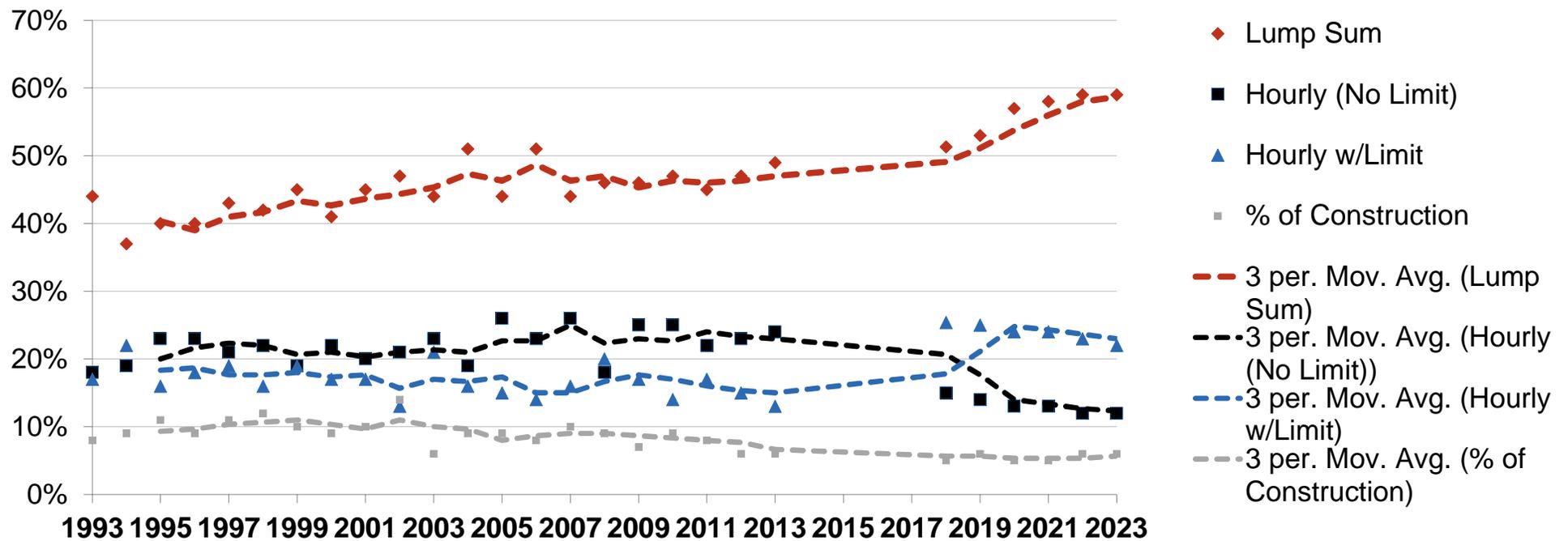


Leverage your hours to reflect your added value

Primary Tactics:

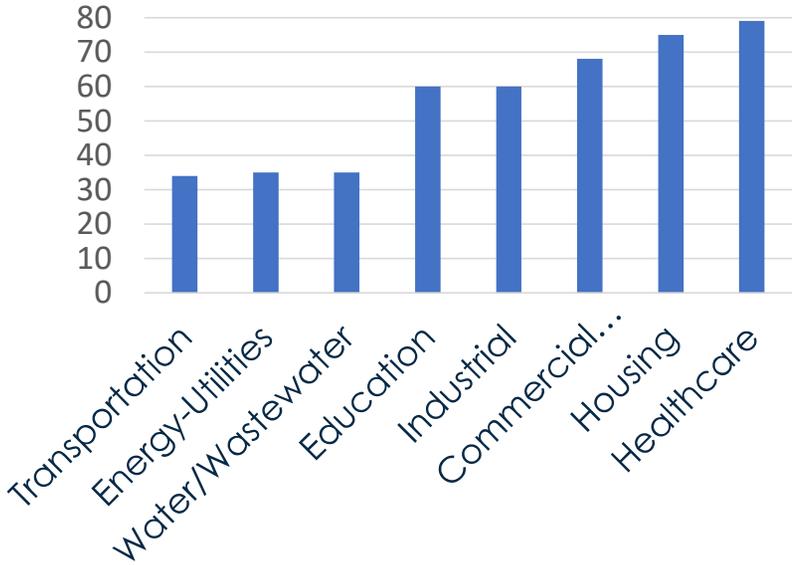
- More lump sum contracts
- Higher DL multiplier
- Increase employee leverage

Lump sum contracts are becoming more popular.

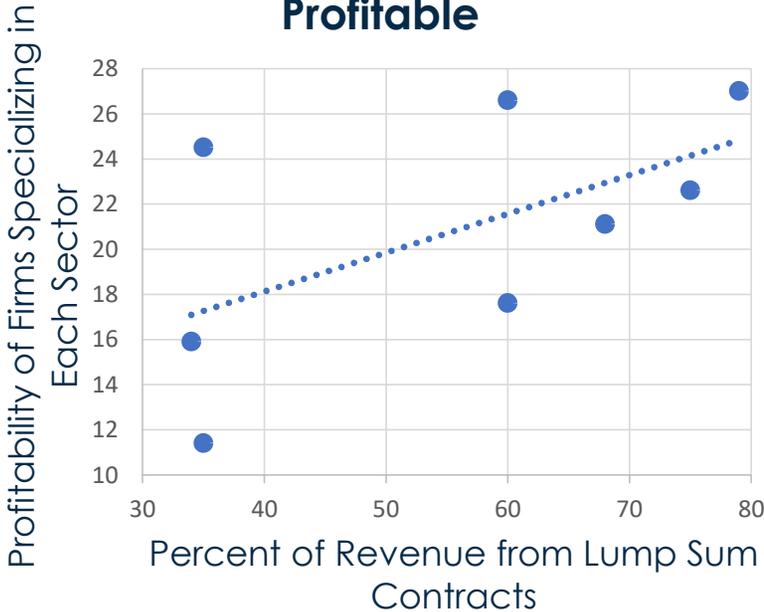


Lump sum contracts are more profitable.

Percent of Revenue from Lump Sum Contracts Varies by Market Sector



Sectors With More Lump Sum Contracts Tend to be More Profitable



Evolution of this model:

- ✓ **No more selling hours.**
- ✓ **A bigger emphasis on incentive compensation.**
- ✓ **Price on value/Manage on cost.**



What should you do?

1. Track employee leverage by measuring profit per employee.
2. Negotiate more lump sum contracts.
3. Increase your firm's target multiplier through higher pricing.
4. Find and fix profit leaks in project management (achieved multiplier).
5. Value staff quality more than quantity – at every position in your firm.

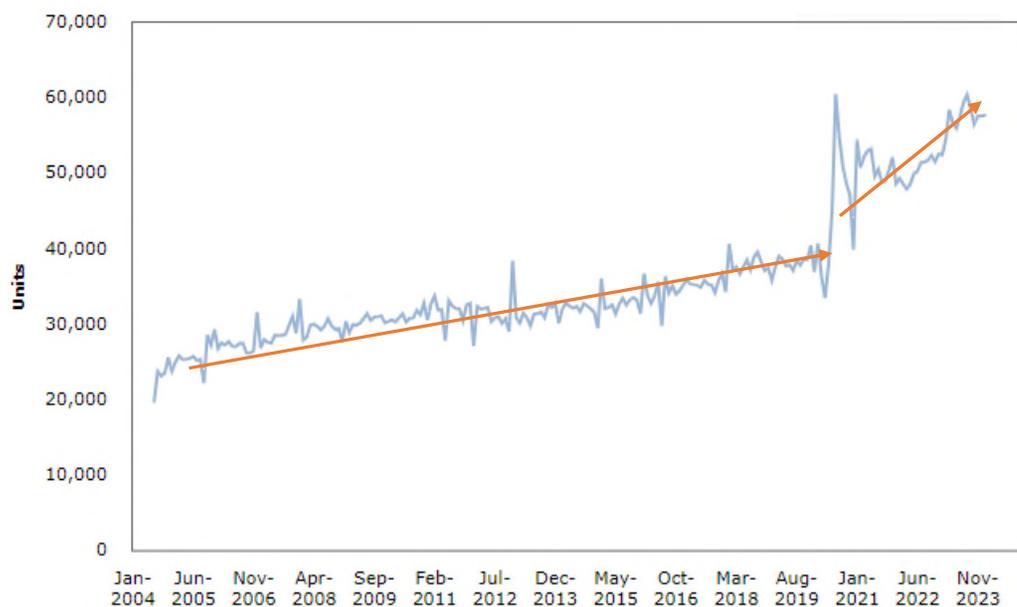
A large, bold, black number '4' is centered on a white brick wall. The wall is composed of rectangular bricks with visible mortar lines. The number is positioned in the lower-left quadrant of the image.

**The Offset to
Consolidation is an
Explosion of New
Firms.**

Source: Business Formation Statistics
Professional Services: U.S. Total
Jan-2004 to Dec-2024



Seasonally Adjusted Business Applications



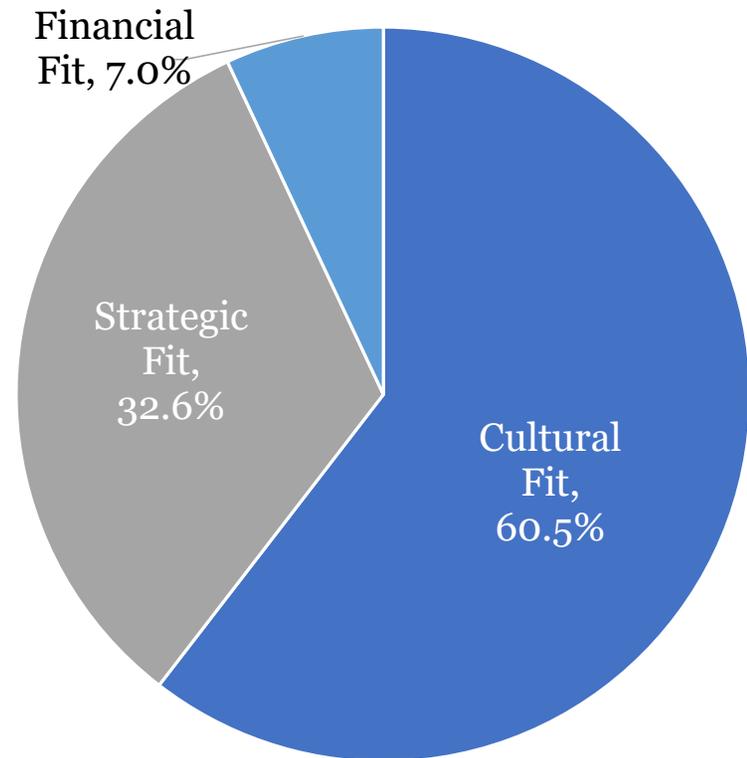
Data Extracted on: March 4, 2024 (12:27 pm) EST

These data are subject to sampling and nonsampling error. For more information see <https://www.census.gov/econ/bfs/technicaldocumentation/methodology.html>



What is the biggest driver of M&A success?

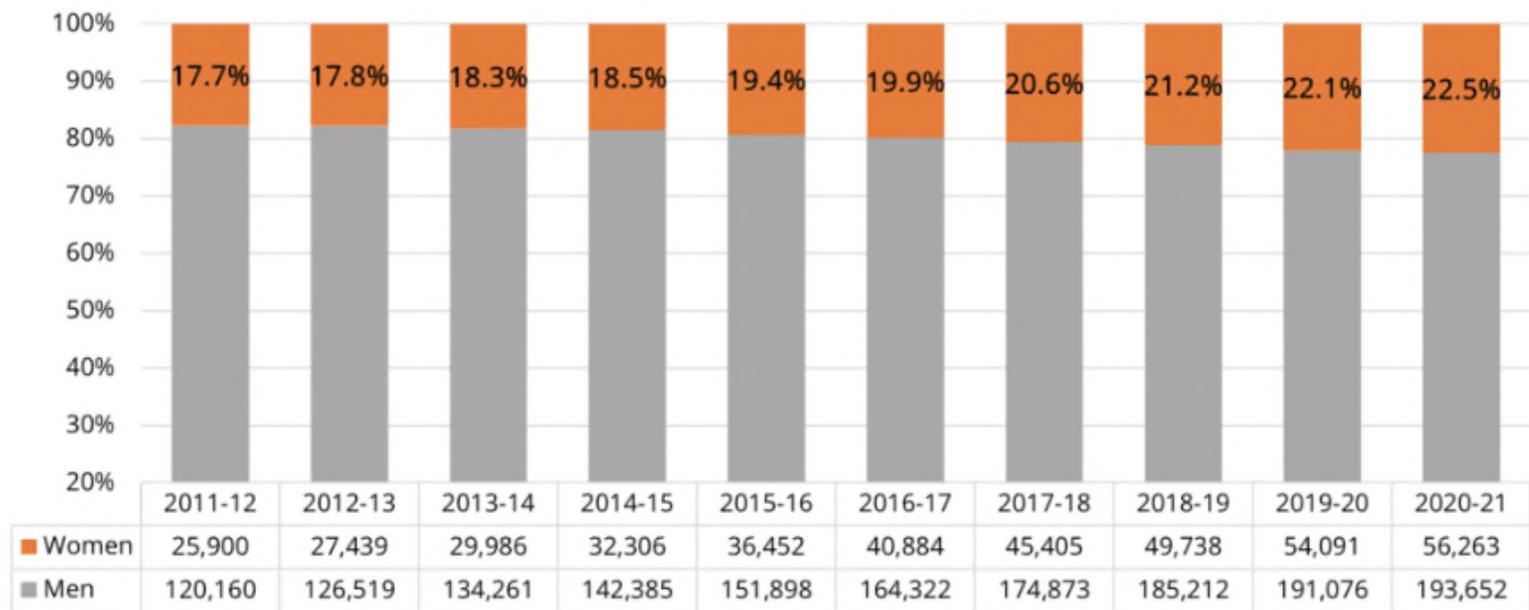
and failure!



**From a next
gen leader who
just left an
environmental
firm to start
his own firm:**

**“It was a \$20 million company.
Always was, always will be, and
there was no interest in leaning in
on tech, innovation, and new ways
to drive growth.”**

Bachelor's Degrees Awarded in Engineering and Computer Sc. by Gender 2011-12 to 2020-21



Source: National Center for Education Statistics (2021) Degrees in computer and information sciences, and degrees in engineering conferred by postsecondary institutions, by level of degree and sex of student: 1964-65 through 2019-20.

Tables 325.35 and 325.45

The New Success Mindset

Bigger ≠ better.

Variable cost talent is everywhere.

The physical and virtual worlds are one.

Digital natives are just that.

The next generation of clients are here.



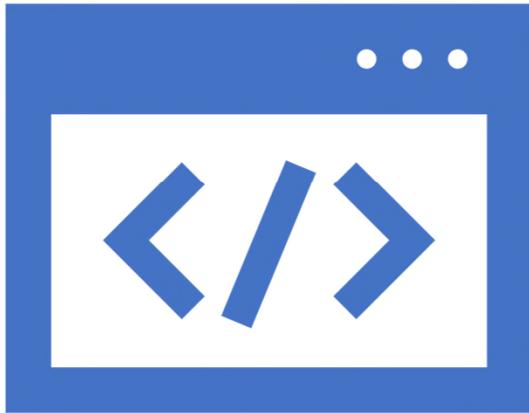


What should you do?

1. Grow big by staying small.
2. Resist one-size-fits-all leadership development programs.
3. Build an incentive compensation plan that rewards the right behavior.
4. Get a Digital Native on your Board of Directors.
5. How would you break your firm?



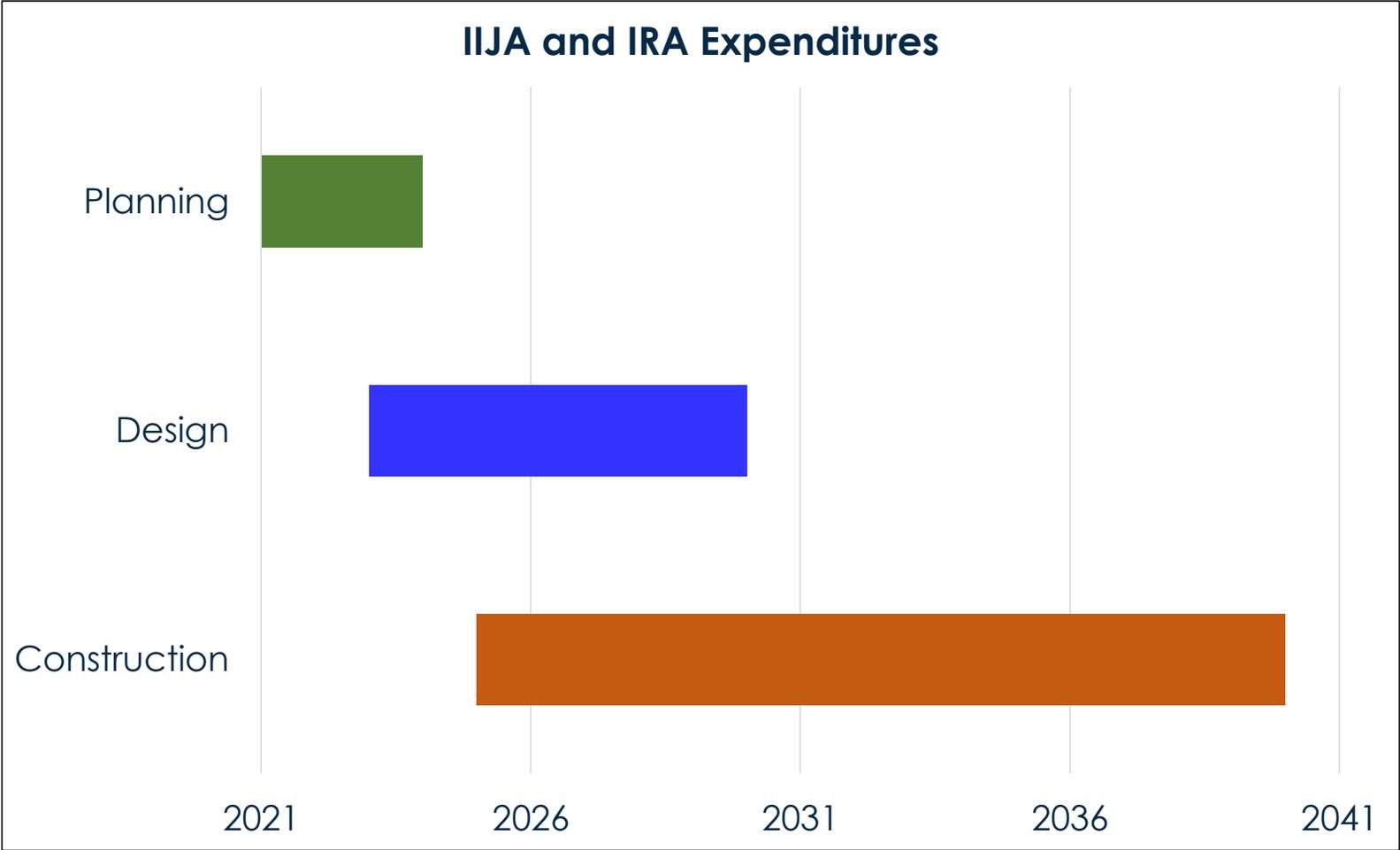
**The Next Recession
Could Change
Everything.**



What if...

- We're on the cusp of global political disruption?
- Rapidly shrinking markets (e.g. office space) fail to find a bottom?
- A bubble of infrastructure spending (e.g. IIJA) ends in 3-5 years?
- Firms in a rapid growth environment have no long-term plan for value creation?

...or the speed of technological innovation outpaces regulation (e.g. quantum computing)?





What should you do?

1. Make strategic decisions in the context of a strategic plan.
2. End that planning retreat with two hours of “What could get in the way?”
3. Consider an Outside Director to your Board of Directors.



Additional Resources



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