

How AI is Transforming the U.S. Public Accounting Industry

- Sean Doyle, AI in Economics, 12/4/2025
- Study done on the Public Accounting Industry and AI's Impact on Worker's.

Personal Motivation

- I am looking to pursue a career in the public accounting industry. I plan on getting my CPA license in the future. With the developments in AI recently, I was curious how AI will impact the public accounting industry in the future.

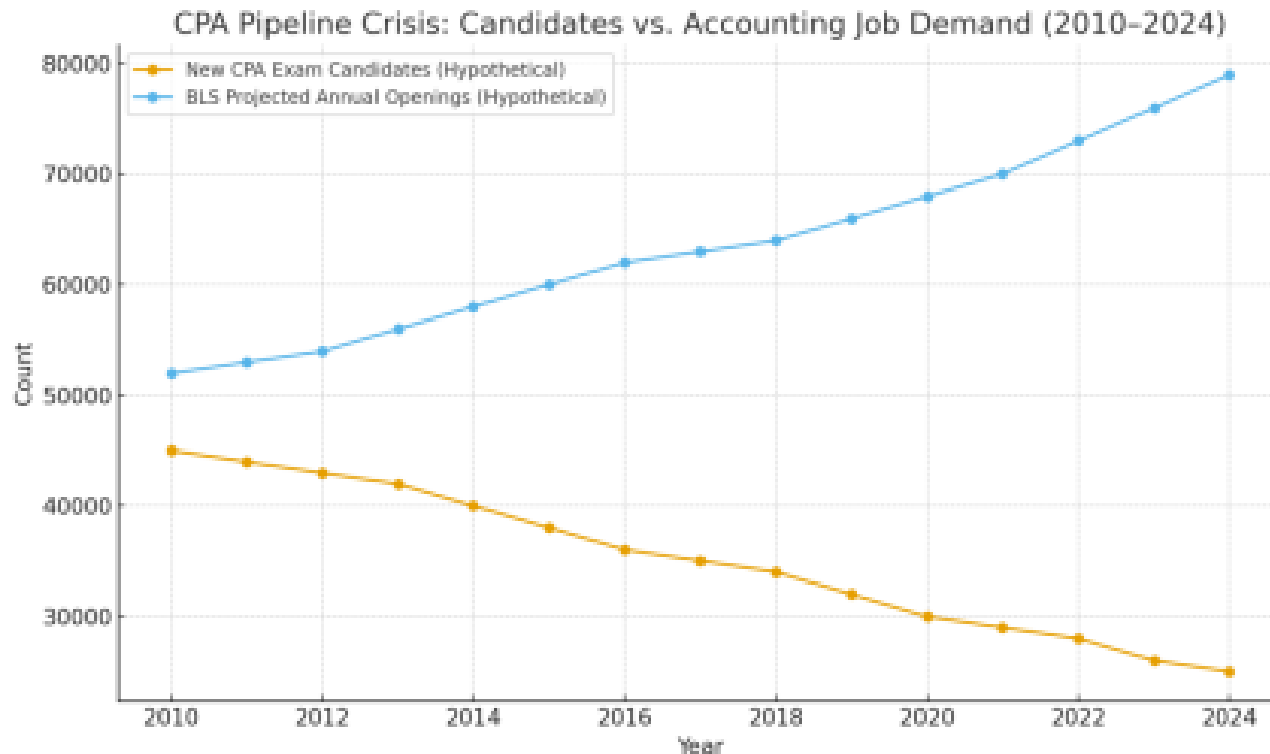
Industry Overview (NAICS 5412)

- The U.S. public accounting industry encompasses audit, tax preparation, consulting, and general assurance and advisory services.
- Major players include the Big 4 Accounting Firms: (Deloitte, EY, PwC, KPMG).
 - Hold dominant share of audit revenue and large presence in advisory + tech-related service lines
- This industry employs over 1.3 million workers in the US, annual GDP of \$1.316 (2024).

Stage of Industry: Mature + Disrupted

- Mature Industry: Stable but low-growth audit market; inelastic demand due to regulation.
- Disruptive Elements: stable demand, constrained labor supply, and increasing reliance on innovation.
- AI pressures have resulted in increased investments to offset structural pressures

Labor Supply Visualization



- Demand estimates for CPA's continues to rise while new CPA Candidates continues to fall.

GenAI Effects on Workers

- Routine audit tasks automated: reconciliation, vouching, document review.
- AI increases demand for analytics, advisory, and system-integration skills.
- Entry-level and early-career jobs now face different tasks and skills.

GenAI Effects on Firms

- Automation leads to lower marginal costs and speeds testing.
- Large firms benefit from high costs of AI -> widens the gap between large firms from everyone else.
- Risks: audit opacity, bias, cybersecurity, compliance challenges.

Opportunities & New Frontiers

- Productivity gains shift human labor toward analytical and judgment-intensive tasks.
- Advisory and analytics service lines expanding.
- AI-first accounting startups entering the market.

Personal Path & Upskilling Plan

- Target roles: audit associate, financial analyst, controller roles.
- Skills: Excel, SQL, Python, GAAP knowledge, AI-assisted audit platforms.
- Steps: courses, certifications, portfolio projects, networking.

Reflection & Takeaways

- AI's effects are uneven but transformative across workers and firms.
- Learned how labor shortages and tech adoption interact in mature industries.
- Research expanded my sense of possible career paths in AI + accounting.