NJ AI TASK FORCE

YOUR FUTURE OF AI

Insights on Generative Artificial Intelligence from 5,000 New Jersey Public Professionals

NOVEMBER 2024

EXECUTIVE SUMMARY

In May and June 2024, New Jersey's Civil Service Commission on behalf of the NJ AI Task Force conducted a survey of the State's public-sector workforce to gauge public professionals' views on generative AI (GenAI) with over 5,000 responding. New Jersey is the first state in the nation to launch a comprehensive survey of its public-sector employees' views on AI. Consistent with the findings, New Jersey is rolling out training in responsible use of artificial intelligence to help its public workers better serve the residents of New Jersey.

KEY FINDINGS

A large majority of respondents are unfamiliar with GenAI tools. Of those surveyed, **88% know "nothing at all" or know "a little" about AI** while only 12% are well-versed in GenAI.

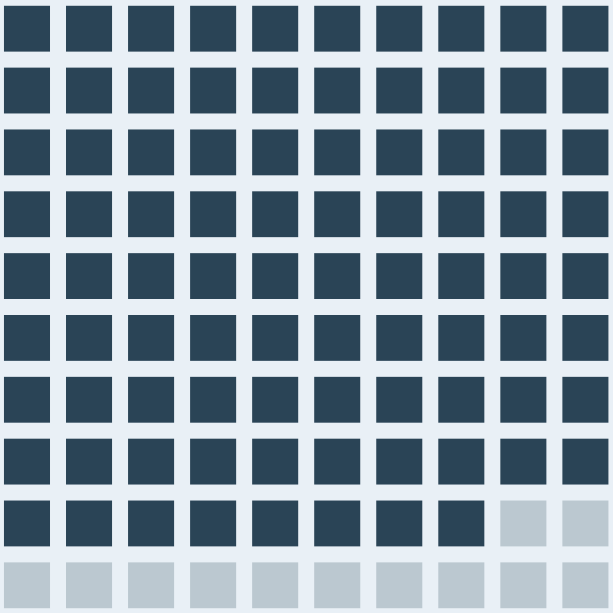
Most respondents do not use GenAI tools at work (79%) or at home (61%). Those who use GenAI primarily use it for writing assistance, coding, and research.

There is a strong interest in learning about GenAI, with 73% of respondents expressing a desire to learn more about how they can use it in their work. Many are interested in understanding its basics, productivity benefits, and ethical, privacy, and security implications.

Among respondents who use GenAI often, **85% believe it can ease their work.** Those knowledgeable about GenAI also display high optimism, with 66% seeing potential benefits.

Two-thirds (67%) of respondents believe GenAI will lead to more positive than negative changes for workers. However, 31% are concerned about keeping up with technological changes, and a minority (25%) fear job displacement looking ahead to the next 3-5 years.

A large majority of respondents are unfamiliar with GenAI tools.



88%

know "nothing at all" or know "a little" about AI

Of those surveyed, 88% know "nothing at all" or know "a little" about AI while only 12% are well-versed in GenAI.

INTRODUCTION

In May and June 2024, New Jersey's Civil Service Commission (CSC) asked New Jersey's public professionals what they see as the greatest opportunities and concerns when it comes to the impact of GenAI on their work, their current use of GenAI tools on the job, and gauged their interest in learning more about artificial intelligence.

Over five thousand people responded to the online survey, the first of its kind in the nation. New Jersey is the first state to launch a comprehensive survey of public-sector employees' knowledge, attitudes and interests around AI.

The survey, which combined multiple choice and free response questions, is designed to inform the rollout of statewide AI training for public professionals as required under Executive Order 346, in which the state committed to help public sector professionals learn to use generative AI to improve the delivery of services to residents, businesses, and institutions.

Most respondents do not use GenAI tools.

Those who use GenAI primarily use it for writing assistance, coding, and research.

WHAT WE HEARD

1. Respondents are Unfamiliar with Generative AI

A majority of respondents are relatively unfamiliar with generative AI (GenAI) tools. Overall, **34% of respondents say they know "nothing at all" and 54% know "a little."** Only a small segment (12%) of the respondents say they know “a lot” about GenAI tools.

2. Few Respondents Use GenAI at Work or at Home

Most respondents report that they do not currently use GenAI tools; **79% say they have never used GenAI at work, and 61% say they have never used them at home.** Those who do use these tools in their work primarily use them for writing assistance, coding assistance, and to help with research. In other words, while many respondents are aware of GenAI technology, the vast majority are not using these tools as part of their work.

3. Respondents Want to Learn More

Three out of four respondents (73%) said they were very or somewhat interested in learning more about using GenAI tools at work. Respondents were most interested in understanding the basics of GenAI, learning how it can boost productivity, and grasping the implications for ethics, privacy, and security. There is also a keen interest in how GenAI can be used for analyzing and creating written content, and for data analysis tasks.

4. Those Who Use GenAI are the Most Optimistic

Optimism is high among respondents who already use GenAI as part of their work. Looking at those respondents who often use

There is a strong interest in learning about GenAI

Expressed a desire to learn more about how they can use it in their work.

Many are interested in understanding:

- its basics
- productivity benefits, and
- ethical, privacy, and security implications

GenAI tools as part of their work, **85% believe that GenAI tools can make their work easier,** and only 1% think they will make their work harder. Similarly, for respondents who say they know "a lot" about GenAI, **66% believe that these tools can make their work easier, a**nd only 10% think that GenAI tools will make their work harder.

5. The More Positive the Outlook, the Greater the Desire to Learn

Among respondents with a positive view of GenAI, **a large majority (92%) were very or somewhat interested in learning more about how to use GenAI in their work.** Among respondents with a positive view of GenAI, a majority (60%) believe that GenAI tools and platforms can make their work easier. Among those with a negative view of GenAI, a majority (57%) reported that they were not at all or not too interested in learning more about how to use GenAI in their work. A plurality (49%) of respondents with a negative view of GenAI say they don't know whether GenAI tools and platforms can make their work easier, harder, or neither.

6. Respondents are Optimistic about Using GenAI at Work

Two out of three (67%) believe that the adoption of GenAI technologies will have a more positive than negative effect, creating new ways of working and giving workers opportunities to get new skills to work with GenAI. Many (44%) anticipate that GenAI could make their work easier, and among those expecting that GenAI will change their day-to-day tasks, 59% predict that these changes will be mostly positive. Respondents see increased productivity and enhanced capabilities in analyzing and creating written content as well as conducting data analysis tasks.

Among respondents who use GenAI often, 85% believe it can ease their work.

7. A Minority are Concerned They Will Not Keep Up and about Privacy

When asked to look ahead to the next 3-5 years, **31% of respondents say they are somewhat or very concerned that they won't be able to keep up with changes at work because of GenAI.** Further, one in four (25%) respondents are somewhat or very concerned that GenAI will replace their jobs within the next 3-5 years. In response to an open-ended question asking respondents their concerns about GenAI, many highlighted challenges related to privacy, data security, and the ethical implications of using GenAI tools.

8. Those Who Use AI Less are Unsure about its Uses

Not surprisingly, among those who rarely or never use GenAI in their work, they do not understand its uses. **Only 40% believe GenAI tools can make their work easier, 5% think they will make their work harder, and 39% are uncertain.** Likewise, among respondents who say they know "nothing at all" about GenAI, most (62%) are uncertain about the impact of GenAI tools on their work.

A majority of responsdents believe GenAI will lead to more positive than negative changes for workers.

67%

of respondents believe GenAI will lead to more positive than negative changes for workers.

However, 31% are concerned about keeping up with technological changes, and a minority (25%) fear job displacement looking ahead to the next 3-5 years.

TAKEAWAYS FOR STATE LEADERSHIP

If New Jersey wants public professionals to use AI responsibly in ways that support their productivity and help them to deliver effective policies and services, New Jersey should roll out training to the State's workforce, keeping in mind the need to:

1. Provide basic training for novices and more advanced training for those with more experience.

Given that the vast majority (88%) of respondents say they know only a little or nothing at all about GenAI tools, **there is a need for basic AI training to familiarize public professionals with fundamental concepts of GenAI,** its applications in public service, and the ethical considerations involved.

For those who already have some experience or use GenAI frequently, more advanced training should delve deeper into specialized applications, such as data analysis and coding assistance. A tiered approach can ensure that all public professionals, regardless of their current knowledge level, can effectively leverage GenAI tools to enhance their productivity and service delivery.

2. Offer multiple modes and methods of training.

There was equal interest in live online learning (37%) and recorded online learning (37%) with a smaller group asking for in-person learning (22%). The state should offer various formats to accommodate different learning styles and schedules, including combining live interactive sessions with self-paced recorded modules, and in-person workshops.

3. Training should empower public servants to feel that they can use GenAI and won't be left behind.

To address varying attitudes towards AI, **training programs should build confidence and competence among public professionals by highlighting success stories and case studies** that demonstrate the tangible benefits of GenAI in public service. By empowering employees with the necessary skills and knowledge, they will be better equipped to embrace GenAI technologies, reducing anxiety and fostering a culture of innovation and adaptability.

4. Training may have to overcome skepticism

Training should provide clear, evidence-based information on the reliability, security, and ethical use of GenAI. Engaging skeptics through testimonials from peers, pilot projects, and interactive Q&A sessions with GenAI experts can help demystify the technology and build trust. It is crucial to highlight how GenAI can enhance, rather than replace, the roles of public servants, ensuring that they see the technology as a tool for empowerment rather than a threat to their job security.

5. Addressing privacy, security, and ethics concerns

Training should inform public servants about critical issues to ensure that use of GenAI complies with the State's legal and regulatory standards. Training should include guidelines on handling sensitive information, maintaining data confidentiality, and implementing robust security measures to protect against potential breaches and misuse.

6. Encouraging continuous learning and adaptation

Given the rapid pace of technological advancements in AI, **it is essential for training programs to promote a culture of continuous learning and adaptation.** Encouraging a mindset of lifelong learning will help ensure that the workforce remains agile and capable of leveraging new tools and innovations as they emerge, ultimately improving the efficiency and effectiveness of public service delivery. Continuous learning is also important to address the concerns held by a minority of respondents who fear that they won't be able to keep up with changes at work or that GenAI will replace jobs.

APPENDIX

Methodology

The 33-question survey was conducted online in English using a non-probability sample. The findings represent the opinions of respondents based on self-reported data and are not generalizable to a larger population.

To view the full list of survey questions, click here. New Jersey encourages other states to reuse and adapt these questions to gauge their public servants' views on GenAI. We invite states to share the results of their surveys with us.

The survey was distributed via email to 63,617 respondents via the NJ Direct mailing list, and participation was voluntary. The survey received 5,158 responses. The survey launched on May 31st and closed on June 20th, 2024.

The survey was drafted by the John J. Heldrich Center for Workforce Development at Rutgers, The State University of New Jersey, in collaboration with New Jersey's Office of Innovation. It was administered by the New Jersey Civil Service Commission Center for Learning and Improving Performance (CLIP).

SURVEY QUESTIONS AND RESULTS

1. Department/Agency (e.g. Department of Transportation):

Open-ended responses not released in this report.

2. What is your job title? (specify Civil Service Title):

Open-ended responses not released in this report.

3. Does your work involve any of the following tasks? Check all that apply (n=5,109).

Manual or physical labor	921
Managing others	2,359
Working directly with residents, clients, or customers	3,164
Data processing or analysis	3,470
None of the above	393

4. Overall, how much would you say you know about Generative AI tools or platforms, such as ChatGPT, Claude or Gemini? (n=5,120)

A lot	A little	Nothing at all
12%	54%	34%

5. How often, if ever, do you use Generative AI tools or platforms at home, such as ChatGPT, Claude, Gemini, or others? (n=5,116)

Daily	Weekly	Once or twice a month	Less than once a month	Never
6%	9%	10%	14%	61%

6. If you wish, please tell us more about how you currently use GenAI tools or platforms at home.

Open-ended responses not released in this report.

7. How often, if ever, do you use Generative AI tools or platforms in your work, such as ChatGPT, Claude, Gemini, or others? (n=5,088)

Daily	Weekly	Once or twice a month	Less than once a month	Never
3%	5%	5%	7%	79%

8. What is the primary reason you are not using, or rarely using, GenAI at work? (n=4,008)

My department or agency prohibits the use of GenAI	3%
I don't know if I'm allowed to use GenAI	22%
I don't know how to use GenAI	18%
I haven't heard of GenAI until now	14%
I don't use a computer or have access to technology in my work	1%
I do not believe that GenAI applies to my work	26%
Some other reason	16%

9. Do you use GenAI tools or platforms in your work as an assistive technology for a disability? (n=1,037)

No	Not applicable, I don't have a disability	Yes	Don't know
57%	31%	7%	4%

10. For what tasks do you use GenAI tools or platforms in your work? Check all that apply. (n=972)

Creating written content (such as drafting, brainstorming, or editing)	695
Analyzing written content (such as summarizing, labeling, or researching)	521
For conversational purpose (such as role playing or tutoring)	123
Software coding tasks (such as code creation, testing or error detection)	189
Data analysis tasks (such as organizing and drawing insights from data sets)	251

For image recognition or generation	136
For audio summarization, translation, or analysis	141
Something else (specify in the comment box below)	146
None of the above	1

11. If you wish, please tell us more about how you currently use GenAI tools or platforms.

Open-ended responses not released in this report.

12. How interested are you in learning more about how to use GenAI in your work? (n=5,041)

Very interested	Somewhat interested	Not too interested	Not at all interested
41%	34%	13%	12%

13. If you wish, please tell us more about your interest in learning more about GenAI.

Open-ended responses not released in this report.

14. In a few words, why are you not interested in learning more about how to use GenAI in your work?

Open-ended responses not released in this report.

15. When it comes to learning more about how to use GenAI in your work, which of the following do you prefer (n=3,687)

Live, online learning	Recorded, online learning	In-person learning	Something else (specify in comment box below)
37%	37%	22%	4%

16. If you selected (Something else), please specify in the comment box below the learning format you prefer.

Open-ended responses not released in this report.

17. When it comes to using GenAI in your work, which of the following tasks do you most want to learn about? (n=3,609)

Creating written content (such as drafting, brainstorming, or editing)	2417
Analyzing written content (such as summarizing, labeling, or researching)	2468
For conversational purpose (such as role playing or tutoring)	798
Software coding tasks (such as code creation, testing or error detection)	947
Data analysis tasks (such as organizing and drawing insights from data sets)	2193
For image recognition or generation	889
For audio summarization, translation, or analysis	1310
Something else (specify in the comment box below)	172
None of the above	0

18. If you selected (Something else), please specify in the comment box below the learning format you prefer.

Open-ended responses not released in this report.

19. Whether or not you currently use GenAI tools or platforms in your work now, do you think Generative AI tools or platforms could make your work easier, make your work harder, or neither? (n=4,892)

Easier	Don't know	Neither	Harder
44%	37%	15%	5%

20. In a few words... why do you think GenAI tools or platforms could make your work harder?

Open-ended responses not released in this report.

21. How likely do you think it is that GenAI tools or platforms will change the day-to-day tasks you perform in your work (n=4,870)

Very likely	Somewhat likely	Not too likely	Not at all likely	Don't know
23%	31%	13%	9%	24%

22. Do you think those changes will be mostly positive, mostly negative, or neither? (n=3,269)

Mostly positive	Mostly negative	Neither	Don't know
59%	7%	12%	22%

23. How concerned are you that you won't be able to keep up with changes at work because of GenAI in the next 3-5 years (n=4,837)

Not too concerned	Not at all concerned	Somewhat concerned	Very concerned
43%	28%	22%	7%

24. How concerned are you that GenAI will replace your job in the next 3-5 years? (n=4,833)

Not too concerned	Not at all concerned	Somewhat concerned	Very concerned
38%	37%	16%	9%

25. And thinking about other concerns that public sector workers may or may not have when using GenAI in their work ...which one of the following is most important and should be addressed by State government? (n=4,707)

Protecting your privacy and/or the privacy of others	48%
Minimizing cybersecurity incidents	18%
Handling ethical or moral issues	15%
Eliminating new biases or existing biases in data	10%
Something else (specify in the comment box below)	9%

26. If you selected (Something else), please in the comment box below provide concerns not previously mentioned.

Open-ended responses not released in this report.

27. Which comes closest to your own views, even if neither is exactly right? (n=4,702)

The adoption of GenAI technologies will be mostly positive, creating new ways of working, giving workers opportunities to get new skills to work with GenAI.	**67%**
The adoption of GenAI technologies will be mostly negative, creating significant skill gaps, leaving workers behind who are not trained to work with GenAI.	**33%**

28. If you wish, please tell us more about your concerns when it comes to GenAI.

Open-ended responses not released in this report.

29. What is your age range? (n=4,711)

18-24	25-29	30-39	40-49	50-64	65
2%	6%	19%	29%	37%	6%

30. What is your highest level of education? (n=4,720)

Bachelor's degree (four-year degree)	41%
Graduate or professional degree	37%
Some college credit, but no degree	10%
Associate degree (two-year degree)	6%
High School Graduate	4%
GED or High School Equivalency	1%
9th - 12th grade (no high school diploma)	<1%

31. Would you describe yourself as a man, woman, or some other way (n=4,705)

Woman	Man	Some other way
61%	38%	1%

32. Are you of Hispanic, Latino, or Spanish origin? (n=4,691)

No	Yes
87%	13%

33. Do you consider yourself to be one or more of the following? (n=4,527)

White	2,970
Black or African-American	991
American Indian or Alaska Native	68
Asian or Asian American	403
Native Hawaiian or Pacific Islander	27
Some other race (specify in the comment box below)	262