

# UC Office of the President

## Student Policy Research Papers

### **Title**

Measuring Public Attitudes Towards Artificial Intelligence (AI) in California's Public K-12 Education System

### **Permalink**

<https://escholarship.org/uc/item/58d4s081>

### **Author**

Lopez, Jaylynn

### **Publication Date**

2024-07-01

### **Data Availability**

The data associated with this publication are available upon request.

UC Center Sacramento

**Measuring Public Attitudes Towards Artificial Intelligence (AI)  
in California's Public K-12 Education System**

Jaylynn Isabelle Lopez

POL 195: Policy Analysis in California

Dr. Paige Pellaton

19 August 2024

## **Abstract**

Artificial intelligence (AI) is an emerging technology in today's society. Each day, there are advancements in its development and uses. With this, legislators have also made progress on related legislation, beginning with Governor Newsom's AI Executive Order in 2023. A particular area of breakthrough is public K-12 (kindergarten through 12th grade) education. Despite legislation, research, and polls, public attitudes remain understudied. The focus of this study is the relationship between public attitude, income, and educational attainment in connection with AI in California's public K-12 system. My hypothesis was that higher income and educational attainment were indicators of more positive and accepting opinions towards AI in K-12. For this research project, I created and conducted an Amazon Mechanical Turk (MTurk) survey, which was deployed in California and collected 198 responses. Subsequently, I utilized Microsoft Excel to analyze the results and identified trends in public sentiment towards AI. In my analyses, I found that my income hypothesis was mostly satisfied, with more positive opinions resulting from higher income brackets. The exception to this was the lowest income bracket, which expressed greater support than the bracket above it. I also found that my educational attainment hypothesis was satisfied. More positive support was recorded among respondents with higher educational attainment. As this survey reached California constituents using Amazon MTurk, limitations exist in the sample size of respondents'. Collected data may serve as inspiration for further research on public attitudes towards AI in education and other areas of life.

**Keywords:** artificial intelligence (AI), California, educational attainment, income, K-12, legislators, public education, public opinion, respondents, survey

## **Introduction**

Technology is a field that continues to advance across the world. One related topic that has risen in popularity is artificial intelligence, or AI, along with its prevalence in research and policy. This is particularly true as it pertains to California, where 39 Assembly Bills and 24 Senate Bills during the 2023-24 legislative session involved artificial intelligence- up from 8 AI Assembly Bills and 5 AI Senate Bills from the 2021-22 session. While the legislature has seen an increase in AI, one may wonder about the other job sectors and areas of life where it is gaining traction, as well as the public's perception of advancements.

The focus of this research paper is to evaluate, broadly, what individuals' opinions towards the use of artificial intelligence in California's public education system are. This project aims to better understand Californians' opinions about AI's integration in public K-12 through a series of survey questions crafted to answer the following research question: "Currently, does public opinion towards the use of artificial intelligence in public education vary based on the income and educational attainment of individuals in California?" To answer this question, I analyze survey results where respondents provided their demographic information, as well as rated their awareness and attitudes towards AI in California's K-12 education. I find that most respondents rated themselves as having a high awareness of AI in California. I also find that both income and educational attainment had substantial impacts on respondents' attitudes towards AI being implemented in the K-12 system. I conclude with a discussion on the different attitudes and what they mean for future policy, implementation, and public efforts.

### **Context and Significance**

The state of California is considered to be a global leader in AI innovation and delivery, having enacted policies and signed orders directed at harnessing the new form of technology as a tool in all areas of life (Executive Order N-12-23). Daily uses of AI have expanded in recent years, from facial recognition login on devices to home security systems. While AI powering these

functions has mostly become normalized, implementation in other fields such as education is still underway. Executive Order N-12-23 was signed by Governor Gavin Newsom in September 2023 to improve the state's knowledge and application of AI in the workforce (CA.gov). Recently, the Los Angeles County Office of Education established a task force to effectively implement AI in education, focusing on responsible use and student well-being (LACOE). Although the state may be paving the way for AI's use to expand, the public's knowledge and opinions of these efforts remains under-measured. Furthermore, the influence of differing factors such as individuals' socioeconomic status and educational attainment is not widely known. This is significant because students are the future workforce of the state. As their learning methods are impacted by AI, and the workforce changes to accommodate it, the state's future is also affected. Whether changes to education occur depends on the voices of California's public.

### **Literature Review**

Experimentation with AI is occurring in all aspects of education, with research being conducted on aspects specific to students, and others geared towards teachers. One particular platform that is often associated with AI and education is Chat Generative Pre-trained Transformer, or ChatGPT. For the purpose of this project, I conferred with the technology about itself. When I told ChatGPT that I was interested in learning more about it, it described its training as “processing vast amounts of text from books, websites, and other sources”, in order to “provide information and assistance on many subjects” (*ChatGPT*). The platform is commonly used in high school and higher education for research assistance, homework help, writing support, study aid, learning enhancement, and time management (*ChatGPT*). Reasonably, one may wonder how the field of education has changed since ChatGPT's release and the influence it has had on academic integrity.

Lee et al. studied cheating in high schools across the United States through a series of surveys occurring six months prior to and after ChatGPT's release in November 2022. The high

school students who participated in the surveys were asked to rate the frequency of individual behaviors, such as collaborating with peers when prohibited or asking for extensions with false excuses (Lee et al.). Results indicated that students' behaviors did not change significantly after ChatGPT was released. They were relatively stable, with changes occurring to the types of cheating- particularly social cheating. A significant difference was found in the use of digital devices pre and post ChatGPT's release, with an approximate 14% increase in charter high schools, 8% in public high schools, and 5% in private high schools (Lee et al.). This study evaluated one of the greatest concerns relating to AI in school: plagiarism. The results partially validated these concerns, with some identified increases in cheating. To combat this, task forces, such as LACOE's, and researchers are studying ways that can support students and teachers alike as AI's integration is pending. Some have also conducted research to identify teacher opinions towards AI's implementation in their classrooms.

In November 2023, Mogavi et al., published their qualitative study in which they collected "adopters" (including teachers and researchers) uses and perceptions of ChatGPT. They accomplished this by analyzing adopters' content on social media platforms including Twitter (now X), YouTube, LinkedIn, and Reddit. Through their content analysis, they gained insight on users' data to identify trends in uses and perceptions. Results of this study were mixed perceptions: about 31% exclusively positive views, about 17% exclusively negative views, about 37% mixed views, and about 15% maintaining neutral views. Researchers identified three major aspects of their perceptions: productivity, efficiency, and ethics (Mogavi et al.). Reasons behind these views are also mixed, however, with researchers from the University of Valencia presenting different justification for teachers' opinions.

Rahimi and Sevilla-Pavon from the University of Valencia studied Iranian language teachers' readiness to implement AI in their English lectures in Iran. Through their bisymmetric

analysis and structural equation modeling, they found that levels of cognition contribute to teachers' readiness, which they tie to confidence levels (Rahimi and Sevilla-Pavon). In a study published in UC Merced's *Proceedings of the Annual Meeting of the Cognitive Science Society*, future elementary and middle school teachers' acceptability of AI usage in classrooms were evaluated. To measure this, Cojean and Martin sent a questionnaire to future French teachers via the Internet, and received 406 responses. Their results indicated acceptability was based on tasks. Future elementary school teachers were more willing to accept the technology, particularly for course content, rather than student interactions. Alternatively, future middle school teachers' responses demonstrated more willingness towards AI's acceptance for tasks of high added value, such as measuring students' performance in subject areas (Cojean and Martin). In conjunction with research to gauge AI's uses in education and its approval rates, some teams are working to improve the narrative around AI's integration altogether.

While more efforts are being made to better understand the nature of AI in education, gaps continue to exist in approval rates for adaptations to progress. Wang and Lester published their article about AI literacy in the *International Journal of Artificial Intelligence in Education* in 2023. They defined AI literacy as “the ability to readily engage with AI by leveraging AI tools, systems, and frameworks to effectively and ethically solve problems in a wide-range of sociocultural contexts” (Wang and Lester). They called for the implementation of AI literacy in education learning; STEM, language arts, and social sciences; teachers' professional development; and assessment. Key components in accomplishing this, per the researchers, include “understanding AI capabilities”, “utilizing AI for problem solving”, and “applying AI in sociocultural contexts” , with suggestions for elementary, middle, and high school students (Wang and Lester). Additionally, they noted a concern regarding AI in education: adoption and implementation occurring prior to educational research (Wang and Lester). Although valid, there are other gaps in previous research

that may raise alarms, one of which is the public's opinion. As daily life adapts to include AI, shifts among industries and the essence of the workforce is modified. Thus, it is important to understand the population's attitudes towards the technology. Specifically, it is necessary that Californians' opinions be collected and analyzed, as the diverse state is recognized as a leader in AI innovation and research. Acknowledging the state's distinct constituency by focusing on the influence of factors of disadvantage, such as income and education, are especially crucial in analyzing and interpreting citizens' points of view.

### **Hypotheses**

I hypothesize that individuals with greater income and higher educational attainment rates would have more positive opinions towards the use of AI in education than individuals who rank lower in these areas.

Individuals with higher income may be employed in higher-earning jobs that utilize AI in the workplace. Alternatively, individuals with lower income may work in lower-earning jobs where they either have less advanced technology or none at all. This may be caused by higher-paying employers or individuals in the community having the financial resources and networks to explore and experiment with the AI industry more than those who pay and earn less, ultimately impacting the implementation of AI in their workplace. Individuals in lower-paying jobs may have less positive opinions towards AI in education because they may have less exposure to the technology or negative experiences with it, such as wage cuts and/or job loss. Additionally, they may have less opportunities to learn about AI if schools and community facilities do not have the financial means to test it in day-to-day functions.

Today, educational attainment impacts the type of jobs available to individuals. Thus, lower educational attainment, such as high school diplomas, may only permit employment in lower-paying jobs, such as labor, and less usage of AI. However, higher educational attainment,



such as doctoral degrees, offer more opportunities for professions and networks of individuals that study or use AI more often. As a result, educational attainment influences individuals' professional networks and employment, which impacts their level of usage and knowledge of AI in daily functions, and leads to developed opinions towards its implementation in other areas, such as K-12 education.

## **Research Design and Methods**

### ***Measurement of Variables***

Respondents' knowledge and usage of artificial intelligence in their daily life are the independent variables of this study. These two variables were selected because every individual has different personal experiences with the technology, which influence their opinions of it, as experiences shape our opinions in other aspects of daily life. The dependent variable that is affected by these independent variables is their opinion towards the use of AI in K-8, high school, and K-12 education. These variables were chosen to compare respondents' attitudes towards AI in different grades and the system overall. Both independent variables and the dependent variable were measured by a series of survey questions tailored to identify the public's level of informedness and experiences with AI, and how they influence their overall opinion of it and its implementation in public schools. Respondents of my Amazon MTurk survey had the opportunity to select from a range of multiple choice answers for each question.

Two confounding variables that may influence the relationship between independent and dependent variables include respondents' employment sector and their professional networks, which were also measured in the survey by a range of responses. These variables play a role in individuals' ability to use or discuss AI at work, subsequently impacting their understanding and opinions towards AI. Individuals employed in the business or technology sectors may have higher levels of usage and knowledge about AI than those employed in customer service. Networks may

also vary as a result of colleagues' exposure to and understanding of AI.

### ***Analysis and Design Structure***

This was a cross-sectional large-n study because it aimed to find larger systematic patterns within participant responses. Data was collected through a 32-question online survey using Amazon's Mechanical Turk (MTurk), with California residents serving as the units of analysis. Twenty-one of the questions were related to demographics, while the other eleven were focused on AI (*See Appendix A*). The first few questions of the AI question block provided respondents with background information on the technology and established a common knowledge base. This survey was fielded for a week during the summer of 2024 and examined demographics, as well as levels of use and knowledge of AI during a single point in time. These levels were measured with the Likert-Type Scale (Vagias 2006).

### ***Variable Relationships***

The primary relationships of my study were those between respondents' informedness and usage of AI and their support for its implementation in public education. To better understand these, I also analyzed the relationship between respondents' sentiments, their job sector, and AI's relevance to their professional networks. The relationships specific to my research question were those between income and support levels, as well as the ones between education and support levels. In my survey, I asked three different questions to gauge public attitude towards AI in education, each focusing on different grades: K-8, high school, and K-12.

My first step was downloading my data from Qualtrics, the platform used to create the survey. To better interact with the data, I uploaded it to Microsoft Excel in both numerical and text forms. After creating separate pages for each specific data set, I organized, tallied, and found the percentages for each set. Following the calculation of the percentages, I created charts to display my findings.

## **Results**

### ***Demographics and Common Knowledge Base Findings***

Demographics questions were in the first segment of my survey. 71% of respondents identified as male, while 29% identified as female. Most were between the ages of 25 and 35 (61%). 84% of all respondents were married. In terms of employment, 62% were paid employees, and 36% were self-employed.

Other questions inquired about income, education, and political party affiliation. In the second segment, respondents were asked AI-related questions. The purpose of the first three questions was to establish a common knowledge base and gather information on respondents' knowledge of AI, which included questions and background information on the technology, Governor Newsom's AI Executive Order, and California Assembly Bill 2885 (AB-2885).

When analyzing respondents' familiarity with artificial intelligence and popular platforms such as ChatGPT, Gemini, and Microsoft Copilot, I found that the most selected response on a five-point scale from "Not at all familiar" to "Extremely familiar" was option four: "Moderately familiar" (34%). 27% of respondents selected option three ("Somewhat familiar") and 25% selected option five ("Extremely familiar").

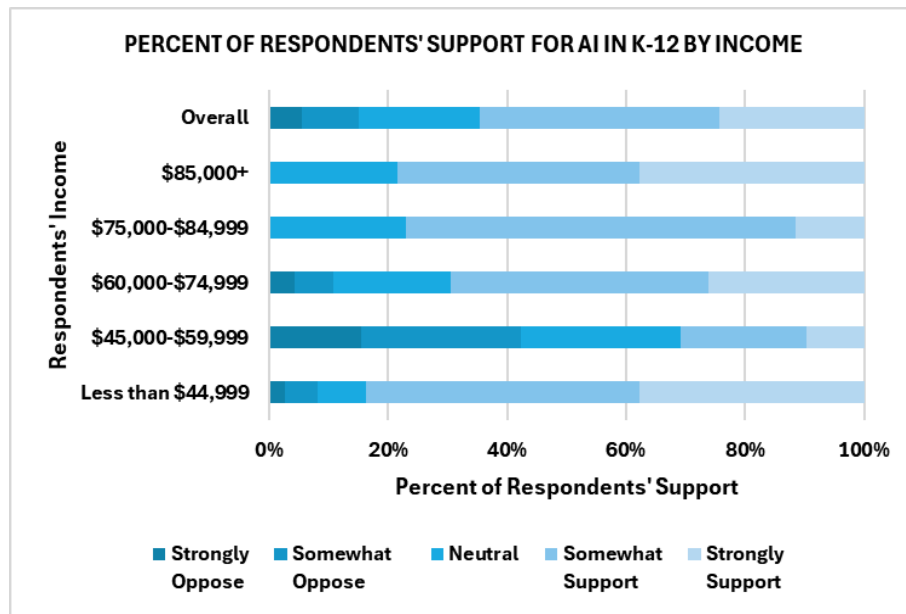
I found that the most selected response for asking support of Executive Order N-12-23 was "Somewhat support" (42%). This was option four on a five-point scale of "Strongly oppose" to "Strongly support". The second most selected response was "Strongly support" (23%). Overall, 65% of respondents expressed support for Executive Order N-12-23, while 20% expressed opposition, and 16% did not support or oppose it.

The final common knowledge base question I asked was respondents' familiarity with AB-2885 prior to participating in the survey. When analyzing the data, I found that the fourth option on the five-point scale was the most selected, with 37% of respondents selecting it:

“Moderately familiar”. The percentage of response selection was similar to that of the AI familiarity question, with 27% of respondents selecting “Somewhat familiar” and 21% selecting “Extremely familiar”.

In addition to this data on informedness, I analyzed respondents’ usage of AI in and outside of their workplace. Overall, 38% of respondents reported using AI daily in their jobs, 32% use it weekly, and 19% use it monthly. In this data, the percentage of respondents decreased as frequency decreased. When looking at “Monthly”, “Weekly”, and “Daily” data, this trend is the opposite for AI usage in personal life. “Monthly” was the most selected response: 37%. According to my data, 30% of respondents use AI in their personal life on a weekly basis, and 22% use it on a daily basis. The trend in this data was an increase in the percentage of respondents as frequency decreased.

***Income Findings***



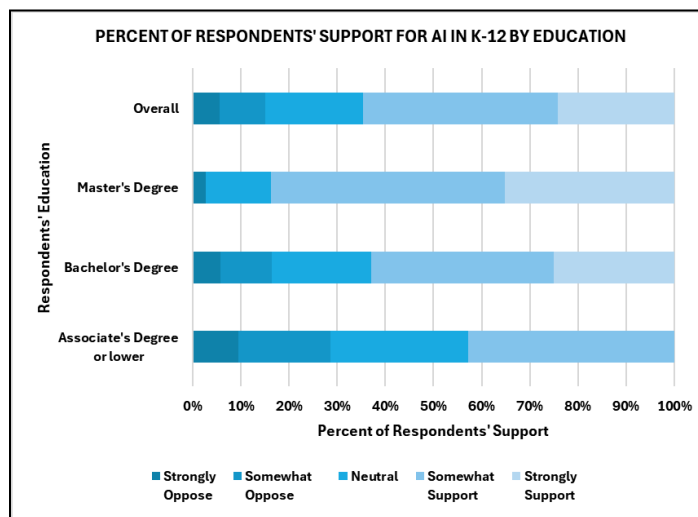
*Figure 1. Support for AI in K-12 by respondents’ income. Data Source: Amazon MTurk Survey*

Overall, 57% of respondents support AI in K-8 education and 65% expressed support for AI in high school and K-12. 20% of respondents are “Neutral” towards AI being implemented in K-12, and 15% expressed opposition towards this.

When I analyzed the percent of respondents’ support of AI in K-12, I found that the most

selected response across all income brackets was “Somewhat support” (Figure 1). The lowest income bracket (less than \$44,999) was the most supportive, with 84% support. 46% of respondents in this income bracket were “Somewhat supportive” and 38% were “Strongly supportive”. The income bracket that was the least supportive was the second lowest income bracket, with 31% support. 21% of these respondents were “Somewhat supportive” and 10% were “Strongly supportive”.

### ***Educational Attainment Findings***



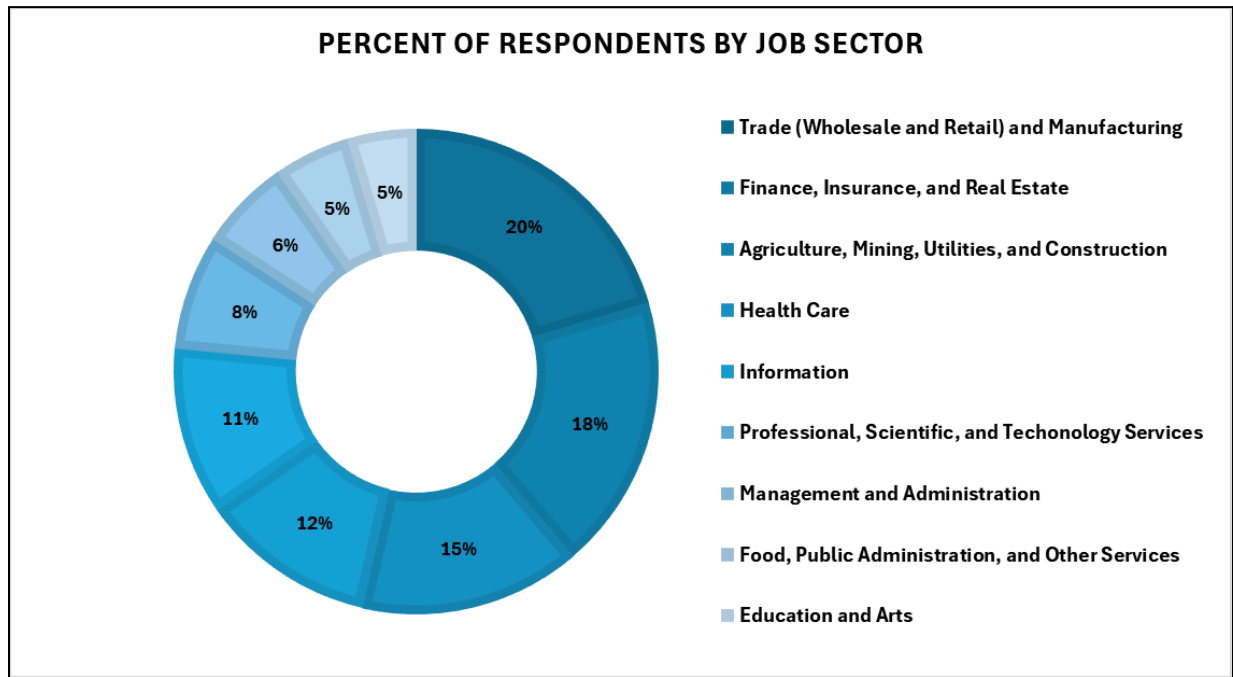
*Figure 2. Support for AI in K-12 by respondents' education. Data Source: Amazon MTurk Survey*

When I analyzed respondents' support for AI in K-12, I found that “Somewhat support” was the most selected response across all educational attainments. Master's Degree holders were the most supportive, with 84% expressing support. Per Figure 2, 49% were “Somewhat supportive”, while 35% were “Strongly supportive”. 45% of Bachelor's Degree holders were supportive, and 43% of those with an Associate's Degree or lower were also supportive.

After analyzing percent of respondents' support for AI in K-8, I found that 81% of Master's Degree holders expressed support. 55% of Bachelor's Degree holders are also supportive of AI in K-8. The least supportive group was respondents with an Associate's Degree or lower, who expressed 24% support. In terms of support for AI in high school, I found that 76% of Master's

Degree holders expressed support. I also found that 67% of Bachelor's Degree holders are supportive, in addition to 33% of respondents with an Associate's Degree or lower.

**Confounding Variable Findings**



**Figure 3.** Support for AI in K-12 by respondents’ education. *Data Source: Amazon MTurk Survey*

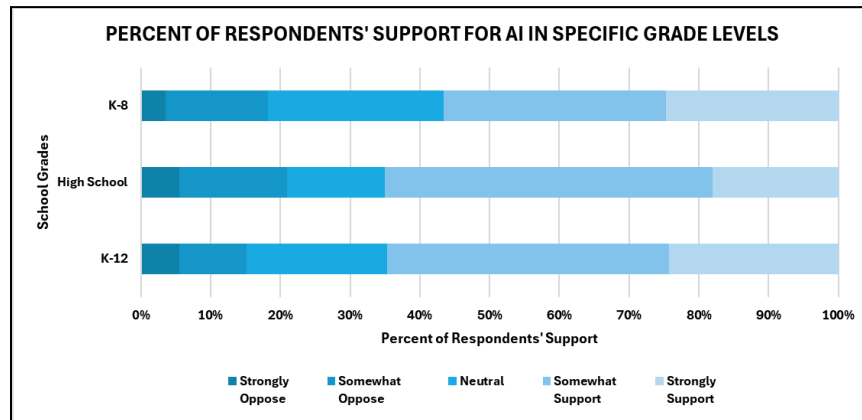
To better understand respondents’ occupations, I referenced the U.S. Census Bureau for my survey question about job sectors. Due to the size of my sample, I combined similar categories. Per the data in Figure 3, 20% of respondents work in trade (wholesale and retail) and manufacturing, and 18% are employed in the finance sector. 11% of respondents reported working in the information sector, and 8% are in the professional, scientific, and technological services.

Respondents in the information sector were the most supportive of AI being implemented in K-8 and high school, with 86% expressing support for each.

Additionally, I analyzed selections on AI’s relevance to discussions in their professional networks. The most common response was “Weekly”, with 36%. The second most selected frequency was “Daily”, with 33%. “Monthly” was the third most selected response, with 21%. “Yearly” was chosen by 8% of respondents, followed by 2% selecting “Never”. Altogether, nearly

70% of respondents reported AI as being a very relevant topic of discussion among their colleagues.

### ***Support by Grades Findings***



**Figure 4.** Percent of respondents' support by school grades. Data Source: Amazon MTurk Survey

The next data I analyzed was support for AI by grades. Per Figure 4, the greatest amount of support for AI's implementation was in high schools, rather than K-8 or K-12. Nearly 45% of respondents support this implementation, as opposed to K-8 and K-12. K-8 received 55% of respondents' support, followed by K-12, which received 42% support.

### ***Political Affiliation Findings***

Another dataset I analyzed was political preferences. Respondents had three options to choose from when asked which party they considered themselves to align with: Republican, Democrat, or Independent. Overall 33% of respondents classified themselves as Republicans, 55% as Democrats, and 12% as Independents. According to my data, Democrats are the most supportive of AI in K-8, with 60% support. For K-8 AI, 45% of Republicans were supportive and 25% of Independents were supportive. Republicans, however, were the most supportive of AI in high school and K-12, with 75% and 74%, respectively. Democrats were 67% supportive in both, and Independents were 25% and 29% supportive, respectively.

### **Discussion and Research Implications**

The guiding research question of this project was: Currently, does public opinion towards the use of artificial intelligence in public education vary based on the income and educational attainment of individuals in California?

My hypotheses about income were mostly supported by my data. When analyzing income and support for AI in K-8 education, I found that support was greater in higher income brackets. The exception to this data was the lowest income bracket (less than \$44,999 annually), which expressed more support than any other bracket: 78%, with 35% somewhat supporting, and 43% strongly supporting. Support increased with income, with the highest income bracket expressing 71% support, followed by 62%, 52%, and 44% in order of the lower brackets. This trend was similar in support for AI implementation in high school, with 81% of the highest income bracket supporting this, followed by 73%, 68%, and 33%. Again, the exception to this was the lowest income bracket, with expressed 84% support. My analysis of support for AI's implementation in K-12 was similar to those of support in K-8 and high school, with all income brackets except the lowest supporting my hypothesized relationship between income and attitudes for AI's implementation. 78% of respondents in the highest income bracket are supportive of this, followed by 77%, 70%, and 31%. The lowest income bracket was 84% supportive of AI being implemented in high schools. This was surprising, as I did not expect the lowest income bracket to report more support than higher income brackets. However, this may be explained by respondents in the lowest income bracket having a greater desire for younger generations to have more opportunities for growth. They may also exhibit more hopefulness for better futures with the promises of AI than individuals who are financially better off and already making use of it in their daily lives.

When analyzing my data on educational attainment and support for AI in K-8, high school, and K-12, I found that my hypotheses were supported, without any exceptions. Overall, there was about 65% support, with 40% of respondents somewhat supporting, and 25% strongly supporting.



Master's Degree holders were the respondents who supported AI in all three areas the most, followed by Bachelor's Degree holders and respondents with Associate's Degrees or lower. In my results for support of AI in K-12, Master's Degree holders were the most supportive: 84%. This was followed by Bachelor's Degrees holders, who were 44% supportive. Lastly, respondents with an Associate's Degree or lower expressed 43% support. This may be due to individuals in higher degree programs having lengthier assignments and research projects to complete than those in lower degree programs. As a result, they may be required to conduct more research and utilize technology and tools more frequently. With this increased exposure, they then establish more positive attitudes towards younger generations' use of AI.

Data on respondents' AI knowledge and the frequency of AI in their networks, in addition to the data on respondents' support by grade level indicated that the general high level of knowledge led to more support for high school students to have more exposure to AI at school. Additionally, despite the general sentiment for AI to be implemented in California's public school system, respondents were not as supportive of its implementation in schools with younger students, whose grades range from kindergarten to eighth grade.

### **Research Limitations and Research Extensions**

One area of improvement is the way in which data was analyzed. With the number of questions that were asked, cross-referencing and tallying data for multiple questions at a time to identify their relationship was meticulous. On multiple occasions, I recounted segments of the 198 responses due to my tallies not adding up.

Another limitation of this research was the length of some survey questions. In efforts to provide my respondents with as much background information as possible to level their knowledge base, some questions had multiple paragraphs which may have dissuaded respondents from fully reading the questions prior to answering. The sample size of respondents was another limitation,

with there being very little variation in educational attainment, due to the majority of respondents having Master's Degrees. There were also limitations in studying job sectors, as sample sizes for some jobs were less than 10 respondents and required combining with similar sectors for a better interpretation of the data.

A different way of analyzing support is studying California teachers' attitudes via a survey. By doing so, researchers would collect a more precise sample of responses that are specific to the adults most impacted by AI in K-12. This would also provide them with the opportunity to express their sentiments during a time of change in their workforce. As they spend a majority of students' day in the classroom, teachers would also have the ability to report observations of their class' responsiveness to the technology's implementation.

## **Conclusion**

Results from my survey indicated that individuals' income and educational attainment influences opinions. In the case of this study, the impacted attitudes were those towards California implementing AI in its K-12 education system. Greater support was found among respondents with higher income levels, as well as those with higher levels of educational attainment. High school education received more support than K-8 or K-12.

This research supplements prior studies that measured particular groups' attitudes towards AI, including students' and teachers'. Public opinion determines future legislation, and the future of the state. This study may serve as a resource to California's legislators as they continue to draft policies directed at AI. These findings may encourage further studies on attitudes towards AI or advocacy by the public for the direction of its future in California.

## Appendix A - Survey Questions

Demographics Block	
1) Are you currently living OUTSIDE of California? In another state or country?	<input type="radio"/> Yes <input type="radio"/> No
2) What county in California do you live in?	<input type="radio"/> County name: _____ <input type="radio"/> I don't live in California
3) What is your current age?	<input type="radio"/> 18-24 <input type="radio"/> 25-34 <input type="radio"/> 35-44 <input type="radio"/> 45-54 <input type="radio"/> 55+
4) What type of high school did you attend?	<input type="radio"/> Public school <input type="radio"/> Charter school <input type="radio"/> Private school (non-parochial) <input type="radio"/> Private parochial school <input type="radio"/> Home school <input type="radio"/> I did not attend high school
5) Did you attend high school in California?	<input type="radio"/> Yes <input type="radio"/> No
6) What is the highest level of school you have completed or the highest degree you have received?	<input type="radio"/> Less than a high school degree <input type="radio"/> High school graduate (high school diploma or equivalent including GED) <input type="radio"/> Some college but no degree <input type="radio"/> Associate degree or certificate <input type="radio"/> Bachelor's degree <input type="radio"/> Master's degree <input type="radio"/> Professional degree (JD, MD) <input type="radio"/> Doctoral degree (Ph.D.)

7) Are you Hispanic, Latino, or Chicano--or none of these?

- Yes  None of these

8) Choose one or more races that you consider yourself to be:

- White  Black or African American  American Indian or Alaska Native  
 Asian  Native Hawaiian or Pacific Islander  Some other race

9) What is your gender?

- Male  Female  Trans male/Trans man  
 Trans female/Trans woman  Different identity (please state)

10) Are you currently married, widowed, divorced, separated, or never married?

- Married  Widowed  Divorced  Separated  Never married

11) How many people are currently living in your household? \_\_\_\_\_

12) Information about income is very important to understand. Please give your best guess--indicate the answer that includes your entire household income for last year (2023).

- Less than \$10,000  \$10,000 - \$24,999  \$25,000 - \$44,999  
 \$45,000 - \$59,999  \$60,000 - \$74,999  \$75,000 - \$84,999  
 \$85,000 - \$99,999  \$100,000 - \$149,999  \$150,000+

13) Which statement best describes your current employment status?

- Working (paid employee)  Working (self-employed)  
 Not working (temporary layoff from job)  Not working (looking for work)  
 Not working (retired)  Not working (disabled)  Not working (other)  
 Prefer not to answer

14) Did you vote in the 2022 midterm congressional election?

- No    I usually vote, but did not in 2022    I am not sure    Yes, I definitely voted

14B) What was the party of the candidate you voted for U.S. House of Representatives in the 2022 midterm elections?

- Democratic Party    Republican Party    Other    Did not vote    Do not recall

15) Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or something else?

- Republican    Democrat    Independent    Other \_\_\_\_\_

15B) Would you call yourself a strong Republican or a not very strong Republican?

- Strong    Not very strong

15C) Would you call yourself a strong Democrat or a not very strong Democrat?

- Strong    Not very strong

15D) Do you think of yourself as closer to the Republican or Democratic party?

- Republican    Democratic    Neither    Not sure

16) Thinking about politics these days, how would you describe your own political viewpoint?

- Very liberal    Liberal    Somewhat Liberal    Middle of the Road  
 Somewhat Conservative    Conservative    Very Conservative    Not sure

17) How interested are you in politics or public policy debates?

- Very interested    Somewhat interested    Not very interested    Not interested at all

## Artificial Intelligence Block

1) How familiar are you with artificial intelligence? Examples of popular AI platforms and some of the functions listed on their company websites:

- ChatGPT: "Writing, learning, brainstorming, and more."

- Gemini: "Writing, planning, learning, and more."

- Microsoft Copilot: "[Leverage] the power of AI to boost productivity, unlock creativity, and helps you understand information better with a simple chat."

- Apple Intelligence: Writing Tools for enhanced language and summarizing, image creation from sketches, and Siri for calling and texting, asking questions, everyday tasks, and navigation.

- Galaxy AI: Circling items in pictures for internet searches, framing in cameras, summarizing notes, interpreter, live translations, photo editing tools.

Not at all familiar     Slightly familiar     Somewhat familiar

Moderately familiar     Extremely familiar

2) In 2023, Governor Gavin Newsom issued Executive Order N-12-23, with key goals to better evaluate the benefits and risks of artificial intelligence for Californians with advancements to make use of AI at the state level.

Some of these benefits include support for the state workforce and preparation for the future generative AI (GenAI) economy. Disinformation, bias, cyberattacks, deception, bioterrorism, and discrimination are among the risks and malicious uses introduced in the Executive Order.

To what extent do you support or oppose this Executive Order?

Strongly oppose     Somewhat oppose     Neither support nor oppose

Somewhat support     Strongly support

3) California Assembly Bill 2885 defines artificial intelligence (AI) as “an engineered or

machine-based system that varies in its level of autonomy and that can, for explicit or implicit objectives, infer from the input it receives how to generate outputs that can influence physical or virtual environments”.

To what extent were you familiar with this legislation prior to participating in this survey?

- Not at all familiar
- Slightly familiar
- Somewhat familiar
- Moderately familiar
- Extremely familiar

4) In what industry are you currently employed?

- Agriculture, Forestry, Fishing and Hunting
- Mining, Quarrying, and Oil and Gas Extraction
- Utilities
- Construction
- Manufacturing
- Wholesale Trade
- Retail Trade
- Transportation and Warehousing
- Information
- Finance and Insurance
- Real Estate and Rental and Leasing
- Professional, Scientific, and Technical Services
- Management of Companies and Enterprises
- Administrative and Support and Waste Management and Remediation Services
- Educational Services
- Health Care and Social Assistance
- Arts, Entertainment, and Recreation
- Accommodation and Food Services
- Other Services (except Public Administration)
- Public Administration
- Unemployed
- Retired

5) How often do you use AI at your current job?

- Daily
- Weekly
- Monthly
- Yearly
- Never
- I do not currently have a job

6) How often is AI a relevant topic of discussion in your professional network?

- Daily
- Weekly
- Monthly
- Yearly
- Never

7) How often do you use AI in your personal life for tasks unrelated to your job?

- Daily       Weekly       Monthly       Yearly       Never

8) Within the past year, EducationWeek published an article discussing the relationship between children's' developmental stages and age-appropriate AI usage in education. The main focuses of Kindergarten-8th (K-8) grade students are as follows:

**Lower-elementary students:** Understanding AI is not a real person. AI is not possess the ability to think on its own or have feelings. Most younger children do not fully comprehend this.

**Upper-elementary students:** Focusing on students' development and use of their problem-solving skills. The purpose of this is to prevent students from relying on AI for problem-solving, but rather using it as a tool to ask questions such as for definitions and spelling.

**Middle school students:** Do not loosen restrictions around AI access too much. ChatGPT allows children ages 13 and older to create accounts without their parents consent. They then have the freedom to ask the platform questions. Around this age, curiosity about adult topics (i.e., tragedy, violence, sexuality) begins to increase.

To what extent do you support or oppose AI implementation in K-8 education?

- Strongly oppose     Somewhat oppose     Neutral     Somewhat support     Strongly support

9) EducationWeek's article has also discussed the relationship between development and age-appropriate AI usage in high school education. The main focus for high schoolers is learning about the limitations of AI, for example the inaccuracies, stereotypes, and biases, that can exist in images and text generated by AI platforms.

To what extent do you support or oppose AI implementation in high school education?

- Strongly oppose     Somewhat oppose     Neutral     Somewhat support     Strongly support



10) California Senate Bill 1288 would create working groups to “assess the current and future state of artificial intelligence use in education”.

These working groups would include public elementary and secondary school teachers, administrators, university and community college faculty, and pupils. These groups would work to develop guidelines and policies for academic integrity and plagiarism, acceptable uses, data privacy and security, and parent and guardian rights. Areas of assessment would include costs, ownership, licensing, educator involvement in usage decisions, and other potential developments.

To what extent are you concerned about the implementation of AI in K-12 education?

- Not at all concerned
- Slightly concerned
- Somewhat concerned
- Moderately concerned
- Extremely concerned

11) Artificial intelligence continues to evolve and become relevant in daily life. Based on your prior knowledge and use of AI, in combination with the information you learned from this survey, please rate your level of support/opposition for the integration of AI in public K-12 education.

- Strongly oppose
- Somewhat oppose
- Neutral
- Somewhat favor
- Strongly favor

## Works Cited

- Bauer-Kahan, Rebecca. "Bill Text - AB-2885 Artificial Intelligence." *LegInfo*, Legislative Counsel Bureau, [leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill\\_id=202320240AB2885](https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240AB2885).
- Becker, Josh, et al. "Bill Text." *Bill Text - SB-1288 Public Schools: Artificial Intelligence Working Group*, Legislative Counsel Bureau, 15 Feb. 2024, [leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202320240SB1288](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB1288).
- Bureau, US Census. "Industry Category Code List." *Census.Gov*, 7 May 2024, [www.census.gov/programs-surveys/aces/information/iccl.html](https://www.census.gov/programs-surveys/aces/information/iccl.html).
- Cojean, Salomé, and Nicolas Martin. "Acceptability of technology involving artificial intelligence among future teachers." *Proceedings for the Annual Meeting of the Cognitive Science Society*, vol. 44, no. 44, 2022, pp. 2292–2296, <https://escholarship.org/uc/item/4vp429tp#main>.
- Executive Order. No. N-12-23, 2023, pp. 1–7. <https://www.gov.ca.gov/wp-content/uploads/2023/09/AI-EO-No.12--GGN-Signed.pdf>
- "Governor Newsom Signs Executive Order to Prepare California for the Progress of Artificial Intelligence." *Governor of California*, CA.gov, 17 June 2024, [www.gov.ca.gov/2023/09/06/governor-newsom-signs-executive-order-to-prepare-california-for-the-progress-of-artificial-intelligence/](https://www.gov.ca.gov/2023/09/06/governor-newsom-signs-executive-order-to-prepare-california-for-the-progress-of-artificial-intelligence/).
- "I'd like to learn more about you." *ChatGPT*, OpenAI, 4 Aug. 2024, [chat.openai.com](https://chat.openai.com).
- "LACOE Releases Comprehensive Guide for Responsible AI Implementation in TK-12 Schools." *Los Angeles County Office of Education*, Los Angeles County Office of Education, 6 June 2024, [www.lacoe.edu/news/2024-06-06-gen-ai-education-guidelines](https://www.lacoe.edu/news/2024-06-06-gen-ai-education-guidelines).
- Lee, Victor R., et al. "Cheating in the age of Generative AI: A high school survey study of cheating behaviors before and after the release of chatgpt." *Computers and Education: Artificial*

*Intelligence*, vol. 7, Dec. 2024, p. 100253, <https://doi.org/10.1016/j.caeai.2024.100253>.

Mogavi, Reza Hadi, et al. “ChatGPT in Education: A Blessing or a Curse? A Qualitative Study Exploring Early Adopters’ Utilization and Perceptions.” *Computers in Human Behavior: Artificial Humans*, vol. 2, no. 1, 2024, p. 100027. ISSN 2949-8821, <https://doi.org/10.1016/j.chbah.2023.100027>.

Prothero, Arianna. “What Is Age-Appropriate Use of Ai? 4 Developmental Stages to Know About.” *Education Week*, Education Week, 12 Mar. 2024, [www.edweek.org/technology/what-is-age-appropriate-use-of-ai-4-developmental-stages-to-know-about/2024/02#middle](http://www.edweek.org/technology/what-is-age-appropriate-use-of-ai-4-developmental-stages-to-know-about/2024/02#middle).

Rahimi, Amir Reza, and Ana Sevilla-Pavón. “The role of CHATGPT readiness in shaping language teachers’ language teaching innovation and meeting accountability: A bisymmetric approach.” *Computers and Education: Artificial Intelligence*, vol. 7, Dec. 2024, p. 100258, <https://doi.org/10.1016/j.caeai.2024.100258>.

Vagias, Wade M. (2006). “Likert-type scale response anchors.” Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation and Tourism Management. Clemson University. <https://media.clemson.edu/cbshs/prtm/research/resources-for-research-page-2/Vagias-Likert-Type-Scale-Response-Anchors.pdf>

Wang, Ning, and James Lester. “K-12 Education in the Age of AI: A Call to Action for K-12 AI Literacy.” *International Journal of Artificial Intelligence in Education*, vol. 33, no. 2, 2023, pp. 228–32, <https://doi.org/10.1007/s40593-023-00358-x>.

“Why do high school and higher education students use you most?” *ChatGPT*, OpenAI, 4 Aug. 2024, [chat.openai.com](https://chat.openai.com).