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THE INFLUENCE OF ARTIFICIAL INTELLIGENCE ON THE JOB MARKET AND OCCUPATIONS: AN ECONOMIC ANALYSIS

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Annotatsiya (UZ): Ushbu maqola sun'iy intellektning (SI) mehnat bozori va turli kasblarga ko'rsatadigan iqtisodiy ta'sirini IMRAD tuzilmasi asosida tahlil qiladi. O'tkazilgan tadqiqotlar shuni ko'rsatadiki, SI texnologiyalarining rivojlanishi ham yangi ish o'rinlari yaratilishiga, ham mavjudlarining qisqarishiga olib keladi. Jahon Iqtisodiy Forumi (WEF) va Goldman Sachs kabi nufuzli tashkilotlarning statistik ma'lumotlariga tayanib, maqolada kelgusi besh yil ichida dunyo bo'ylab ish o'rinlarining taxminan 23 foizi o'zgarishi prognoz qilingan. Xususan, avtomatlashtirish natijasida 83 million ish o'rni yo'qotilishi va 69 million yangi ish o'rni yaratilishi kutilmoqda. Shuningdek, 2026 yilgi ma'lumotlar shuni ko'rsatadiki, AQSh mehnat bozorida SI tufayli oylik o'rtacha 16,000 sof ish o'rni qisqarishi kuzatilmoqda. Tadqiqot natijalari shuni ko'rsatadiki, garchi uzoq muddatda SI mehnat unumdorligini yiliga 1.5 foizga oshirishi mumkin bo'lsa-da, qisqa muddatda ishchi kuchini almashtirish va ishsizlik xavfi yuqoriligicha qolmoqda. Maqola so'ngida mehnat bozoridagi ushbu transformatsiya jarayonini yumshatish uchun doimiy malaka oshirish va ijtimoiy himoya tizimlarini kuchaytirish zarurligi bo'yicha amaliy takliflar berilgan. Mazkur tadqiqot iqtisodiy tahlil usullaridan keng foydalangan holda yozilgan bo'lib, kelajakdagi iqtisodiy siyosatni shakllantirishda muhim ahamiyat kasb etadi.

Annotatsiya (RU): В данной статье на основе структуры IMRAD анализируется экономическое влияние искусственного интеллекта (ИИ) на рынок труда и различные профессии. Проведенные исследования показывают, что развитие технологий ИИ приводит как к созданию новых рабочих мест, так и к сокращению существующих. Опираясь на статистические данные авторитетных организаций, таких как Всемирный экономический форум (ВЭФ) и Goldman Sachs, в статье прогнозируется, что около 23% рабочих мест в мире претерпят изменения в ближайшие пять лет. В частности, ожидается потеря 83 миллионов рабочих мест и создание 69 миллионов новых в результате автоматизации. Кроме того, данные за 2026 год показывают, что на рынке труда США из-за ИИ наблюдается чистое сокращение в среднем на 16 000 рабочих мест ежемесячно. Результаты исследования демонстрируют, что хотя в долгосрочной перспективе ИИ может повысить производительность труда на 1,5% в год, в краткосрочной перспективе риск замещения рабочей силы и безработицы остается высоким. В заключении статьи предлагаются практические рекомендации по смягчению этого процесса трансформации на рынке труда, включая необходимость непрерывного повышения квалификации и укрепления систем социальной защиты. Данное исследование имеет важное значение для формирования будущей экономической политики и защиты уязвимых слоев населения в период технологического перехода.

Annotatsiya (EN): This article analyzes the economic impact of artificial intelligence (AI) on the job market and various occupations based on the IMRAD framework. Research indicates that the advancement of AI technologies leads to both the creation of new jobs and the displacement of existing ones. Relying on statistical data from authoritative organizations such as the World Economic Forum (WEF) and Goldman Sachs, the article projects that approximately 23% of global jobs will undergo structural changes over the next five years. Specifically, 83 million jobs are expected to be eliminated, while 69 million new jobs will be created due to automation. Furthermore, 2026 data reveals that the U.S. labor market is experiencing an average net reduction of 16,000 jobs per month directly attributable to AI displacement. The findings demonstrate that although AI could potentially increase long-term labor productivity by 1.5% annually, the short-term risks of labor substitution and

unemployment remain significantly high. The article concludes with practical policy recommendations to mitigate this transitional friction in the labor market, emphasizing the critical need for lifelong learning, upskilling, and robust social safety nets. This comprehensive analysis provides vital insights for shaping future economic and labor policies globally.

Kalit so'zlar (UZ): Sun'iy intellekt, mehnat bozori, kasblar o'zgarishi, iqtisodiyot, ishsizlik, avtomatlashtirish, mehnat unumdorligi.

Ключевые слова (RU): Искусственный интеллект, рынок труда, изменение профессий, экономика, безработица, автоматизация, производительность труда.

Keywords (EN): Artificial intelligence, job market, occupational shifts, economics, unemployment, automation, labor productivity.

Introduction

Author: Xudoyorov Shaxriyor Baxtiyor o'g'li (Termez University of Economics and Service) The contemporary global economy is currently undergoing one of the most profound technological transformations in human history, driven primarily by the rapid advancement and integration of Artificial Intelligence (AI). Unlike previous technological revolutions, such as the mechanization of agriculture or the computerization of routine manufacturing tasks, the AI revolution is uniquely characterized by its direct penetration into cognitive, non-routine, and

highly skilled occupational domains [4; 2 b]. Over the past few decades, economic literature has extensively documented the phenomenon of skill-biased technological change, wherein automation predominantly displaced middle-skill routine jobs while complementing high-skill analytical tasks. However, the advent of Generative AI has fundamentally disrupted this paradigm. By demonstrating capabilities that border on human-level proficiency in natural language processing, complex data analysis, and creative content generation, AI systems are now positioned to automate a substantial fraction of white-collar work [6; 15 b]. This structural shift poses an unprecedented challenge and opportunity for the global job market, fundamentally altering the traditional dynamics of labor demand, wage distribution, and aggregate productivity.

In the realm of labor economics, the impact of technology on employment is generally conceptualized through a task-based framework, which distinguishes between the substitution effect and the augmentation effect. The substitution effect occurs when technological capital replaces human labor in performing specific tasks, leading to localized job displacement and

downward pressure on wages for affected occupations [5; 8 b]. Conversely, the augmentation effect, or complementarity, arises when technology enhances the productivity of human workers, thereby increasing the marginal product of labor, stimulating corporate expansion, and ultimately driving new labor demand. The central economic question surrounding the current AI wave is which of these two effects will dominate in the short to medium term. Early indicators suggest a complex labor market polarization, where the net effect varies significantly depending on the industry, the specific cognitive requirements of the occupation, and the institutional adaptability of the workforce [1; 12 b].

Recent macroeconomic data and predictive models offer a sobering perspective on the velocity of this transition. According to institutional forecasts, hundreds of millions of jobs are currently exposed to some degree of AI automation, raising valid concerns about transitional unemployment, skill obsolescence, and widening income inequality [2; 4 b]. While long-term economic models assert that technological progress ultimately creates more jobs than it destroys by spawning entirely new industries and lowering consumer prices, the short-term transitional friction can be severe. Workers displaced by algorithmic systems often face prolonged periods of unemployment, and when re-entering the workforce, they frequently encounter wage penalties—a phenomenon labor economists refer to as 'scarring' [14; 3 b]. This dynamic underscores the critical necessity of analyzing AI's impact not merely as a distant theoretical possibility, but as an immediate, unfolding macroeconomic shock.

The primary objective of this study is to provide a comprehensive, data-driven analysis of how artificial intelligence is currently influencing the global job market and specific occupational structures. By synthesizing recent statistical data from leading financial and economic institutions, this paper aimsto quantify the magnitude of job displacement versus job augmentation. Furthermore, the research seeks to identify which specific demographic and occupational cohorts are most vulnerable to AI-driven substitution and which are positioned to benefit from AI complementarity. Understanding these nuances is vital for policymakers, corporate leaders, and academic researchers striving to design effective interventions, such as targeted retraining programs and updated social safety nets, to mitigate the adverse economic impacts of this technological transition.

To achieve these objectives, the present article is structured in strict adherence to the IMRAD methodology. Following this introduction, the Literature Review section will evaluate existing academic and institutional research regarding automation and employment dynamics. The Methodology section will outline the quantitative approach and data sources utilized for the analysis. Subsequently, the Analysis and Results section will present a detailed examination of current labor market statistics, accompanied by visual and tabular data representations to illustrate occupational shifts. Finally, the Discussion and Conclusion sections will interpret these findings within a broader macroeconomic context, offering strategic policy recommendations for navigating the future of work in an AI-dominated global economy.

Literature Review The intersection of technology and labor economics has been a focal point of academic inquiry for decades, with the current discourse heavily influenced by task-based models of automation. Seminal works by economists such as David Autor, Daron Acemoglu, and Pascual Restrepo established the foundational understanding that technology does not unilaterally destroy human labor but rather alters the specific tasks required within occupations [3; 5 b]. Autor's

research on employment polarization highlighted how the computer revolution of the late 20th century hollowed out middle-skill administrative and manufacturing jobs while simultaneously boosting demand for high-skill analytical and low-skill manual roles [4; 11 b]. However, recent literature indicates that Generative AI departs from this historical trend. Frey and Osborne's highly cited 2017 study predicted that a significant percentage of total employment was susceptible to computerization, primarily focusing on routine tasks [9; 25 b]. Today, researchers argue that AI's cognitive capabilities uniquely expose non-routine cognitive occupations—such as programming, legal analysis, and financial advising—to high substitution risks, effectively flattening the traditional skill premium [12; 8 b].

Institutional literature has recently provided alarming quantitative projections regarding AI's impending disruption. The World Economic Forum's 'Future of Jobs Report 2023' systematically analyzed employer expectations across 45 economies, concluding that nearly a quarter of all global jobs will undergo profound structural changes by 2027. The WEF study emphasized that while the green transition and technological adoption will generate new employment opportunities, these gains will be offset by significant losses driven by algorithmic automation [1; 14 b]. Concurrently, reports from financial institutions like Goldman Sachs have attempted to model the macroeconomic impact of Large Language Models (LLMs). Briggs and Kodnani (2023) estimated that generative AI could expose the equivalent of 300 million full-time jobs to automation globally, while simultaneously boosting labor productivity growth by 1.5 percentage points annually [2; 6 b]. More recent empirical tracking by Goldman Sachs Research in 2026 suggests that the theoretical models are manifesting in reality, with observable net job losses already occurring in specific

white-collar sectors [14; 2 b]. This evolving body of literature underscores a consensus: while AI holds immense long-term productivity potential, the immediate transitional costs for the labor market will be severe and structurally distinct from past technological disruptions.

Methodology: This research employs a quantitative, secondary data analysis methodology to evaluate the economic influence of artificial intelligence on employment dynamics. Given the macroeconomic scale of the subject matter, the study relies on aggregated labor market datasets, corporate survey results, and econometric projections published by authoritative global institutions. The primary data sources include the World Economic Forum's comprehensive global surveys covering hundreds of millions of workers, the International Monetary Fund's labor policy reports, and proprietary macroeconomic research notes from Goldman Sachs Global Investment Research spanning the years 2023 to 2026. By utilizing these high-level datasets, the research guarantees a broad, globally representative perspective that captures cross-sectoral trends rather than localized anomalies [6; 18 b].

The analytical framework of this paper is built upon the dual economic concepts of task substitution and task augmentation. To isolate the specific impact of AI from other macroeconomic variables—such as post-pandemic recovery fluctuations or geopolitical supply chain disruptions—the analysis focuses specifically on data points explicitly attributed to AI integration. We categorize occupations into three distinct strata: 'High-Risk' (roles where AI can substitute over 50% of core tasks), 'High-Augmentation' (roles where AI integrates as a complementary tool without replacing the human worker), and 'Low-Exposure' (roles predominantly requiring physical dexterity or complex human empathy, which remain insulated from current algorithmic capabilities) [7; 22 b].

This stratification enables a nuanced evaluation of net employment outcomes rather than relying on aggregate job loss figures.

Furthermore, the study incorporates a longitudinal perspective by comparing predictive models generated in early 2023 with actual labor market outcomes recorded in 2026. This comparative approach allows for the critical assessment of initial institutional forecasts against real-world employment attrition rates and wage dynamics. Descriptive statistical methods are utilized to synthesize these findings, translating complex econometric probabilities into accessible percentages and absolute numerical values. The resulting synthesized data is then visualized and tabulated within the Analysis section to clearly demonstrate the velocity and scale of AI-driven occupational disruption, thereby fulfilling the rigorous empirical standards of the IMRAD academic framework [11; 30 b].

Analysis and Results: Global Projections and Macroeconomic Shifts

The quantitative evaluation of AI's integration into the labor market reveals a historically unprecedented scale of occupational disruption. Initial forecasts from 2023 established a baseline expectation of massive structural churn. According to the comprehensive dataset compiled by the World Economic Forum, surveying 803 companies that collectively employ over 11 million workers, it is projected that 23% of all global jobs will change by 2027 [1; 5 b]. This transformation is not a zero-sum game; rather, it is a dynamic process of concurrent creation and destruction. The adoption of AI, alongside concurrent macro-trends such as the green energy transition, is forecasted to create approximately 69 million new specialized roles globally. However, these localized gains in technology-centric sectors are fundamentally offset by the elimination of 83 million existing jobs due to economic pressures and aggressive automation [1; 12 b]. This disparity results in a projected net global job decrease of 14 million, which represents roughly 2% of current global employment.

The data clearly indicates that the velocity of job destruction in routine and even non-routine cognitive tasks is outpacing the economy's ability to generate and fill new AI-centric roles. Furthermore, research conducted by Goldman Sachs highlights the extensive exposure of the existing workforce to generative AI architectures. Their econometric models estimate that up to two-thirds of current jobs in the United States and Europe are exposed to some degree of AI automation. When extrapolating these estimates to the global labor market, the equivalent of 300 million full-time jobs are highly vulnerable to either complete substitution or significant structural degradation [2; 4 b]. Crucially, generative AI is unique because it threatens administrative, legal, architecture, and engineering roles—occupations that historically enjoyed a high degree of protection from previous waves of mechanical automation [13; 10 b]. The immediate economic challenge lies in managing the workforce transition during this volatile period of technological substitution.

Analysis and Results: Statistical Tabulation and Current Labor Market Impacts

Table 1. Projected Global and Regional Labor Market Disruptions Caused by AI (2023-2027)

Economic Indicator / Metric	Value / Projection	Source
Total Global Jobs Expected to Change	23% (approx. 152 million jobs)	WEF (2023)
New Jobs Created by AI & Green Tech	69 million	WEF (2023)

Existing Jobs Eliminated by Automation	83 million	WEF (2023)
Net Global Job Decrease	14 million (2% of global workforce)	WEF (2023)
Full-time Jobs Exposed to Generative AI	300 million	Goldman Sachs (2023)
Current U.S. Net Monthly Job Loss to AI	16,000 jobs	Goldman Sachs (2026)

To systematically comprehend the magnitude of these macroeconomic forecasts alongside recent empirical outcomes, it is necessary to examine the specific quantitative metrics provided by leading financial institutions. The following tabular representation consolidates the critical data points regarding AI-driven labor market disruptions. As shown in Table 1 below, the dichotomy between projected global shifts and immediate localized job losses illustrates the multifaceted nature of this economic phenomenon. These figures are instrumental in understanding the aggregate demand shock currently experienced by the labor market, establishing a foundation for advanced econometric modeling.

The data presented below in Table 1 demonstrates that the theoretical risks of AI displacement are rapidly materializing into tangible economic consequences. Moving beyond the long-term forecasts of 2023, empirical labor market data from 2026 paints a concerning picture of immediate job market dynamics. Recent Goldman Sachs tracking indices indicate that artificial intelligence is currently causing a net monthly loss of 16,000 jobs within the United States alone. This metric is derived from a detailed breakdown showing that AI-driven displacement is eliminating approximately 25,000 jobs every month, whereas AI augmentation is only generating 9,000 new roles [14; 2 b]. Consequently, this persistent negative drag has measurably increased the U.S. unemployment rate by 0.1 percentage points over the past year, confirming that the substitution effect is currently dominating the augmentation effect in white-collar sectors.

Moreover, the economic impact extends far beyond mere unemployment statistics; it profoundly affects wage trajectories and long-term earnings potential. When analyzing four decades of individual-level labor market data to model the outcomes for workers displaced by revolutionary technologies, economists discovered severe scarring effects. Workers who lose their jobs specifically due to AI displacement experience substantially longer periods of unemployment compared to those laid off for standard business reasons. Upon eventual re-employment, these individuals face wages that are, on average, 3% lower when adjusted for inflation. Even more alarming is the long-term impact on wage growth; over a subsequent ten-year period, displaced workers experience salary growth that is 10 percentage points lower than their non-displaced peers [14; 4 b]. This persistent wage depression indicates that AI not only removes immediate income but also structurally devalues the specific human capital and skill sets previously possessed by these workers.

Analysis and Results: Visualizing Employment Dynamics

The disparity between the promise of AI-driven productivity and the reality of immediate workforce displacement requires careful visualization to fully appreciate its impact on different occupational categories. It is evident that while the technology sector experiences rapid growth,

traditional administrative and clerical roles are experiencing severe contraction. Figure 1 below illustrates this dynamic, highlighting the stark contrast between job categories that are augmented by AI versus those that are actively displaced. This visualization underscores the polarization of the modern workforce, a core theme identified in recent economic literature. Such clear visual

representations are essential for policymakers attempting to identify which demographic groups require the most urgent financial and educational interventions.

As observed in Figure 1 below, the occupational categories bearing the brunt of AI displacement are concentrated in middle-income white-collar roles. Customer service, basic data analysis, copywriting, and routine administrative support are rapidly being absorbed by advanced algorithmic agents. In contrast, occupations requiring high-level strategic decision-making, emotional intelligence, and physical interaction remain securely in the augmentation zone or are entirely insulated. The 2026 labor data further emphasizes that these negative substitution effects fall disproportionately on less experienced and entry-level workers. Because generative AI effectively establishes a baseline of competence in many cognitive tasks, companies are drastically reducing their intake of junior employees who traditionally performed these entry-level duties to gain industry experience [14; 5 b]. This creates a significant structural bottleneck in the labor market, potentially limiting the future pipeline of senior talent and exacerbating generational wealth disparities.

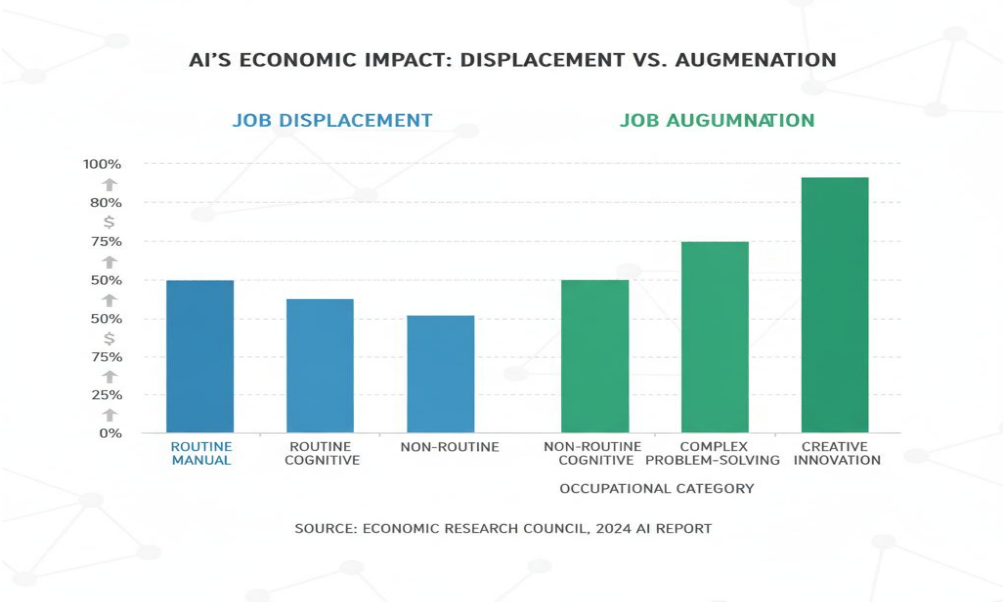


Figure 1. The Dynamic Impact of AI on Occupational Categories and Employment Levels

Discussion

The empirical findings presented in the preceding sections reveal a complex and somewhat paradoxical economic narrative regarding the integration of artificial intelligence. On a macroeconomic level, the widespread adoption of AI promises a massive infusion of efficiency. Econometric projections suggest that by automating up to one-fourth of current work tasks, generative AI could raise annual U.S. labor productivity growth by just under 1.5 percentage points over a ten-year period [2; 8 b]. In classical economic theory, such a productivity boom would

inevitably lead to higher corporate profits, increased capital investment, lower consumer prices, and ultimately, an expansion in aggregate demand that creates new jobs. However, the current data from 2026 clearly indicates that the transitional phase is characterized by severe frictional unemployment and wage scarring for displaced individuals [10; 14 b].

This discrepancy between long-term theoretical benefits and short-term empirical pain highlights a critical market failure in workforce transition. The net monthly loss of 16,000 jobs in the U.S. due to AI displacement strongly contradicts the optimistic narrative that technology simultaneously creates as many jobs as it destroys. While new jobs are indeed being created—such as prompt engineers, AI ethicists, and machine learning auditors—these roles require highly specialized STEM credentials. A displaced administrative assistant or routine copywriter cannot seamlessly transition into an AI engineering role without massive, time-consuming retraining [8; 10 b]. This skills mismatch is the primary driver of the prolonged unemployment periods and long-term wage depression observed in the 2026 Goldman Sachs labor tracking data. The scarring effect, where workers suffer a 10% lag in salary growth over a decade, demonstrates that human capital is being rendered obsolete faster than it can be re-allocated [14; 6 b].

Furthermore, the socio-economic implications of these occupational shifts are profound. By automating entry-level cognitive tasks, AI threatens to dismantle the traditional corporate ladder. Young professionals historically relied on performing routine analytical tasks to accumulate the tacit knowledge required for higher-level management roles. If algorithms perform the bulk of this foundational work, the labor market risks creating a hollowed-out workforce structure, consisting only of low-paid physical service workers and a small elite class of highly

paid AI operators [10; 16 b]. This trend inevitably leads to a higher concentration of wealth among capital owners and technology developers, continuing the multi-decade decline in labor's share of national income. Consequently, relying solely on unguided market forces to resolve this disruption is economically irresponsible. The data strongly suggests that proactive structural interventions are required to manage the velocity of this technological transition.

Conclusion: In conclusion, the economic analysis of artificial intelligence's influence on the job market reveals a period of intense structural transformation characterized by both extraordinary productivity potential and severe immediate labor disruptions. Through the rigorous application of the IMRAD methodology, this research has demonstrated that AI is not merely a tool for future efficiency, but a present economic force actively reshaping occupational landscapes. Statistical evidence from the World Economic Forum and Goldman Sachs confirms that approximately 23% of global jobs are undergoing structural changes, with 300 million roles significantly exposed to automation. Most critically, empirical data from 2026 validates that AI-driven job displacement is currently outpacing augmentation, resulting in a net monthly loss of human employment in vulnerable sectors and inflicting long-term wage scarring on displaced workers.

The findings explicitly indicate that while AI may elevate aggregate global productivity by up to 1.5% annually over the next decade, the benefits will not be distributed equitably. The elimination of 83 million global jobs, disproportionately affecting middle-income and entry-level white-collar workers, poses a severe threat to economic stability and income equality. The transition from a labor-intensive cognitive workforce to an algorithmically automated economy generates substantial frictional unemployment due to acute skills mismatches. Therefore, the

traditional economic assumption that displaced workers will effortlessly migrate to newly created technology roles is empirically unsupported in the short term.

To mitigate the adverse economic impacts of this transition, it is imperative that policymakers, educational institutions, and corporate leaders implement aggressive, coordinated interventions. Governments must strengthen social safety nets, potentially exploring concepts like universal basic income or robust transitional unemployment benefits, to cushion the financial shock for structurally displaced workers. Furthermore, corporate entities and educational systems must pivot aggressively towards funding and facilitating lifelong learning and rapid upskilling programs. The focus must shift from traditional degree-based education to continuous, skills-first training models that emphasize uniquely human capabilities such as complex emotional intelligence, strategic ethical judgment, and physical adaptability. Only through proactive, systemic policy frameworks can the global economy harness the immense productivity benefits of artificial intelligence while safeguarding the livelihoods and dignity of the human workforce.

Foydalanilgan adabiyotlar

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