

Impact of Macro Government Policies to the Unemployment Problem of Chinese College Students

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Abstract. As a key indicator affecting macroeconomic development, the employment level has long been a major focus for numerous scholars. Due to the influence of multiple factors, the employment rate of college students has declined drastically, with most facing the dilemma of "graduating unemployed". Against this backdrop, this paper takes the current employment status of Chinese college students as a practical foundation, primarily exploring how fiscal policies, monetary policies, and supply-side macroeconomic policies impact their employment situation, while proposing specific recommendations based on existing effects. The findings indicate that the impact of the epidemic, the rise of artificial intelligence, and college students' tendency to seek employment within institutional frameworks are the primary causes of rising unemployment. The rational implementation of relevant macroeconomic policies, to a certain degree, helps boost employment. Finally, the paper offers corresponding policy suggestions from the policy, university, and individual perspectives. The conclusions of this study can serve as a practical basis for addressing the employment challenges of contemporary college students.

Keywords: College students, Unemployment rate, Macroeconomic policies.

1. Introduction

Current economic policies adopt a "package approach" for precise implementation: by offering tax incentives to enterprises and other measures to stabilize the mainstay of the economy, the government proactively collaborates with enterprises to identify and expand job opportunities for them. Universities specifically provide short-term, targeted "micro-specializations" that focus on industry-specific skills to narrow the gap between traditional academic programs and enterprises' actual needs. This enables college students to acquire skills in high demand by enterprises and enhances the alignment between talent supply and job market demand. While these policies have helped stabilize employment conditions, college graduates still face pressures—with over 11.7 million graduates in 2024, the structural supply-demand imbalance remains notable. The employment of college graduates is tied to talent utilization and social stability, and it serves as a critical indicator of economic transformation. This raises the following research questions: What is the actual effectiveness of these policies in alleviating college graduates' employment pressure? How do their impacts differ across graduates from different universities and academic major?

Current research has conducted multi-dimensional discussions on the employment difficulties faced by college students. Regarding the causes of unemployment, existing studies have pointed out that the impact of the pandemic on the primary and tertiary industries led to layoffs in enterprises, artificial intelligence replaced repetitive jobs and the high preference of college students for jobs within the public sector caused a mismatch between supply and demand, jointly pushing up the unemployment rate [1-3]. In terms of the impact of policies, scholars analyze the costs and benefits of the fiscal policy, monetary policy, supply-side policy [4-7]. For instance, the cut of corporation tax can create more job opportunities, but it lacks universality. The deregulation of the interest rate is beneficial to labor-intensive enterprises. However, vocational training has limited effectiveness due to the defects of its methodology. In addition, this research also proposes countermeasures at the government, university and individual levels, providing ideas for solving the employment problems [8,9].

This research first presents the current situation where the unemployment rate of college students has been fluctuating and rising, reaching its peak in 2023. It then identifies the three main causes of unemployment. Subsequently, it takes three policies as examples to analyze their positive and negative effects on employment. Finally, some suggestions are offered from the perspectives of the government, universities and individuals, aiming to resolve the dilemma of college students' unemployment. Theoretically, it enriches the research on the causes of college students' unemployment and impacts of the macro policies. Practically, it provides practical guidance for the government to formulate policies, universities to reform and individuals to seek employment, helping to alleviate the employment crisis.

2. Analysis of Employment Situation

In recent years, the issue of college students' unemployment has become a focus of public concern. As shown in Figure 1, the unemployment rate has risen from 11.9% in 2019 to 21.3% in 2023, which is four times the usual unemployment rate. The unemployment problem of college students is particularly prominent. This line graph illustrates the trend of the unemployment rate: it was 11.90% in 2019, rose to 14.2% in 2020, increased slightly to 14.30% in 2021, climbed further to 17.60% in 2022, reached its peak of 21.30% in 2023, and dropped to 18.80% in 2024. Overall, the unemployment rate showed a fluctuating upward trend during this period. It reached its maximum value in 2023 and then declined. In 2024, the unemployment rate for master's degree graduates was as high as 67%, while the employment rate for master's and doctoral students from general universities was only 33%, a decrease of 17% compared to 2023. This series of circumstances have caused many college students to experience employment anxiety [10]. So why do college graduates with high skills and qualifications end up in the predicament of "graduate unemployment"? The main reasons include the economic difficulties caused by the COVID-19, the development of AI and the influence of employment concepts.

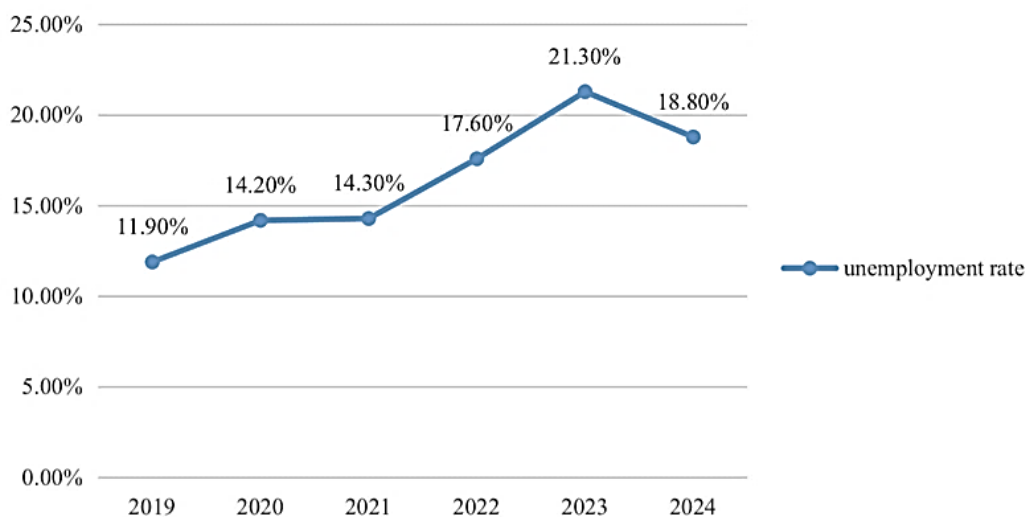


Fig 1. The unemployment rate of Chinese college students

When it comes to the pandemic, enterprises faced severe economic difficulties during the epidemic period, which led to a fall in the number of employees. As a consequence, layoffs were widespread [11]. The primary industry, like agriculture, relies on natural cycles and actual labor and has a rigidity in production structure, resulting in low price elasticity of supply. Therefore, the supply segment is brought by the epidemic to the primary industry, which is also called production disruptions. For example, the home quarantine measures might have prevented farmers from framing and halted the transportation of agricultural products. Local supply chains broke down, leading to a sharp decline in output. While the secondary industry, which is characterized by industrial production, has a high price elasticity of supply and a stronger ability for efficient coordination and linkage within the industrial

chain. The impacts of the epidemic can be alleviated through means such as stock adjustment, substitution of capital and technology and etc., thus reducing the extent of production cuts. Moreover, the tertiary industry, which is centered around services, has suffered direct impacts on its production. For instance, in order to prevent the spread of the virus and reduce personnel contact, restaurants and stores have closed or implemented capacity restrictions and the number of tourists has significantly decreased, resulting in a large scale production reduction in the tertiary industry. Meanwhile, the tertiary industry often happens simultaneously with consumption and cannot reduce the negative impact fought by the epidemic through inventory regulation, capital and technology substitution, etc. [1]. In summary, during the epidemic, enterprises' output and income declined. To reduce the costs and thus reduce the number of enterprises, a large number of layoffs occurred, especially in the primary and tertiary industries.

Moreover, artificial intelligence has also had a significant impact on the employment of liberal arts students. For service industries, that follow fixed operation models, such as the financial industry, many financial institutions are attempting to replace human workers with artificial intelligence. For instance, the number of on-site cash stock traders at Goldman Sachs's headquarters has dramatically decreased from 600 to just 2. Artificial intelligence interaction tools are integrated throughout various stages, including user profiling, identity verification, document review and after-sales service. In the news and publishing industry, artificial intelligence has reshaped the forms of collecting, writing and disseminating text and image materials, replacing repetitive tasks such as initial writing, proofreading and typesetting. For example, the New York Times announced in 2017 that it would significantly adjust its positions and establish a column written by artificial intelligence. Some companies predict that by 2027, the proportion of jobs cuts in banks, insurance and capital markets will reach 22%, 25% and 16% respectively, and the working hours of remaining positions will be reduced by approximately 27% [2]. Therefore, to some extent, the emergence of artificial intelligence has led to the unemployment of college students.

On the other hand, college students' employment outlooks are overly focused on the institutional sector. A 2020 survey on college students' employment intentions shows that graduates have extremely strong enthusiasm for the "civil service exam" and "teacher qualification exam". When it comes to preferred employer types among job-hunting graduates, institution-related ones make up as much as 69.9%. Specifically, schools and research institutes account for 27.3%, state-owned enterprises for 21.0%, government departments for 12.9%, and other public institutions for 8.7%; in contrast, only 11.1% choose private and joint ventures, and 7.9% opt for foreign-funded joint ventures. The remaining 8% select flexible employment. Thus, college graduates face unemployment because of their personal subjective employment preferences, the mismatch between their choices and the market's job supply, and their reluctance to make concessions [3].

3. Analysis of the Impact of Macroeconomic Policies on Employment

3.1. Fiscal Policy

The impacts of fiscal policy on employment of college students cannot be ignored. This article takes the preferential policies for corporate income as an example and focuses on analyzing its positive and negative impacts, it mainly manifests in two aspects. Firstly, it can reduce the cost of enterprises. Corporate income tax is an important component of the operating costs of enterprises. Reducing the tax cost of corporate income and lowering the tax burden of corporate income tax can alleviate the financial pressure and increase the cash flow of enterprises, thus enabling enterprises to allocate more funds to production and business activities, expand production scale and create more job opportunities. As a result, the unemployment rate of college students decreases. Secondly, it can optimize the enterprise structure. The reduction of corporate income tax increases the distributable funds of enterprises in their production and business activities, encourages enterprises to innovate, optimize the transformation and upgrading of the enterprise structure, enhance competitiveness, and create more job opportunities and opportunities for college students. Moreover, innovation is closely linked

to the long-term development of enterprises. This policy provides enterprises with the motivation to create innovation, and then increases investment in R&D, improves independent innovation capabilities, promotes the demand for high-skilled talents, and expands employment space [4].

In terms of negative impacts, first of all, it is difficult for the government to set an appropriate level for enterprise income tax benefits. From an overall perspective, the taxes that enterprises need to pay are still excessive and unclear, and the tax declaration process is cumbersome. If the enterprise income tax benefits are insufficient, the enterprise's cost expenditures will be too high, which will hinder the expansion of production and prevent the enterprise from increasing employment opportunities. As a result, the unemployment problem cannot be alleviated. If the enterprise income tax benefits are too large, the fiscal revenue capacity will be weakened, leading to restrictions on government investment in public services (such as directly providing educational services), which directly affects the teaching quality of universities, such as weak faculty strength and shortage of training equipment. During the university years, college students have difficulty obtaining knowledge and skills that meet the requirements of enterprises. The employment rate of college students is difficult to increase. In addition, this policy has low universality. Due to the different business conditions of enterprises, enterprises can only enjoy this policy under specific conditions, such as industry scope, the size of the workforce, available cash flow, and the size of potential risks. Therefore, this policy does not have universality for the vast majority of enterprises and still has an adverse impact on solving the employment problem of college students [4].

3.2. Monetary Policy

Monetary policy exerts influence on employment as well. Taking interest rate control relaxation as an example, this article focuses on its positive and negative impacts on employment; the positive ones mainly lie in easing financing constraints and enhancing fund availability. After interest rate control is relaxed, enterprises' financing constraints are significantly alleviated, which improves their fund availability and provides capital support for them to expand labor employment scale. Take labor-intensive enterprises—those relying more on labor input—as an instance: they have fewer collateralizable assets and face heavier financing constraints. When interest rate control is relaxed, their financing constraints are reduced, granting them more funds and thus boosting the employment rate of college students in the labor force [5].

In terms of negative impacts, the policy's universality remains relatively low. Compared to labor-intensive enterprises, capital-intensive enterprises are more dependent on capital investment (such as factories, equipment, etc.), have relatively less labor demand, and have more collateralizable assets. They face more financing constraints than labor-intensive enterprises. Therefore, the promotion effect of interest rate liberalization on the employment level of labor-intensive enterprises will be more obvious [6].

3.3. Supply-side Policy

Supply-side policies have also made certain contributions to solving the employment problem. This article takes providing vocational training as an example, and focuses on analyzing the positive and negative impacts on employment; in the positive impact aspect, it mainly manifests in focusing on key projects and optimizing training courses. For instance, in the self-media industry, the government, by conducting investigations on labor market demands and industry development trends, determines that short-video production and e-commerce live-streaming should be key training projects. Based on the skill requirements of employers for positions such as short-video operation and e-commerce live-streaming, the human resources department collaborates with training institutions and digital media enterprises to improve training content and practical training forms, enhancing the specificity and effectiveness of training, thereby increasing the employment rate [7].

In terms of negative impacts, the unscientific approach to labor employment training has weakened the effectiveness of this policy. Unscientific training methods are typically characterized by a single lecture format, which fails to meet the participation and interaction needs of college students,

resulting in limited learning outcomes. This method fails to stimulate learners' active thinking, practical application, and innovative thinking, so the employment rate has not increased as expected. Additionally, the lack of a scientific training assessment mechanism also has an adverse effect on the increase in the unemployment rate. Vague or absent assessment standards prevent the precise quantification of the learning outcomes and skill improvements of college students, thus making it impossible to estimate the actual effectiveness of vocational training. Secondly, the assessment method being too simplistic limits the comprehensive evaluation of the practical application abilities and soft skills of college students. Usually, vocational training assessments rely solely on written examinations while neglecting the assessment of practical work abilities, thereby affecting the improvement of the unemployment rate [12].

4. Suggestions

From the governmental viewpoint, amid efforts to boost the employment of university graduates, the government must assume a central guiding role and prioritize resolving structural mismatches in the job market. To achieve this goal, the government should develop and flexibly adjust employment policies tailored to specific needs. By implementing measures like preferential terms for targeted recruitment, enhancing the benefits of grassroots roles, and expanding career growth and promotion pathways, it can encourage university graduates to proactively take up positions in grassroots sectors—including education, healthcare, and rural revitalization initiatives in remote regions. This, in turn, eases the predicament where "remote areas face recruitment shortages" and "university graduates struggle to find jobs" exist simultaneously. Meanwhile, the government needs to establish a comprehensive policy framework to support university graduates' entrepreneurial endeavors, with a focus on three critical dimensions: funding, spaces, and services. For funding support, it should create dedicated assistance funds and streamline the approval procedures for low-interest or interest-free loans; regarding spaces, it should construct entrepreneurship incubation centers and lower initial costs such as rent, water, and electricity fees; in terms of services, it should build a professional team to offer end-to-end support—covering policy advisory, project guidance, and skills training—to drive employment via entrepreneurship and contribute to raising the overall employment rate.

From the standpoint of different universities, when advancing college students' employment, these institutions should center their efforts on talent development and strengthen the collaborative link between employment services and teaching reforms. While most universities have set up career guidance centers and corresponding courses, their service modes and curriculum systems still require upgrading. Universities may hire professional social workers to join career guidance centers; leveraging these workers' professional expertise, they can provide customized career planning, psychological support, and job-hunting strategy advice. This approach breaks the constraints of traditional models and enhances the flexibility and precision of services. More notably, universities need to align with social industrial demands and situational changes, and dynamically refine their curriculum arrangements. For different majors, courses integrating theory and practice should be provided—for instance, adding industry-specific training sessions for artificial intelligence majors and launching new media hands-on training camps for liberal arts majors. Meanwhile, corporate mentors can be invited to participate in curriculum design, with more case-based teaching and mock interviews introduced. This helps students build job-related skills, boost their employability, and ultimately realize a precise alignment between talent cultivation and market needs.

From an individual perspective, for college students struggling with employment anxiety or lacking social adaptability, taking proactive personal action serves as a key breakthrough. This group can establish or join theme-based growth groups, where they build capabilities through group interaction. Within these groups, they can focus on core topics like interview techniques and job-hunting strategies for systematic learning. They can also tap into their personal potential by integrating feedback from peers. Meanwhile, through sharing experiences and discussing issues with group members, they can address common problems encountered in job interviews in a targeted way.

This peer support system not only strengthens individuals' confidence in job hunting and effectively eases negative feelings such as interview anxiety, but also hones interview skills through repeated practical exchanges—ultimately achieving balanced improvement in both emotional state and employment capabilities [8].

5. Conclusion

This paper first outlines the current trend of fluctuating growth in college students' unemployment rate from 2019 to 2024, with this figure hitting a peak of 21.3% in 2023. The driving factors behind this phenomenon are threefold: First, the pandemic has disrupted the primary and tertiary industries—key sources of employment—leading to a shrinkage in job openings; Second, the rapid advancement of artificial intelligence is replacing basic clerical roles, creating a mismatch between the shortage of versatile talents and the decline in entry-level positions; Third, college students' preference for in-house roles has heightened competition in the job market. Taking specific policies as cases, this paper analyzes the positive and negative effects of fiscal, monetary, and supply-side policies on employment. Finally, it puts forward recommendations from the perspectives of the government, universities, and individuals, aiming to shed light on the predicament of college students' unemployment and assist in addressing this issue. This paper has three limitations: First, its analysis of causes focuses on external factors, with insufficient exploration of how well students' own abilities align with market demands; Second, the policy analysis only uses single policies as examples, fails to cover more policy types, and lacks research on the synergistic effects of different policies; Third, most recommendations are directional statements—such as optimizing university curricula—without providing specific implementation paths or effect evaluation plans, resulting in low practicality.

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