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China's Solution to the Dilemma of Higher Vocational Education Under the Background of Declining Birth Rate

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ABSTRACT

Objectives: Vocational education is an important pathway for students to enter society after mastering work skills and is also an indispensable component of higher education. Currently, in some high-income and upper-middle-income countries, with the continuous decline in birth rates, the school-age population is decreasing year by year. Compared with general higher education, vocational education faces significant gaps in social reputation, employer recognition, and career choice, making it the first to be affected by the decline in the school-age population. In some countries, there has even been a wave of closures of higher vocational colleges, with some students bypassing higher vocational education options and directly seeking employment. **Methodology**: Over the past fifteen years, China has been one of the upper-middle-income countries experiencing the most severe decline in birth rate and one of the fastest in expanding higher education enrollment. In this context, how to balance the scale and quality of vocational education between a declining birth rate and a rising higher education enrollment rate has become a new challenge. **Results**: The research found that (1) merging and restructuring vocational education institutions within the same region, upgrading some of the stronger institutions after the merger to vocational and technical universities; (2) providing fair employment opportunities and an employment environment for graduates of higher vocational education; and (3) embracing changes in industrial structure and implementing custom-made talent training have become three feasible solutions to the vocational education dilemma.

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Introduction

Higher education is regarded as an important component of a nation's overall education system and, to some extent, a key determinant of a country's comprehensive soft power. Following the wave of decolonization after World War II, numerous newly sovereign countries began planning, laying out, and implementing higher education systems. Around the 1990s, developing countries such as South Korea, Malaysia, and Thailand experienced economic take-off. With the increasing social demand for high-quality talent, higher education entered an era of rapid expansion (Jon & Yoo, 2021). Various forms of educational institutions, including universities, colleges, institutes of technology, and vocational colleges, flourished. Although the nomenclature and academic systems differ due to the historical development of higher education and varying national conditions across countries, they can generally be categorized into two types of higher education: undergraduate education, which focuses more on general education and awards bachelor's degrees (Gordon & Schultz, 2020), and vocational education, which emphasizes practical skill development.

Against this backdrop, the gross enrollment ratio (GER) in higher education has significantly increased in many emerging economies or regions. This is not only due to sustained investment in education funding driven by rapid national economic growth and the establishment of numerous higher education institutions but also attributable to continuously improving education systems and more diverse channels for student financial support (Herbaut & Geven, 2020). For example, Malaysia's GER rose from 3.8% in 1979 to 44.1% in 2016; South Korea's increased from 11.4% in 1980 to 70.3% in 2007; and China's grew from 3% in 1990 to nearly 55% in 2020 (Wu et al., 2019). The equalization of the right to education has enabled students from ordinary families to access quality higher education through their academic efforts.

However, economic take-off has not only accompanied the widespread popularization of higher education but has also significantly impacted fertility rates in these countries. Years of research on the relationship between total fertility rates (TFR) and overall educational attainment in developed countries have proven that higher educational levels correlate strongly with lower fertility intentions and serve as a key factor (John, 2024), leading also to later ages at first birth. Taking the same countries as examples, Malaysia and South Korea saw their TFR decline from 6.41% and 5.95% in 1960 to 1.82% and 0.84% (Yun et al., 2022) in 2020, respectively. China's TFR dropped from 7.51% in 1963 to 1.71% in 2023 over sixty years. Insufficient enrollment due to low fertility rates and financial constraints for some institutions have led to the closure of a significant number of higher education institutions in many countries. According to South Korean higher education data, 19 institutions closed since 2000, with vocational colleges being the first affected, particularly private ones. This is more evident in enrollment quotas: South Korea's domestic higher education student quota was 551,317 in 2012 but decreased by 62,271 to 489,968 by 2017.

On one hand, influenced by birth control policies (Chen & Huang, 2020) and significant shifts in fertility attitudes (Blair & Madigan, 2020), China has become one of the upper-middle-income countries with the lowest TFR. On the other hand, multiple rounds of education reforms and institutional enrollment expansions have also made China one of the upper-middle-income countries with the highest GER. The combined effect of declining

birth rates and rising enrollment rates has increased the average level of education in society but has also brought hidden educational problems. The perceived value of higher vocational education has decreased, and employment choices face insurmountable barriers (Wang & Guo, 2018), leading to a gradual decline in social recognition.

Literature review

In recent years, upper-middle-income countries have generally been transitioning from high fertility-low mortality to low fertility-low mortality patterns (Pezzulo et al., 2021). The sustained decline in TFR in new high-income and upper-middle-income countries is an undeniable fact. TFR refers to the average number of children born to a woman of childbearing age. The world average TFR is close to the 2.3 recommended by the World Health Organization for population replacement. According to World Bank standards, as of 2022, there are 54 upper-middle-income countries with a total population of 2.78 billion. While there remains a significant gap in average economic strength between these countries and high-income countries, their fertility rates are strikingly similar, differing by only 0.1 (1.6 vs. 1.5), far below the recommended 2.3 level. Comparing data from the top 11 upper-middle-income countries by GDP per capita with populations over 5 million reveals that a potential population crisis has already spread to this category of nations.

Table 1.1

2022 Total fertility rate in upper-middle-income countries

Nation	GDP per capita	Population	Total fertility rate
Argentina	13650.6	47327407	1.88
Costa rica	13365.4	5204411	1.52
China	12720.2	1409670000	1.18
Malaysia	11993.2	34564810	1.79
Turkmenistan	12500	7057841	2.62
Mexico	11496.5	129875529	1.80
Kazakhstan	11492.0	20075271	3.05
Turkey	10674.5	85372377	1.88
Serbia	9537.7	6647003	1.63
Cuba	9499.6	10985974	1.45
Brazil	8917.7	205375043	1.63
World	12743.85	7.95billion	2.27
Upper-middle-income countries	10814.3	2.78billion	1.6
High income countries	49607.2	1.24billion	1.5
Population replacement			2.3

Source: United Nations Population Division. World Population Prospects: 2022 Revision

The impact of TFR on national wealth, labor markets, energy consumption, and the macroeconomy has been confirmed by numerous previous studies (Alola et al., 2019; Cheng et al., 2022; Kearney et al., 2022). Data shows that China's TFR decline started earlier and proceeded much faster than in other upper-middle-income countries at similar development stages. Since the turn of the millennium, China's economic structure underwent fundamental changes (Liu, 2020), leading to shifts in citizen lifestyles, educational duration, and other aspects, further impacting fertility intentions (Zhai & Jin, 2023). Over the twenty years from 2002 to 2022, TFR dropped from 1.57 to 1.18. Currently

at the low end among upper-middle-income countries, even lower than some high-income countries, China has become one of the countries with the lowest fertility rates globally (Guo et al., 2018). This phenomenon has already begun to cause an oversupply of educational resources at the preschool (kindergarten) and compulsory primary education levels. Schools with mediocre teaching quality and inconvenient locations face closure and mergers. Population issues are prompting governments to consider the reallocation of educational resources (Peng et al., 2020).

Against the backdrop of continuously declining fertility rates, higher vocational education is the first segment within the higher education sequence to be affected. Research shows that populations in countries placing greater emphasis on the quality of the next generation's education tend to have lower TFRs (Kim et al., 2024). Under constant family income, the time and financial costs of raising an additional child increase substantially. Consequently, in low-fertility countries, parents often prefer their children to enter prestigious universities and receive elite education. By 2018, China's global middle class constituted 25 percent of its population (Sicular et al., 2022). With the rapid expansion of the middle class, the combined effect of higher average education duration and lower birth rates has made "fewer births, better nurturing" a consensus for such families (Cherlin, 2020). Clearly, higher vocational education is not the first choice for these families.

While higher vocational education is affected by macro-level birth rate changes, its disadvantaged position within China's overall higher education system is another major reason impacting its sustainable and healthy development.

This disadvantaged position is mainly reflected in two aspects: employment level and social recognition. Since the founding of the People's Republic of China, due to the factors underpinning the planned economy, graduates from universities and specialized secondary schools were assigned to appropriate regions, sectors, and positions according to national policies and methods, based on state needs and individual circumstances (Qiping & White, 2023). Therefore, during this phase, there was no significant distinction in employment prospects between higher vocational education and general higher education. It was only after 1996, with political and economic reforms, that the graduate assignment system was officially abolished. The employment levels of graduates from vocational colleges and undergraduate universities gradually diverged. Particularly in national and provincial civil service examinations and public institution recruitment, educational requirements were explicitly raised. Only a very limited number of grassroots positions or remote areas, aiming to attract talent, set the minimum threshold at the higher vocational college (associate degree) level. A bachelor's degree became the minimum requirement for most positions. In 2025, China's central government agencies and their directly affiliated units recruited 39,700 civil servants, of which only 52 positions (0.13%) were open to higher vocational education graduates. The significant demonstration effect and profound influence of government and other non-private sector requirements permeated the private sector. Coupled with the rapid annual increase in graduates from higher education institutions, especially those with bachelor's degrees, recruiting graduates with at least a bachelor's degree became the minimum standard for companies of a certain size, even when the job itself did not require such high academic qualifications or skills (Zheng et al., 2021).

Facing tangible employment barriers, the intangible barrier of low social recognition

further dampens the enthusiasm of students and parents for higher vocational education. The lack of social recognition stems from multiple sources. In traditional Chinese concepts, "excelling in studies to become an official" is a universal pursuit (Jiang et al., 2020). When state institutions close their doors to graduates of higher vocational schools, preventing them from participating in the social division of labor as managers, this type of education is perceived as dim and unpromising. If the social recognition of vocational school graduates' employment is insufficient, then being admitted to a higher vocational college instead of an undergraduate university is seen as concrete evidence of weak academic ability in the social consciousness. The National College Entrance Examination (Gaokao) is China's primary method for selecting higher education talent (Jia & Li, 2021). Undergraduate universities have priority in the admission sequence over higher vocational colleges. Essentially, students are only admitted to higher vocational colleges after failing to secure places in undergraduate universities through multiple rounds of selection. Undoubtedly, this admission sequence and structure imply a form of unfairness: students entering higher vocational colleges are mostly perceived as lacking the ability to participate in undergraduate education.

The above literature review reveals that the birth rate issue and the disadvantaged status have become the main factors causing the imbalance in higher vocational education. However, research on the relative significance of each factor's impact on higher vocational education is still incomplete. Furthermore, evidence supporting the changes in the proportion of higher vocational education under administrative intervention is insufficient. More specific data analysis and research are needed.

Methodology and Data Analysis

To determine the total number and proportion of higher vocational schools in China's overall higher education system, we must first clarify the composition of China's higher education. According to the bulletin of the Ministry of Education of China, for a long time, there were only two types of institutions that admitted students through the general college entrance examination (Yang & Chia, 2023), namely general undergraduate schools and higher vocational (technical) schools. After 2020, the category of vocational universities was added. They are technical institutions with the right to confer bachelor's degrees, focusing on the cultivation of applied abilities and supplemented by theoretical knowledge education. They are also one of the carriers of China's higher vocational education reform.

This research collected data spanning 20 years from 2003 to 2023 on the higher education school-age birth population and higher education, including the number of existing undergraduate universities and higher vocational colleges each year, as well as their respective enrollment figures. Data on the total number of civil servant recruits and the number recruited with associate degrees (from higher vocational colleges) across China's 31 provincial-level administrative divisions from 2023 to 2025 was also collected.

Figure 1 visually shows the trend of the higher education school-age birth population and the trend of higher education enrollment figures and their proportions from 2003 to 2023. Starting in 2003, the school-age population first rose and then fell, peaking in 2006. Despite some fluctuations afterward, it showed a clear downward trend overall. Over 20 years, the decline rate was nearly 23%. Compared to the peak value in 2006, the decline rate was as high as 37%. The continuous decline in the birth rate indisputably impacts the

structure of higher education. Meanwhile, with the expansion of higher education, enrollment increased from 3.822 million in 2003 to 10.422 million in 2023, a significant increase of 172.7%. The combined effect of the declining school-age population and the sharply rising enrollment resulted in the enrollment rate soaring from 18.5% to 65.4%, approaching the average level of high-income countries.

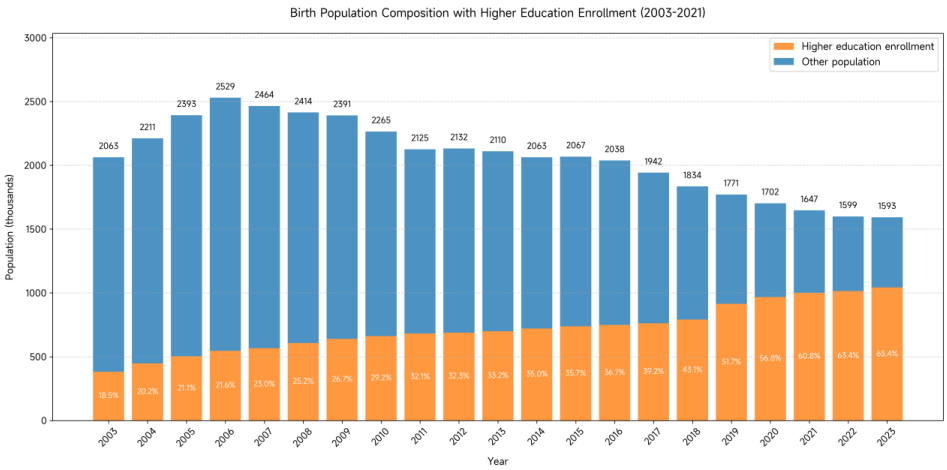

Figure 1: Higher education school-age birth population and enrollment numbers

Secondly, looking at the number and proportion of institutions in Figure 2. From 2003 to 2023, the number of undergraduate universities increased by 92.86%, while the number of higher vocational colleges increased by 70.37%. Before 2008, the number of undergraduate universities was significantly lower than that of higher vocational colleges. That year, the Ministry of Education issued the Regulations on the Establishment and Management of Independent Colleges. Independent colleges are higher education institutions jointly established by universities with high academic levels and teaching resources and social entities, including but not limited to public institutions, state-owned enterprises, and private enterprises. The Regulations clarified the status of these previously ambiguously positioned independent colleges. Colleges previously affiliated with prestigious universities gained full operational licenses, enrollment autonomy, the ability to conduct independent teaching and administrative management, and were separately included in local government fiscal systems (Liu et al., 2022). This move rapidly increased the number of undergraduate universities, narrowing the absolute gap between the two types of institutions. Over the subsequent 12 years, both maintained relatively synchronized growth rates, with their proportions stabilizing around 47% and 53%, respectively. Starting in 2020, this balance was disrupted. The Ministry of Education issued the Implementation Plan for Accelerating the Restructuring of Independent Colleges. Independent colleges, having fulfilled their historical mission of expanding higher education scale and enrollment, began to be transformed in batches into Vocational and Technical Universities. Consequently, after peaking in 2019, the number of undergraduate universities experienced slight declines or overall stabilization.

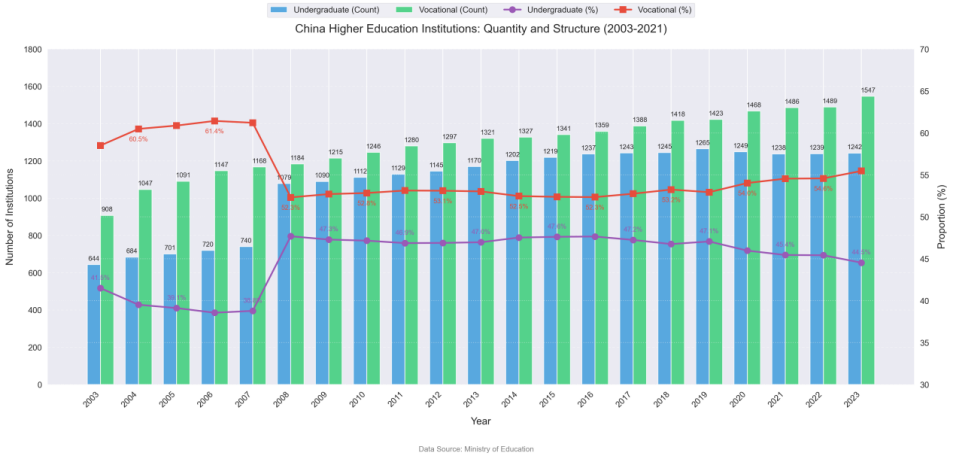

Figure 2: Comparison of the number of undergraduate universities and higher vocational education institutions

Figure 3 reveals trends through the annual enrollment figures of higher vocational colleges and undergraduate universities. Overall, enrollment in higher vocational schools grew from 1.996 million in 2003 to 5.526 million in 2021, an increase of 177%. Undergraduate university enrollment grew from 1.826 million to 4.487 million, an increase of 146%. The growth trends can be divided into three phases:

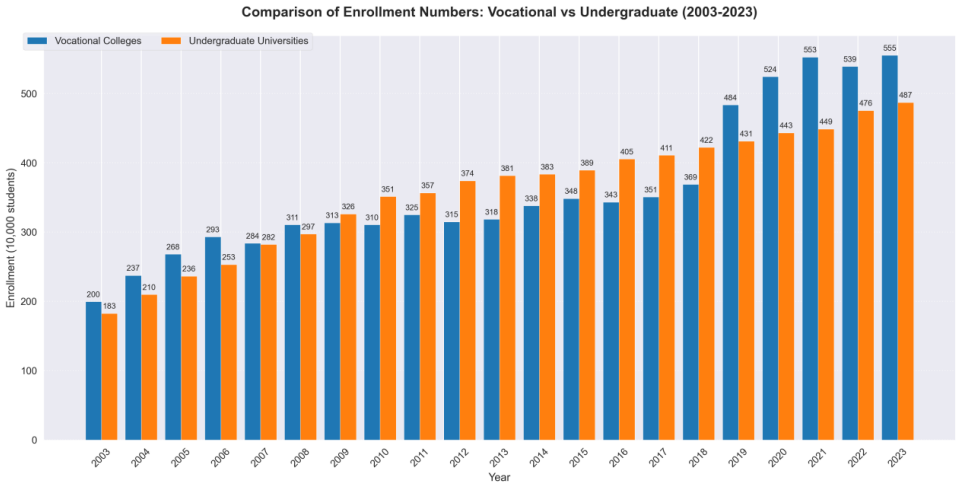

Figure 3: Gross enrollment rate of undergraduate universities and higher vocational education institutions

2003-2007: A critical turning point occurred in 2007: higher vocational colleges experienced their first negative growth (-3.14%), while undergraduate universities maintained high growth of 11.46%.

2008-2018: In 2009, the overall enrollment of higher vocational colleges fell below that

of undergraduate universities for the first time, and this gap widened slightly in the following years.

2019-2023: Administrative intervention in 2019 led higher vocational colleges to surpass undergraduate universities in enrollment for the first time since 2009. However, data from the subsequent four years shows undergraduate university enrollment continuing to rise steadily, indicating this intervention did not fundamentally change the underlying preference gap.

From 2003 to 2018, undergraduate universities grew at an average annual rate of 5.84%, leading the 4.35% growth rate of higher vocational colleges. After 2011, their growth rates converged, with higher vocational colleges and undergraduate universities growing at 2.22% and 2.33% respectively, a mere 0.1 percentage point difference. After 2021, the marginal effect of the enrollment expansion policy for higher vocational colleges weakened, while undergraduate universities regained development momentum. In 2023, higher vocational college enrollment reached 5.551 million, a mere 0.45% increase from 2021, showing significantly slowed growth. Undergraduate university enrollment reached 4.871 million, an 8.6% increase from 2021, showing accelerated growth. The gap between the two types narrowed to 680,000 (2023), down 34.6% from the peak gap of 1.039 million in 2021. Additionally, there is a mismatch between enrollment growth rates and institutional quantity growth rates. The number of higher vocational colleges grew at an average annual rate of 3.2%, while their enrollment grew at 6.1%. Undergraduate universities' quantity grew at 4.1% annually, while enrollment grew at 5.8%. Higher Vocational Education followed a development path of "expanding the base first, then scaling up," while Undergraduate Education relied more on restructuring existing institutions than establishing new ones.

Table 2.1 shows the distribution of the proportion of recruits with higher vocational education as the starting point in the civil service recruitment examinations of 31 provincial-level administrative regions in the three years from 2023 to 2025.In China, national and local civil service examinations are considered equally important unified exams as the college entrance examination. Civil service recruitment is broadly divided into two categories: one is the National Civil Service Examination for central government ministries, commissions, administrations, and bureaus to recruit staff. The other is recruitment organized by provincial Party committee organization departments, departments of human resources and social security, and civil service bureaus, recruiting staff at provincial, municipal, county, and township levels through a four-level joint examination within the province. Analyzing civil service recruitment data can reflect the employment situation of higher vocational college graduates in the job market to some extent. Table 1 shows the data collected on the number of higher vocational college graduates recruited versus the total number recruited in civil service exams across China's 31 provincial-level administrative divisions from 2023 to 2025. Three significant characteristics emerge:

Macro View: The vast majority of provincial regions have very limited recruitment proportions for higher vocational college graduates. 12 regions have an average recruitment share below 5%, 8 between 5% and 10%, 9 between 10% and 20%, and 1 between 20% and 30%. Although Qinghai Province has an exceptionally high proportion of 71.72%, its overall scale is small.

Table 2.1

Proportion of Higher Vocational College Graduates Recruited in Civil Service Exams Across 31 Provincial-Level Administrative Divisions (2023-2025)

Year	Below 5%	5%-10%	10%-20%	Above 20%	Ratio Average
2023	9	8	9	5	0.119
2024	13	6	9	3	0.084
2025	18	5	6	2	0.71

Source: Provincial Human Resources and Social Security

Trend: From 2023 to 2025, the average total recruitment increased from 6,162 in 2023 to 6,801, but the number of higher vocational college graduates recruited decreased from 689 to 481, showing a clear downward trend. This contrasts sharply with the overall expansion of recruitment. 28 out of 31 provincial regions showed a declining trend, with only 3 showing limited increases.

Regional Patterns: Provinces with similar higher vocational college recruitment ratios share distinct common characteristics. Regions with average recruitment ratios below 5% are mostly developed central and eastern provinces with relatively strong economies and higher population quality. Regions with relatively high ratios are generally border areas with lagging economic development and harsher working conditions.

Findings

The cliff-like decline in the higher education school-age birth population due to falling birth rates is an indisputable fact. Births plummeted from a peak of 29.75 million in 1963 to 9.02 million in 2023, a staggering decline of 69.68%. While global TFR is generally low, this scale of decline is unprecedented and difficult to predict for a middle-income country. Looking at a shorter timeframe, the 50%+ drop in new births between 1990 and 2020 within just 30 years represents a massive change with profound impacts not only on higher education but on the development structure of every industry. Assuming the higher education enrollment rate remains at the average level around 2023 (approx. 65%), equivalent to annual enrollments consistently exceeding 10 million, while the birth population in 2021 was only 10.62 million, the extreme scenario where higher education enrollment exceeds the size of the school-age cohort will occur around 2040. With continued expansion of enrollment plans, this situation could arise even earlier. Although multiple factors influence whether this will definitively happen, it starkly reminds policymakers that the era of rapid expansion in institutional scale and enrollment is over. Future scale must be planned based on TFR projections.

From 2003 to 2018, undergraduate university enrollment grew by 166.8%, increasing its share of total higher education enrollment from 47.8% to 53.4%. Correspondingly, higher vocational education's share decreased from 52.2% to 46.6%. The growth rate of undergraduate university enrollment was significantly higher than that of higher vocational colleges. Analyzing this reversal in dominance from an industrial perspective, the main driver was the widening gap between the vocational skills education received by general skilled workers and the skill level demanded by jobs during the refinement and upgrading of industrial division of labor under China's overall industrial transformation and upgrading. Higher vocational education was insufficiently prepared for this change,

leading to its natural decline in the overall national education landscape. Precisely because industrial change heightened the demand for high-end skilled talent, higher vocational schools were pushed towards transitioning into Vocational and Technical Universities (VTUs). Vocational education talent development showed a clear trend towards high-end specialization and refinement. During this period, enrollment scale was primarily driven by industrial demand rather than the number of institutions. The growth in the number of institutions (higher vocational schools +63.7%, undergraduate universities +92.2%) did not lead to fully synchronized enrollment expansion.

2019 demonstrated the strong influence of administrative intervention on higher education enrollment changes. The 2019 State Council Government Work Report proposed: "Reform and improve the examination and enrollment methods for higher vocational colleges, encourage more high school graduates, ex-servicemen, laid-off workers, and migrant workers to apply (Jiang & Ke, 2021), and expand enrollment by 1 million that year." Actual enrollment in higher vocational colleges increased by 1.148 million, setting the record for the largest enrollment expansion since the development of higher education in China. This fully illustrates that under China's top-down higher education management system, administrative measures have a decisive impact on enrollment structure and quantity. It also indicates that, despite the previous high growth in the number of higher vocational colleges, existing institutions and faculty still had significant elasticity to accommodate an expansion exceeding one million students without increasing their number or teaching staff.

Looking at current higher education reform policies, higher vocational colleges mainly follow three restructuring logics: merger, consolidation, and upgrading. According to the Ministry of Education's list of higher education institutions from 2019 to 2024, over six years, 55 higher vocational colleges were upgraded, merged, or closed. Among them, 9 were upgraded to undergraduate universities, 26 were upgraded to Vocational and Technical Universities (VTUs), and 12 were merged with independent colleges for restructuring. During the same period, the number of higher vocational colleges increased in 21 provincial-level regions, decreased in 7, and remained unchanged in 3.

Taking Shanxi Province in central China as an example: As of March 2025, it had 34 undergraduate universities. Since 2000, 17 of these involved the merger, consolidation, or upgrading of higher vocational schools, accounting for 50%. A timeline analysis reveals three main pathways:

Merger into Undergraduate Universities: Merging a small number of higher vocational colleges with strong specialized disciplines into relevant departments of undergraduate universities became a mainstream integration method and a relatively successful win-win reform. E.g., in February 2014, Taiyuan Electric Power College was merged into Shanxi University. This reform enhanced Shanxi University's engineering capabilities, especially in electric power, while providing upward mobility for the strong vocational college. (Proportion: 5.8%).

Direct Upgrading: Higher vocational colleges with higher teaching quality and operational capability were directly upgraded to undergraduate universities through evaluation and approval. These institutions are gradually becoming the backbone of higher education. (Proportion: 82.4%).

Consolidation into New Institutions: Consolidating multiple higher vocational colleges, particularly one independent college with two or three higher vocational colleges, to form a new undergraduate university or VTU became a new trend after 2020, as independent colleges fulfilled their historical mission. E.g., in March 2021, the independent college Shanxi University Business School consolidated with three higher vocational colleges – Shanxi Vocational & Technical College of Communications, Shanxi Vocational & Technical College of Architecture, and Shanxi Business School – to form Shanxi Vocational and Technical University of Engineering Science and Technology. (Proportion: 11.8%).

Regarding civil service recruitment, higher vocational college graduates face three characteristics: small overall scale, a continuous downward trend, and lower recruitment rates in more economically developed areas. Further analysis of position requirements reveals additional competitive pressures and conditions within the limited positions available. In terms of competition, positions open to higher vocational graduates are often "three-no-restriction" positions (no major restriction, no gender restriction, no household registration restriction). These positions also attract graduates from undergraduate universities whose majors do not match other specialized positions, leading to broader competition. In terms of position types, they are mainly concentrated in remote areas and townships, including grassroots positions with high physical demands (e.g., police officers, special police), positions in special environments (e.g., prison guards, drug rehabilitation center officers), and some positions requiring experience as village officials or in the "Three Supports and One Assistance" program (supporting education, agriculture, healthcare, and poverty alleviation in rural areas). These positions are designed to encourage youth to work in remote areas on rural governance and basic education.

Recommendations

Based on China's context of persistently low birth rates and rapid expansion of higher education enrollment, the analysis of the above data and conclusions suggests that higher vocational education must accelerate reform to adapt to the new demographic characteristics of a declining birth rate, meet the talent demands of industrial structural changes, and ensure its own survival space. Specific recommendations fall into three levels: intensifying institutional restructuring reforms, providing fair social employment opportunities, and strengthening custom-made talent training partnerships.

Intensifying Institutional Restructuring Reforms: The social recognition of higher vocational college graduates is declining year by year. Differentiated educational mechanisms will inevitably marginalize higher vocational colleges further, and unequal educational policies have created an unbridgeable gap between higher vocational education and undergraduate education. Without intensified reform, the survival space of higher vocational colleges will undoubtedly be further squeezed, leading to enrollment difficulties or even closures for some institutions. Therefore, merger and restructuring have become the necessary path for the transformation and development of higher vocational colleges.

For Strong Institutions: Colleges with strong comprehensive strength and outstanding disciplines should anchor their development goals on becoming Vocational and Technical Universities (VTUs) (Wang, 2023). Supervisory authorities should provide more policy support and financial resources to accelerate their transition from the associate degree level

to the bachelor's degree level. Such restructuring can invigorate the institution itself and serve as a model for similar colleges.

For Similar Institutions in Same Region: Higher vocational colleges in the same region with similar teaching orientations should continue to merge and consolidate, strengthening the leading position of their dominant specialties and reducing management costs.

For Underperforming Institutions: Institutions with evident problems in teaching capability, faculty allocation, and graduate reputation should boldly adopt an elimination mechanism. Teachers and administrative staff assessed as competent should be transferred to other institutions. Personnel deemed unsuitable should be properly reassigned, balancing the need to improve overall educational efficiency with maintaining social stability.

Providing Fair Social Employment Opportunities: Graduates from higher vocational colleges are currently stigmatized to some extent as incapable of undertaking advanced management or high-level technical work. Both public institutions and private enterprises offer fewer and fewer job opportunities for them. Civil service recruitment is widely regarded as a bellwether, capable of leading changes in social values and helping to eliminate workplace discrimination based on educational background. If higher vocational college graduates cannot compete for most national civil service positions, fairness is unattainable. Therefore, fundamentally solving the employment environment problem requires creating an employment atmosphere led by the government, driven by enterprises, and involving all employers in society.

Government Leadership: Setting up more grassroots management or service positions open to higher vocational college graduates and providing fair competition opportunities with undergraduate university graduates would have a strong demonstration effect.

Talent Subsidies: Including higher vocational college graduates within the scope of various levels of talent subsidies would enhance their social respect and reduce hiring costs for enterprises.

Strengthening Custom-Made Talent Training Partnerships: The mismatch between the capabilities of higher vocational college graduates and the requirements of employer positions has become a major bottleneck restricting their employment. Over the forty-plus years of reform and opening up, China's economy has experienced rapid growth. All industries have undergone multiple rounds of self-renewal. The secondary industry has upgraded comprehensively from traditional labor-intensive, mechanical, low-end production to digital, intelligent, and high-end manufacturing. The tertiary industry has rapidly expanded its share of the national economy with a more optimized structure. Regardless of the industry type, the demand for talent capabilities has significantly increased. The rise of emerging industries has particularly driven demand for interdisciplinary talent. Labor shortages in regions concentrated with labor-intensive industries are an undeniable fact (Bai & Lei, 2019). Despite this, there remains a huge gap for talent who have received higher vocational education and possess genuine practical operational skills. The mismatch between what is learned in school and job requirements is a major obstacle. When vocational skill talent only needs simple on-the-job training because their acquired qualities and skills directly fit the job, it effectively reduces corporate hiring costs and improves overall societal operational efficiency. Cooperation

between institutions and enterprises to implement employment-oriented (Du, 2021), custom-made talent training programs is the most effective way to align industry demand with talent cultivation outcomes.

Overall, higher vocational education is an indispensable part of higher education and the main pathway for cultivating talent for foundational positions across various industries (Suharno et al., 2020). When the demographic environment undergoes profound changes, only by actively seeking innovation and transformation can higher vocational education overcome its development dilemma, secure its survival space, and genuinely cultivate talent needed by society.

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