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Research on the High-Quality Development Path of Vocational Education in Jiangxi Under the Dual Circulation Pattern——Based on the Collaborative Construction of Innovation Mechanisms and Supporting Systems

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Abstract: The dual circulation pattern is influencing the economic development of Jiangxi Province, mainly reflected in adjusting the industrial structure, optimizing the industrial chain, and expanding domestic demand. This means Jiangxi's vocational education must make adjustments to meet the talent needs of economic development. However, Jiangxi Province still faces many problems in government policy empowerment, integration of production and education, teaching staff, and cultural concepts. To effectively solve these problems, this study explores pathways for high-quality development of vocational education in Jiangxi Province under the dual-circulation framework. By examining collaborative mechanisms and supporting systems, it focuses on: improving industry-education integration frameworks, building industry-education partnerships, engaging stakeholders in educational initiatives, innovating teaching models and evaluation methods, establishing dual-qualified faculty management systems, and facilitating cross-regional and cross-school teacher mobility to address uneven distribution of teaching resources.

Keywords: Dual Circulation; Vocational Education; High-Quality Development; Innovation Mechanism; Supporting System

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1.Introduction

Against the background of global economic structure adjustment and China's high-quality economic development, the Party Central Committee has proposed giving full play to the advantages of China's super-large-scale market and gradually forming a new development pattern with the domestic big cycle as the main body and the domestic and international dual cycles promoting each other. The "Education Power Construction Plan Outline (2024-2035)" proposes accelerating the construction of a modern vocational education system and cultivating great power craftsmen, skilled craftsmen, and high-skilled talents. Under the background of "dual circulation" and "high-quality development of vocational education", how to provide talent support for Jiangxi's economy through vocational education has become an urgent proposition in the development of vocational education in Jiangxi Province.

2.Analysis of Existing Problems in the Development of Vocational Education in Jiangxi

2.1 Government Policy Empowerment: "Strong" but Not "Effective"

In April 2025, Jiangxi Province issued the Notice on the "Three-Year Action Plan for Vocational Education Teaching and Scientific Research Work (2025-2027)", providing policy support for the high-quality development of vocational education in Jiangxi Province. In July 2025, Jiangxi Province issued the Notice on the "Implementation Plan for Vocational Education College Entrance Examination in Jiangxi Province", improving the vocational education college entrance examination system and promoting the integration of vocational and general education. A series of policies issued by Jiangxi Province show the importance attached to vocational education. However, the policies are "strong" but not "effective". Firstly, the accuracy of policy and financial support is insufficient, leading to unbalanced regional development of vocational education. Secondly, the sustainability of policies is lacking, and they have not been fully transformed into school-running vitality. Thirdly, there is a lack of collaborative school-running capacity among multiple subjects mentioned in the policies.

2.2 Integration of Production and Education: "Schools Are Enthusiastic, Enterprises Are Cold"

During the "14th Five-Year Plan" period, Jiangxi has 73 higher vocational colleges, including 5 vocational undergraduate colleges and 68 higher vocational colleges [1]. In 2025, provincial higher vocational colleges plan to set up 279 new higher vocational specialty points, of which science, engineering, agriculture and medical specialty points account for 84.9%, and specialty points serving the "1269" Action Plan account for 77.8%. Centering on key industries such as non-ferrous metals, electronic information, and ceramics, 30 high-quality and distinctive integrated production-education golden specialties (groups) in vocational education have been selected and constructed [2]. In the process of the rapid development of the integration of production and education in Jiangxi Province, there is also a phenomenon of "schools are enthusiastic, enterprises are cold". The integration of production and education is a process involving multiple subjects, and the interest demands of various school-running subjects are different. Higher vocational colleges aim at talent training with a three-year cycle for talent cultivation; enterprises aim at profit, and talent training is adjusted according to enterprise development. Therefore, in the school-enterprise cooperative school-running, the interests of the two parties conflict, and enterprises are likely to resist school-enterprise cooperative school-running due to high costs.

2.3 "Double-Qualified" Teachers: Small Number and Uneven Distribution

The "2024 List of Proposed Recognition of 'Double-Qualified' Teachers in Jiangxi Province (Higher Vocational Colleges)" released in 2024 shows that there are 3,954 "double-qualified" teachers in the province, including 2,378 primary teachers, 837 intermediate teachers, and 739 senior teachers [3], with primary teachers accounting for 60.14%, intermediate teachers 21.17%, and senior teachers 18.69% (see Table 1). There are several problems: firstly, the total number of "double-qualified" teachers is insufficient, and the proportion of teachers with senior titles is low. Secondly, the distribution of "double-qualified" teachers is uneven. Firstly, the distribution among schools is uneven. Jiangxi Manufacturing Vocational and Technical College has the largest number of "double-qualified" teachers, with 250, while Jiangxi Engineering Vocational College has the smallest number, with 2 (see Table 2), and the number of "double-qualified" teachers varies greatly among colleges and universities. Secondly, the regional distribution is uneven. The "double-qualified" teachers in Jiangxi Province are mainly concentrated in higher vocational colleges in Nanchang, with fewer distributions in other regions. Finally, the proportion of "double-qualified" teachers in science and engineering is relatively small. Taking the major categories of equipment manufacturing, energy power and materials, and electronics and information as examples, "double-qualified" teachers account for 24.2% in total, including 332 in the equipment manufacturing category, 66 in energy power and materials, and 560 in the electronics and information category(see Table 3)， The existing teaching staff level cannot well meet the current economic development situation of Jiangxi Province.

Table 1: Proportion of Primary, Intermediate, and Senior "Double-Qualified" Teachers in Jiangxi

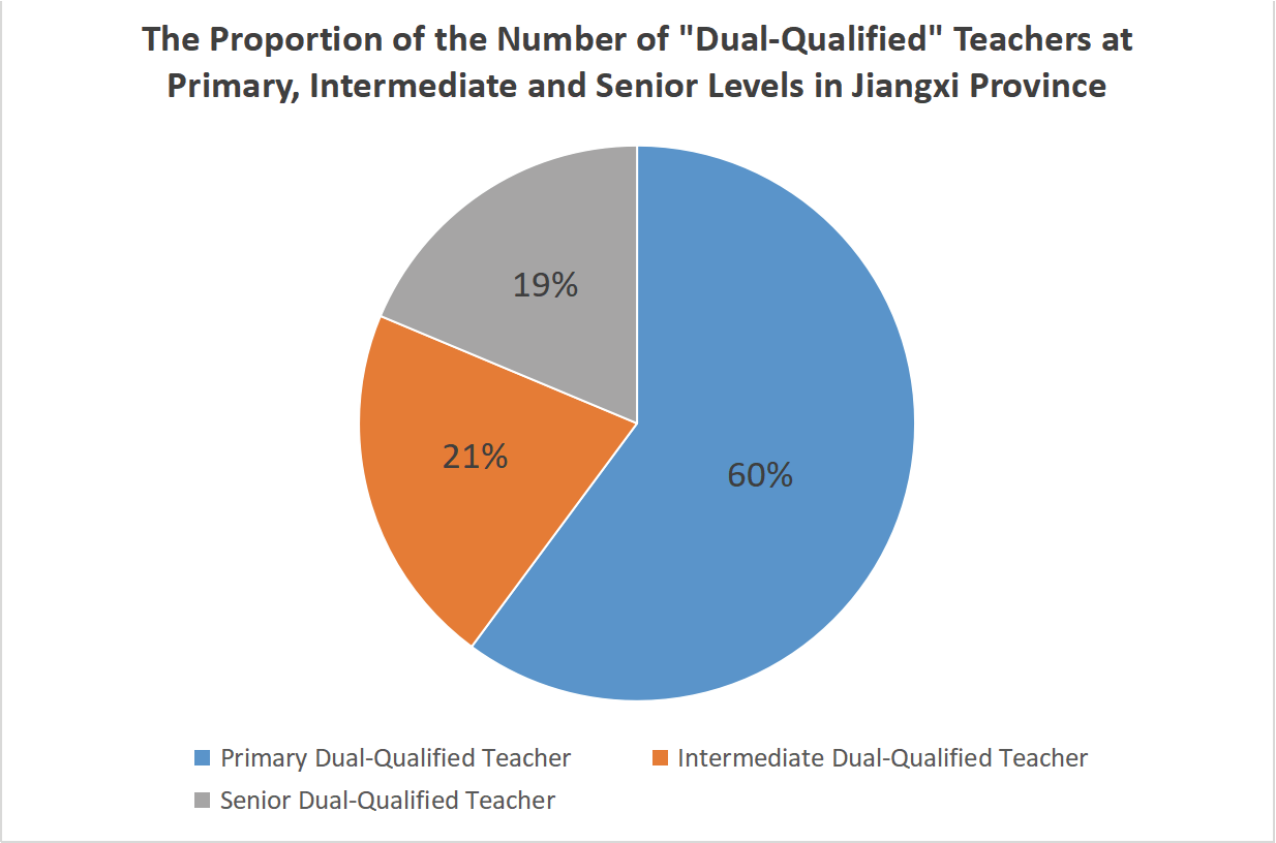


Table2:Summary of the Number of "Dual-Qualified" Teachers in Various Higher Vocational Colleges

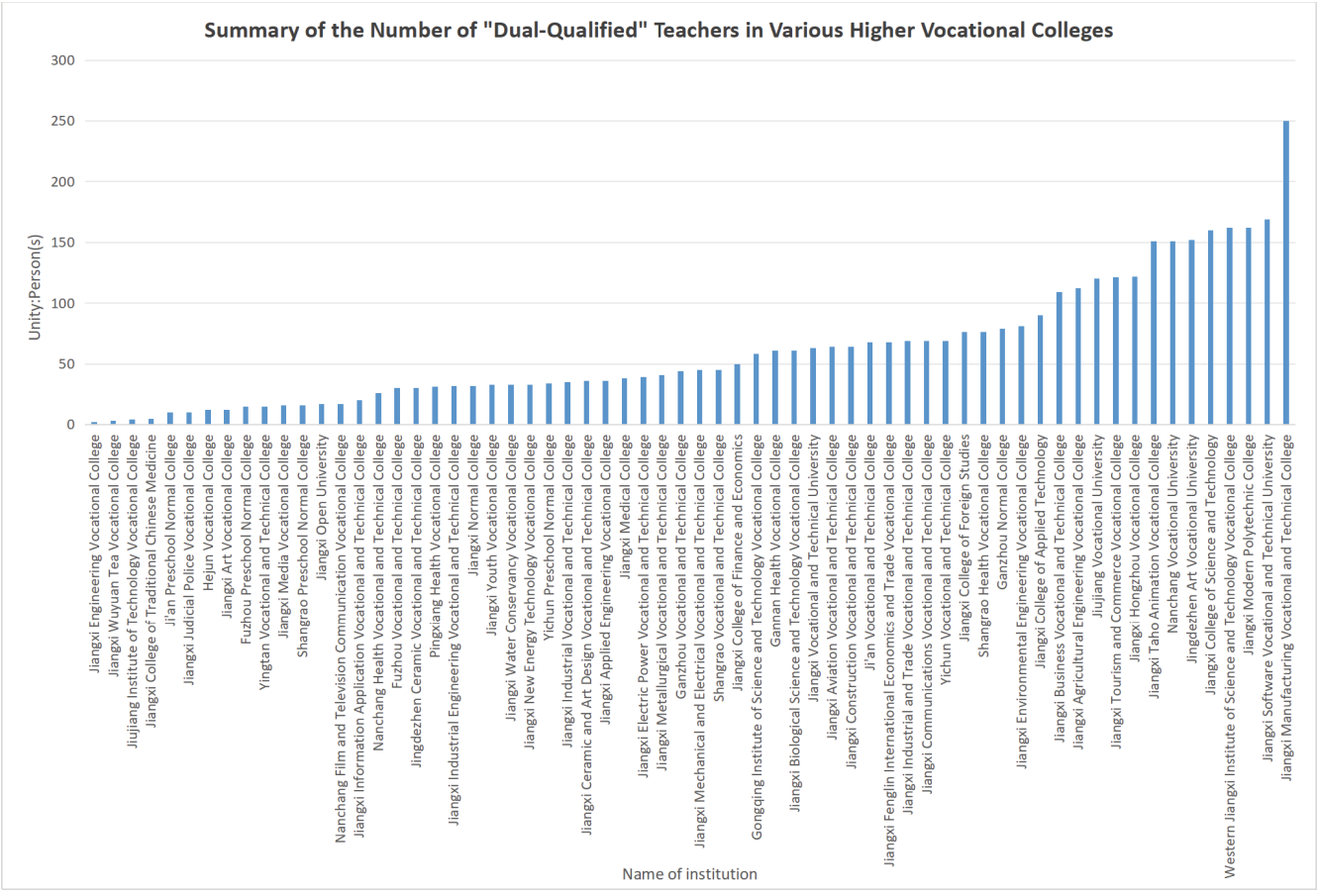
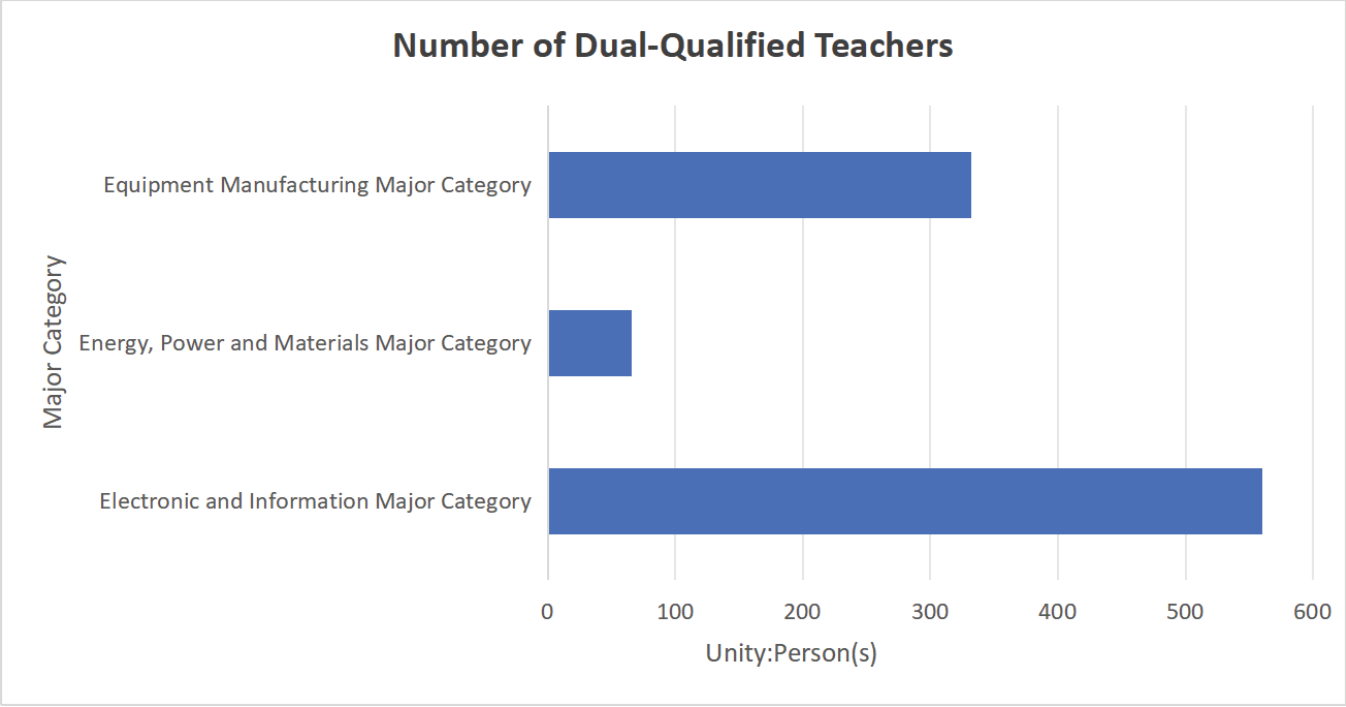


Table 3: Summary of the Number of "Dual-Qualified" Teachers in Equipment Manufacturing, Energy, Power and Materials, and Electronic and Information Major Categories in Jiangxi Province



2.4 Conceptual Breakthrough: Vocational Education Stigma

According to relevant survey data: among 2,765 respondents nationwide, more than half (55.3%) agree with the view that "vocational and general education 'streaming' is equivalent to 'stratification'"; about 50% (50.1%) agree that "skilled workers are not as glamorous and decent as 'white-collar workers'"; nearly half (45.4%) believe that "the importance of vocational education is still not fully recognized" [4]. Although Jiangxi's vocational education has achieved good results in various vocational skills competitions, the phenomenon of vocational education stigma still exists. There are many reasons for this phenomenon, the most important of which is the low salary level and job status. Through comparison, it is found that the monthly salary level of skilled workers in Jiangxi Province is quite different from that in Hong Kong, China and some developed countries (see Table 4).

Table 4: Comparative List of Monthly Salaries of Skilled Workers in Jiangxi, Hong Kong, China and Some Developed Countries

Country	Typical Occupations	Pre-tax monthly salary range (Unity:$)
Jiangxi Province, China	Electrician	845-1,408
Hong Kong , China	Mechatronics Technician	2,662-3,944
Japan	Automotive Repair Technician	2,535-3,662
America	Certified Electrician	4,085-6,761
Britain	Plumber	3,239-4,930
Germany	Electrical Technician	4,225-5,915
Australia	Certified Electrician	4,930-6,761

3.Research Review on the High-Quality Development of Vocational Education Under the Dual Circulation Pattern

At present, the high-quality development of vocational education is an inevitable trend under the dual circulation pattern. Scholars have carried out research from aspects of policies, teaching staff, integration of production and education, and internationalization of vocational education. Firstly, research on the direction of high-quality development of vocational education. Ma Shuo (2022) explored the path of high-quality development of vocational education under the dual circulation pattern from the perspective of integrated development of internationalization and localization [5]; Huang Yayu (2025) pointed out that the embedded development of integration of vocational and general education and integration of production and education is conducive to talent flow and integration, thereby promoting the high-quality development of vocational education [6]. Secondly, research on the practical challenges faced by the high-quality development of vocational education. Su Hui (2022) pointed out that China is facing challenges such as a large gap in innovative skilled talents, insufficient matching between talent supply and demand and market demand, higher requirements for vocational education to serve economic modernization, and more complex needs for the sustainable development of vocational education [7]. Thirdly, research on countermeasures for the high-quality development of vocational education. Wu Siqi (2024) proposed countermeasures from the perspective of constructing a talent training model, such as opening up academic channels, doing a good job in the integration of vocational and general education; integrating vocational knowledge and practical knowledge, academic certification and vocational qualification certification; improving textbooks and teaching methods, and implementing a teaching model combining training and education [8]. By exploring the collaborative construction of vocational education innovation mechanisms and supporting systems, this paper helps the high-quality development of vocational education and provides knowledge-based, skilled and innovative compound talents for the economic development of Jiangxi Province.

4.Countermeasures for the High-Quality Development of Vocational Education in Jiangxi

4.1 Promote the Construction of Vocational Education Innovation Mechanisms

First, we will improve the mechanism for dynamic adjustment of majors. The “Opinions on Deepening the Reform of the Education System and Mechanism” clearly proposes promoting the formation of a talent training model with vocational education characteristics and improving the dynamic professional adjustment mechanism; the “Several Measures for Jiangxi Province to Deepen the Reform of Vocational Education and Technical and Vocational Education to Serve the High-Quality Development of the Industry” points out optimizing the dynamic professional adjustment mechanism; the “Implementation Plan for Optimizing the Layout and Structure of Higher Vocational College Specialties in Jiangxi Province” proposes that by 2025, the number of existing specialty points in higher vocational colleges will be optimized and adjusted by more than 20%, and the number of new specialty points will exceed 60%, serving the “1269” Action Plan and provincial key industrial chains [9].

In 2024, the Jiangxi Provincial Department of Industry and Information Technology organized the compilation of the “2024 List of Shortage Talents in Key Manufacturing Industrial Chains in Jiangxi Province” (hereinafter referred to as the “List”), identifying 190 positions in the province that are highly related to 12 key industrial chains and have a large demand for talents, divided into three levels: “shortage”, “very shortage”, and “particularly shortage” [10] (see Table 5).Among them, “particularly scarce” majors accounted for 55.26%. Jiangxi Province should timely adjust professional settings according to the content of the “List”, establish a talent demand list release mechanism led by human resources and social security departments, with the participation of industry competent departments, third-party institutions, key enterprises and other parties, and industry competent departments regularly release talent demand information. According to the forecast of job demand, guide schools to add urgently needed specialties, and eliminate or transform outdated specialties. For example, some higher vocational colleges in Jiangxi Province have timely revoked or suspended enrollment of some specialties and added some specialties (see Table 6) to actively connect with the national “Intelligent Manufacturing 2025” and Jiangxi Province’s “1269” Action Plan, cultivate a large number of high-quality applied, compound and innovative talents who can adapt to and lead the development of modern industries, and promote the further development of the industrial structure towards a “tertiary, secondary, primary” structure [11].

Table 5: 2024 Annual Summary of Shortage Positions in Key Industrial Chains of Manufacturing Industry in Jiangxi Province

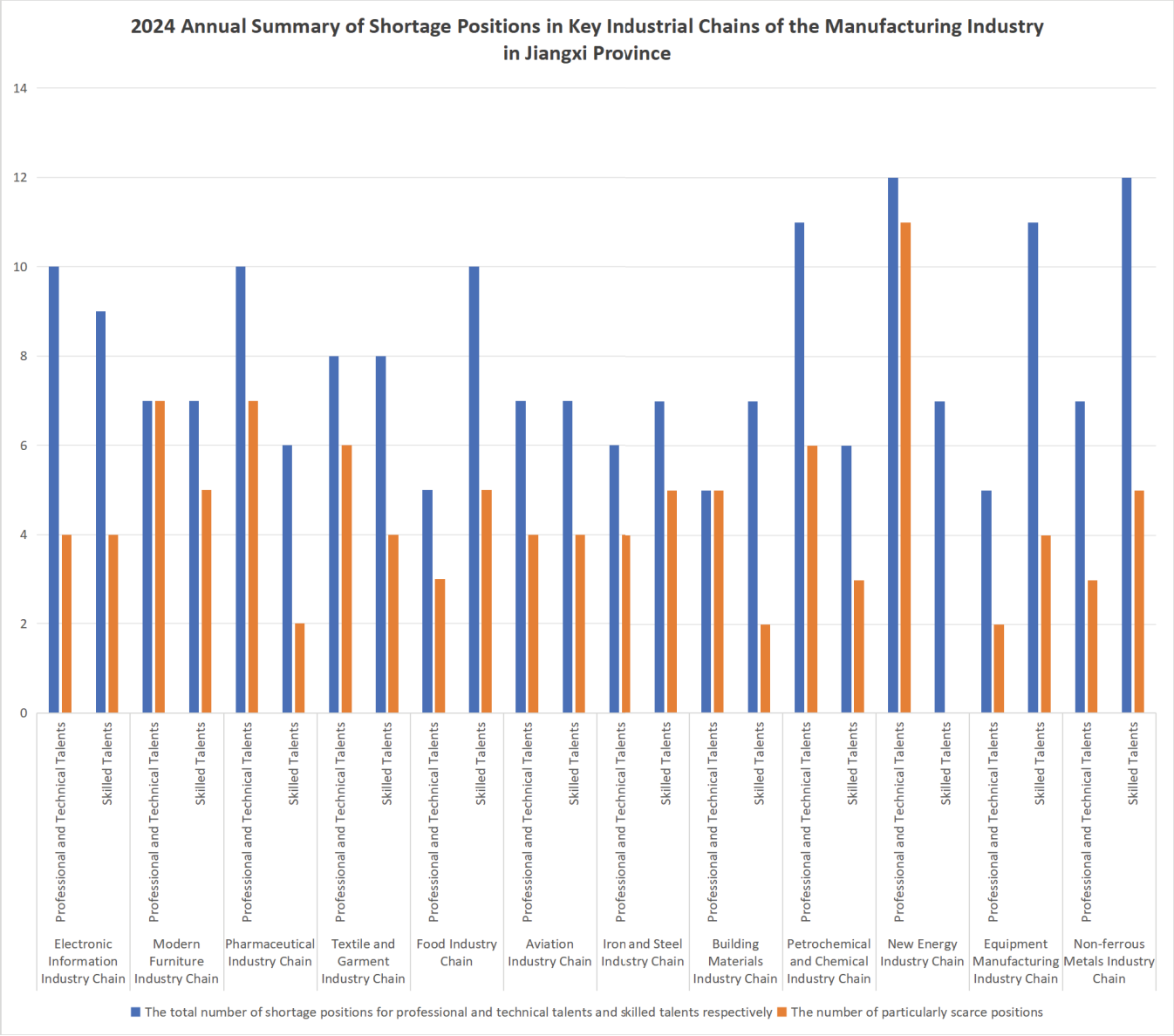


Table 6: Names of Withdrawn, Suspended and Newly Added Majors in Some Higher Vocational Colleges in Jiangxi Province

Serial Number	List of Higher Vocational Colleges	Names of Withdrawn/Suspended Majors	Names of Newly Added Majors
1	Jiangxi Modern Polytechnic College	Financial Service and Management, Environmental Monitoring Technology, Building Materials Testing Technology, Garden Engineering Technology	Industrial Internet, Industrial Robotics Technology, Digital Design and Manufacturing, Automobile Inspection and Maintenance Technology
2	Jiangxi Manufacturing Polytechnic College	International Economics and Trade	Omnimedia Advertising Planning and Marketing, Intelligent Mechatronics Technology
3	Jiangxi Agricultural Engineering College	Engineering Cost, Modern Logistics Management	/
4	Jiangxi Biological Vocational College	Automobile Inspection and Maintenance Technology, Tourism Management, Leisure Agriculture Operation and Management	/

Secondly, Improve the School-Running Mechanism of Integration of Production and Education. Stimulate the endogenous motivation of enterprises in Jiangxi Province to actively participate in the integration of production and education. Schools and enterprises jointly formulate professional talent training programs, and implement talent training models such as "order classes", "modern apprenticeship pilot projects", and "field engineers" under the background of the transformation of old and new kinetic energy; form an integrated production-education community. Talent training in the integrated production-education community should cover multiple stakeholders such as government departments, enterprise organizations, and institutional groups, and form a multi-directional interaction and virtuous cycle talent training model under the background of win-win cooperation [12].

Thirdly，Implement the work-study combination teaching model. Schools and enterprises cooperate to establish internship and training bases, carry out high-quality "work-based learning", allow students to learn professional knowledge and skills by completing typical work tasks of vocational positions around learning objectives, and improve their professional comprehensive quality and operational capabilities [13]; actively set up learning factories to combine formal learning and informal learning. Carry out work-study combination teaching evaluation. With industry organizations as the leading body and multiple participating evaluation subjects, convert learners' learning achievements from different sources into credits, store them in the "credit bank", and realize the certification, accumulation and conversion of learning achievements.

Fourthly, establish the Management Mechanism of "Double-Qualified" Teachers. Accelerate the improvement of the teacher training system, focusing on two key issues: insufficient total number of teachers and structural shortage of science and engineering teachers. On the one hand, broaden the training entry channels and open up the transformation channel "from industry talents to teachers", jointly build "double-qualified" teacher training bases with enterprises and scientific research institutions, carry out training for existing teachers to improve teaching skills and update subject knowledge, especially strengthen the training of practical teaching capabilities of science and engineering teachers, so that the training content can be accurately connected with industrial needs and teaching practice. On the other hand, construct a regional teacher resource sharing mechanism, divide teacher cooperation areas with Nanchang as the unit, promote developed areas and underdeveloped areas, cities and rural areas to sign teacher assistance agreements, form cross-regional teaching teams, and directly supplement the teacher resources in weak areas by regularly selecting excellent teachers for teaching support and on-site teaching. Promote the "strong supporting the weak" through college-university cooperation, focusing on giving play to the radiation and leading role of high-quality colleges and universities to narrow the teacher gap among different colleges and universities.

4.2 Accelerate the Construction of Supporting Systems

Build a social support system based on vocational colleges, including government, enterprises, professional institutions (organizations) and families.

Firstly, construct a social support system based on vocational colleges, including governments, enterprises, professional institutions (organizations) and families. policy formulation should not only guide the high-quality development of vocational education at the macro level, but also provide operational guarantees and support for specific problems in implementation; the Jiangxi Provincial Government can introduce corresponding laws and policies, clarify the powers and responsibilities of multiple school-running subjects, supervise the quality of talent training of subjects participating in vocational education, and promote the high-quality development of vocational education; increase the channels for the integration of vocational and general education, provide learners with various learning opportunities, build a "credit bank" so that the learning achievements obtained by learners in the workplace and communities can be recognized and converted, and establish a lifelong learning system.

Secondly, corresponding policy and financial support should be provided to enterprises actively participating in school-enterprise cooperative school-running to stimulate their motivation to participate in school-running. A special fund for vocational education can be established to give key support to vocational education characteristic school-running projects carried out in various cities.

Professional institutions (organizations) can provide curriculum development assistance for the shortage specialties in Jiangxi Province; actively develop "Professional Curriculum Standards" and "Professional Teaching Standards" to help vocational

colleges better carry out teaching of related specialties.

Thirdly, actively carry out vocational education lectures to introduce the employment prospects of vocational education, alleviate parents' anxiety about vocational education; various communities actively organize parents and students to visit higher vocational colleges, introduce the professional curriculum arrangements and employment scenarios of the schools to parents and students, and enhance their confidence in vocational education.

Fourthly, the Jiangxi Provincial Government, together with higher vocational colleges, industry organizations, top academic talents and "double-qualified" teachers, jointly record high-quality MOOCs, make full use of the National Smart Education Public Service Platform to develop online teaching resources for vocational education professional courses, practical courses and teacher training, use artificial intelligence technology to develop virtual simulation training, and jointly carry out an "online + offline" teaching model; break the limitations of traditional education in time, space and content. Create public products such as the World Digital Education Conference, the World Digital Education Alliance, the Global Digital Education Development Index, and authoritative digital education journals; actively host various vocational skills competitions to improve the international influence of Jiangxi's vocational education and promote its high-quality development.

4.3 Promote the Collaborative Construction of Innovation Mechanisms and Supporting Systems

The collaborative construction of innovation mechanisms and supporting systems essentially enables the "endogenous motivation" and "external guarantee" of vocational education to form a joint force through "policies setting directions, resources providing strong support, evaluation ensuring quality, and learning expanding dimensions". It not only avoids the "hanging in the air" of innovation mechanisms due to the lack of supporting support, such as professional adjustment without policy funds and integration of production and education without clear powers and responsibilities, but also prevents the "rigidity" of supporting systems due to the separation from mechanism practice, such as the disconnection between the evaluation system and talent training needs.

This collaborative construction will ultimately promote Jiangxi's vocational education to accurately respond to the talent needs of domestic industrial transformation, effectively serve the internationalization of vocational education and talent flow in the international cycle, and truly realize the goal of "mechanism innovation - system support - dual circulation adaptation - high-quality development".

5.Conclusion

Improve the dynamic professional adjustment, focus on the shortage professional types of Jiangxi's key industries, pay attention to related industries such as non-ferrous metal industry, new energy industry and electronic information industry, and reasonably add specialties in higher vocational colleges; improve the school-running mechanism of integration of production and education, construct an integrated production-education community, guide stakeholders to participate in school-running, and carry out new teaching models and teaching evaluation methods; establish a management mechanism for "double-qualified" teachers to realize the cross-regional and cross-school flow of teachers and solve the practical problem of uneven teacher distribution. Build a system supporting system for the mechanism innovation of vocational education. The Jiangxi Provincial Government can provide policy and financial support for the development of vocational education, consider multiple stakeholder communities, encourage professional institutions (organizations) to develop relevant curriculum standards and digital teaching resources, stimulate the vitality of enterprises to participate in school-running, alleviate social anxiety about vocational education, and jointly promote the high-quality development of vocational education in Jiangxi Province.

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Conflict of Interests

The authors declare that there is no conflict of interest regarding the publication of this paper.

Reference

[1] Jiangxi News. (2025, October 11). Jiangxi: Promoting the quality and excellence of vocational education to enhance service and development capacity. https://sdxw.iqilu.com/share/YS0yMS0xNjgxMDgxNA.html

[2] Jiangxi Provincial Department of Education. (2025, May 19). Integration of industry and education cultivates skilled workers: Special observation of Jiangxi Vocational Education Week 2025. http://jyt.jiangxi.gov.cn/jxjyw/gzdt2/pc/content/content_1924349841431904256.html

[3] Jiangxi Provincial Department of Education. (2024, December 2). Announcement of the proposed recognition list of "dual-qualified" teachers in Jiangxi Province for 2024. http://jyt.jiangxi.gov.cn/jxjyw/tzgg785/content/content_1869120591952535552.html

[4] People's Tribune. (2024). Public cognition and expectation survey report on vocational education (2024). People's Tribune, (24), 50–53. https://doi.org/10.3969/j.issn.1004-3381.2024.24.010

[5] Ma, S., Yan, X. Y., & Wang, N. Y. (2022). Research on the integrated development of internationalization and localization of vocational education under the new development pattern of "dual circulation." Journal of Xingtai Polytechnic College, 39(01), 42–45. https://doi.org/10.3969/j.issn.1008-6129.2022.01.010

[6] Huang, Y. Y., Long, J., & Zhao, Q. H. (2025). The construction path of embedded vocational education system integrating vocational and general education and production and education under the dual circulation pattern. Education Science Forum, 41(30), 48–53. https://doi.org/10.3969/j.issn.1673-4289.2025.30.010

[7] Su, H., & Xiang, M. D. (2022). Connotation, challenges and paths of deepening the integration of production and education in vocational education from the perspective of "dual circulation." Vocational and Technical Education, 43(10), 41–46. https://doi.org/10.3969/j.issn.1008-3219.2022.10.008

[8] Wu, S. Q. (2024). Research on the "one connection, two integrations and three educations" talent training model of vocational education in the "dual circulation" pattern. Journal of Hunan Industry Polytechnic, 24(03), 88–94.

[9] Jiangxi Provincial Department of Education. (2025, August 13). Notice on the issuance of the implementation plan for the adjustment and optimization of professional layout in Jiangxi higher vocational colleges (2023–2025). https://www.jxdzxy.com/jwc/info/1032/1857.htm

[10] Jiangxi Provincial Department of Industry and Information Technology. (2024, April 25). Publication of the 2024 key talent catalog for Jiangxi's manufacturing industry chains. https://www.jxfzdx.gov.cn/art/2024/4/25/art_22364_4168128.html

[11] Li, C. Y. (2024). Analysis of the industrial structure adjustment path in Nanchang under the new development pattern of "dual circulation." Market Modernization, (13), 140–142. https://doi.org/10.14013/j.cnki.scxdh.2024.13.037

[12] Guo, M. X. (2025). Optimization strategies of the talent training model in the integration of production and education community from the perspective of new quality productivity. Industrial Innovation Research, (10), 195–197.

[13] Zhao, Z. Q., & Li, S. (2025). An important way of the work–study combination talent training mechanism: Learning factory. Vocational Education Forum, 41(09), 45–53.