

Research on the Precise Strategies for Employment and Entrepreneurship Services for College

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Abstract: With the deepening popularization of higher education, the number of college graduates increases year by year, and their employment and entrepreneurship needs present unprecedented characteristics of diversification and personalization. Traditional standardized and large-scale service models face severe challenges. Based on the concept of precision services, this paper systematically explores innovative paths for the employment and entrepreneurship services of college graduates. The article first analyzes the core dilemmas currently faced by graduates in the job market and entrepreneurial environment. It then constructs a precision service framework covering multiple dimensions such as precise identification, intelligent matching, curriculum restructuring, collaborative education, and effectiveness evaluation. Finally, it proposes a series of actionable implementation strategies aimed at enhancing the targeting and effectiveness of employment guidance services through data-driven and personalized provision, ultimately promoting fuller and higher-quality employment and entrepreneurship for graduates.

Keywords: College Graduates; Employment and Entrepreneurship Services; Precision Strategy; Personalized Guidance

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1. Introduction

College graduates, as an important national human resource, have their employment and entrepreneurship situation directly impacting the quality of higher education and social development stability^[1]. In recent years, the scale of higher education in China has continued to expand, with the number of graduates exceeding ten million, reaching a historical peak particularly for the class of 2023. However, against the backdrop of complex and changing domestic and international economic environments and accelerated industrial restructuring, the job market exhibits a structural contradiction where “difficulty finding jobs” coexists with “difficulty recruiting,” reflecting a significant mismatch between talent supply and market demand. Simultaneously, the graduate population, primarily composed of the “post-00s generation,” shows more diverse career attitudes and employment choices. Some prefer stable positions within government-affiliated institutions, others favor emerging fields or self-employment, and still others focus on academic advancement, demonstrating highly heterogeneous demand characteristics^[2]. This trend towards personalization and diversification makes it difficult for traditional extensive, standardized employment and entrepreneurship service models to adapt to new requirements, and the contradiction between generalized service provision and refined student needs is becoming increasingly prominent^[3].

In this context, promoting the transformation of employment and entrepreneurship services towards precision and intelligence

is imperative. Precision services, supported by data and centered on students, optimize resource allocation and achieve efficient person-job matching through precise identification of individual characteristics and market demands^[4]. This is not only a key path to alleviating structural employment contradictions but also an important measure to enhance the adaptability of university talent cultivation and promote the connotative development of higher education. Based on this, this study intends to systematically analyze the practical problems currently faced by college graduates in employment and entrepreneurship, construct a precision service framework, and propose targeted implementation strategies, hoping to provide reference for improving the quality and efficiency of university employment work^[5].

2. The Realistic Dilemmas of Employment and Entrepreneurship for College Graduates and the Necessity of Precision Services

2.1 In-depth Analysis of Realistic Challenges

The difficulties confronting college graduates in employment and entrepreneurship are multi-level and systemic, primarily manifested in the following aspects:

The structural imbalance between talent supply and market demand has become increasingly pronounced. Higher education maintains relatively stable disciplinary structures and curricular systems due to inherent program cycles, while emerging industries and new business models evolve rapidly. This creates a challenge for universities in promptly addressing the urgent demand for core technical talents and interdisciplinary professionals in cutting-edge fields such as artificial intelligence and big data. Meanwhile, graduates from certain traditional disciplines encounter limited job opportunities due to market saturation. Furthermore, a significant gap exists between graduate competencies and workplace requirements. Many students possess theoretical knowledge but lack practical skills, innovative thinking, teamwork abilities, and other essential soft skills, making it difficult to adapt quickly to actual job demands.

The conflict between standardized service models and individualized graduate needs has become increasingly acute. Current employment and entrepreneurship services in many universities demonstrate considerable path dependency, predominantly relying on large-scale job fairs and generic lectures—a “one-size-fits-all” approach. While achieving broad coverage, these models fail to address the diverse needs of students from different academic backgrounds and career orientations. For instance, the guidance and resources required by students pursuing grassroots employment substantially differ from those needed by candidates targeting multinational corporations. Entrepreneurship education commonly prioritizes theoretical knowledge over practical application and breadth over depth. Although entrepreneurial activities appear diverse, the general lack of targeted incubation guidance and sustained support mechanisms undermines their practical effectiveness.

Fragmented information and inadequate decision-making support significantly hamper service efficacy. Graduates frequently struggle to filter through overwhelming amounts of disjointed recruitment information and policy announcements, where information overload paradoxically increases decision-making costs. Moreover, the absence of efficient information-sharing mechanisms among universities, employers, and government departments creates significant “information silos.” This impedes universities’ ability to stay current with industry trends and precise corporate needs, while simultaneously preventing companies from gaining accurate insights into institutional talent development. Additionally, the lack of effective integration and analysis of employment service data within universities results in management decisions based predominantly on experiential judgment. This approach hinders scientific evaluation of service outcomes and trend forecasting, consequently limiting the foresight of optimization strategies and policy adjustments.

2.2 The Intrinsic Value and Core Concepts of Precision Service

Facing the above challenges, promoting employment and entrepreneurship services towards precision is not only an upgrade of technical means but also a profound transformation of service philosophy. Its core value lies in shifting from pursuing “scale effects” to “scope effects,” and from a “management-oriented” to a “service-oriented” approach.

Precision services first help optimize resource allocation. By accurately identifying student needs, limited resources can be concentrated on the groups most in need of assistance (e.g., those with employment difficulties, strong entrepreneurial intentions) and the most critical links (e.g., job recommendations, personalized counseling), thereby improving service efficiency. Secondly, it can significantly enhance students’ sense of fulfillment and success. Tailored guidance helps students

clarify their positioning and improve their abilities. The experience of “being seen and supported” helps stimulate endogenous motivation, thereby improving the effectiveness of employment and entrepreneurship. Finally, this model promotes the formation of a linkage feedback mechanism encompassing “student recruitment - cultivation - employment.” Data on employment quality and career development accumulated during the service process provide a basis for decision-making regarding major setting and curriculum reform, continuously enhancing the social adaptability of talent cultivation.

The core concepts of precision services can be summarized as “data-driven, individual care, whole-process tracking, and dynamic optimization.” It emphasizes using information technology to achieve precise profiling and intelligent management, using personalized support to respond to students’ unique needs, using whole-process services to achieve continuous empowerment, and using continuous evaluation to drive strategy iteration, maintaining the system’s vitality.

3. Framework for Constructing a Precision Service System for Graduate Employment and Entrepreneurship

Constructing a scientific, efficient, and sustainable precision service system requires top-level design and overall planning from a systems theory perspective. This system should be a multi-level, multi-stakeholder, online-offline integrated organic whole. Its core architecture can consist of the following five interconnected and mutually supportive layers:

Data Perception and Profiling Layer (Foundation Layer): This is the cornerstone of the entire precision service system. The goal is to achieve comprehensive, dynamic data collection and precise characterization of individual students, market demands, and service processes. Specifically, for individual students, it is necessary to integrate comprehensive data from their academic careers, including but not limited to: academic performance across subjects, records and evaluations of internship and practical experiences, research achievements and competition awards, performance in club activities and social work, acquisition of vocational skill certificates, psychological assessment results, vocational tendency assessment data, and even behavioral data (e.g., from campus card usage) indirectly reflecting lifestyle patterns and potential difficulties. Using big data technologies and algorithmic models, these multi-source heterogeneous data are fused and analyzed to build a dynamically updated, multi-dimensional “digital profile” for each student, clearly presenting their knowledge structure, skills and strengths, interests and preferences, personality traits, career values, and potential development needs. For market demand, it is necessary to establish enterprise and position databases, continuously collect and structurally process recruitment information from job boards, partner enterprises, government human resources departments, and industry associations, along with industry trend reports and industrial policy dynamics, forming a systematic understanding of the labor market demand side. For the service process, data on student participation in various employment and entrepreneurship activities (e.g., lectures, counseling, job fairs, training) such as frequency, duration, and feedback evaluations need to be recorded.

Intelligent Intervention and Push Layer (Core Layer): Based on precise profiling, this layer is responsible for providing personalized service interventions and resource matching. It is the direct embodiment of precision services. First, there is algorithm-based intelligent matching and recommendation. The system can automatically match students’ personal profiles with job profiles and entrepreneurial resource profiles, achieving precise “person-position” recommendations, “person-entrepreneurship project” connections, and “person-training course” pushes, significantly reducing students’ information search costs and improving matching efficiency. Secondly, there is the generation of personalized service plans. The system can assist employment guidance teachers in generating customized “one plan per student” action plan suggestions for students with different need types (e.g., those pursuing postgraduate studies, civil service exams, jobs in renowned companies, self-employment, etc.), clarifying goals, tasks, required resources, and action steps at different stages. Finally, there is proactive service outreach. Changing from the past passive mode of waiting for students to seek help, the system actively pushes potentially interesting recruitment information, policy interpretations, lecture notices, or counseling appointment reminders to students through platform messages, SMS, email, etc., realizing a shift from “people seeking services” to “services finding people.”

Resource Integration and Supply Layer (Content Layer): Precise intervention requires high-quality, abundant service resources as support. This layer is responsible for integrating, optimizing, and modularizing various internal and external employment and entrepreneurship resources, forming an easily accessible and combinable “service resource pool.” In terms

of curriculum resources, break away from the traditional fixed-credit course model and develop a series of micro-courses, workshops, online open courses (MOOCs), and other modular learning resources covering career planning, resume writing, interview skills, workplace soft skills, basic entrepreneurship knowledge, business plan writing, financing pitches, etc. Students can choose and combine these resources independently based on their profile and needs, like shopping in a “supermarket.” In terms of practical resources, vigorously expand and construct high-quality internship and practice bases, innovation and entrepreneurship incubation spaces, and cooperate with enterprises to develop virtual simulation internship projects, entrepreneurial sandbox simulations, etc., providing students with low-cost, low-risk opportunities for practice in real-world scenarios. In terms of mentor resources, establish a diversified mentor database composed of internal professional teachers, career counselors, corporate executives, technical experts, successful alumni, venture investors, etc., to provide students with multi-faceted personalized consultation and guidance.

Multi-party Collaboration and Ecosystem Layer (Guarantee Layer): Precision services are not the sole responsibility of the university's employment department. It is necessary to break down organizational barriers and build a collaborative education ecosystem with internal and external linkages. Internal collaboration requires completely breaking down the barriers between the Career Guidance Center, Student Affairs Office, Academic Affairs Office, Graduate School, various academic departments, and the Innovation and Entrepreneurship College, establishing regular consultation, information sharing, and collaborative working mechanisms to form a joint force in education. For example, integrate employment and entrepreneurship education into the entire process of professional teaching, encouraging subject teachers to organically incorporate professional literacy and industry frontier knowledge into their teaching. External collaboration involves actively strengthening strategic cooperation with local government human resources and social security departments, industrial parks, industry associations, and leading enterprises to jointly build talent co-cultivation platforms and resource platforms. Actively introduce external resources such as policy subsidies, venture capital funds, and low-interest loans to provide tangible support for student employment and entrepreneurship.

Evaluation, Feedback, and Optimization Layer (Improvement Layer): A good system must possess the ability for self-evaluation and self-improvement. This layer aims to establish a set of data-based service effectiveness monitoring and continuous improvement mechanisms. By tracking and recording key behavioral indicators (e.g., number of resumes submitted, interview participation rate, job offer reception, entrepreneurial project progress) and ultimate outcome indicators (e.g., employment rate, employment satisfaction, starting salary, job-major alignment rate, entrepreneurial survival rate) after students receive services, conduct comprehensive quantitative and qualitative evaluations of the effectiveness of various service strategies and activities. Through data analysis, weak links and successful experiences in services can be identified, providing a scientific basis for adjusting resource allocation, optimizing service processes, and improving working methods, achieving closed-loop management of “evaluation-feedback-optimization.” This ensures that the precision service system can dynamically adapt to changes in the internal and external environment, maintaining its advanced nature and effectiveness.

4. Key Strategies for Implementing Precision Services

To put the constructed precision service system into practice, a series of specific and feasible strategies are needed for support. Universities should promote the following key measures step by step and with focus, according to their actual situation

4.1 Strengthen Technology Empowerment, Consolidate the Data Foundation, and Build a Solid Technical Base for Precision Services

Technology is the key engine for achieving precision. Universities should increase investment in the construction of smart employment and entrepreneurship platforms, creating an intelligent integrated service platform that combines data collection, storage, analysis, management, and service application. This platform should possess the following core functions: First, strong data middleware capabilities, able to securely and compliantly integrate data from multiple business systems such as educational administration, student affairs, and campus card systems, and capable of data cleansing and label management. Second, advanced user profiling and recommendation engines, able to use algorithms like machine learning for deep understanding of students and positions and intelligent matching. Third, convenient online service functions, supporting

online consultation, video interviews, electronic signing, activity registration, progress queries, etc. Fourth, intuitive data visualization and decision support dashboards, providing real-time, intuitive data insights for administrators and instructors. While promoting technology application, great importance must be attached to data ethics and privacy protection, establishing strict data management and usage norms to ensure the security of students' personal information.

4.2 Promote Faculty Transformation, Enhance Professional Competence, and Build a Team of Expert Instructors Competent in Precision Guidance

No matter how advanced the technology, it requires people to operate and use it. Precision services place higher demands on the capabilities of the employment and entrepreneurship work team. Systematic training for existing career guidance instructors must be strengthened, enabling them not only to master traditional counseling skills but also to understand basic methods of data analysis, know how to use career assessment tools, and provide personalized diagnosis and advice based on data insights. Instructors should be encouraged to leave the campus and undertake internships in enterprises to gain an in-depth understanding of industry dynamics and employment standards, enhancing the practicality and targeting of their guidance. Simultaneously, external mentor resources should be vigorously expanded by actively inviting experienced corporate HR professionals, industry elites, successful entrepreneurs, investors, etc., to serve as "career mentors" or "entrepreneurship mentors" for students, forming a high-level guidance team combining internal and external, full-time and part-time members, and establishing standardized mechanisms for mentor appointment, training, incentive, and evaluation.

4.3 Deepen Industry-Education Integration, Innovate Collaboration Mechanisms, and Bridge the "Last Mile" Between Talent Cultivation and Market Demand

The ultimate goal of precision services is to promote graduates to meet social needs with higher quality. Therefore, deep integration into the industrial ecosystem is crucial. Universities should proactively establish strategic partnerships with key regional industries and leading enterprises to jointly carry out "order-based" cultivation, co-build modern industry colleges, and set up customized talent programs. Introduce real enterprise projects, cases, and technical standards into the classroom and graduation design sessions, promote "Project-Based Learning" (PBL), and enhance students' comprehensive abilities through solving practical problems. Establish an "internship-employment" linkage mechanism, organically combining graduation internships with job hunting, and improve the conversion rate of internships. Regularly invite enterprise experts to participate in the revision of talent cultivation plans and course design demonstrations, ensuring the foresight and adaptability of talent cultivation.

4.4 Optimize Evaluation Mechanisms, Establish a Quality Orientation, and Guide Employment and Entrepreneurship Work Towards Connotative Development

The "baton" determines the direction of work. To effectively promote precision services, the traditional evaluation system for employment work must be reformed, abandoning the quantity-oriented approach that solely pursues the "initial employment rate." A comprehensive set of quality evaluation indicators for employment and entrepreneurship should be gradually established, incorporating metrics that reflect development quality, such as "degree of job-major relatedness," "employer satisfaction," "graduate starting salary and medium-to-long-term salary growth," "career development prospects," and "entrepreneurial project growth potential and social value." The implementation status of precision services, student satisfaction, and the actual results generated through services (e.g., the effectiveness of assisting disadvantaged groups, the success rate of entrepreneurial project incubation) should be used as important bases for evaluating the performance of departments and related units, thereby guiding the focus of various tasks to truly shift towards improving service quality and effectiveness, and continuously promoting the high-quality development of employment and entrepreneurship work for college graduates.

5. Conclusion

In summary, promoting the precision of employment and entrepreneurship services for college graduates is a strategic choice in the new development stage to cope with the severe employment situation and meet the diverse development needs of students. It is a concrete embodiment of implementing the "people-centered" development philosophy in the field of higher education and an important point for enhancing university governance capacity and modernization level. This is

a systematic project involving conceptual renewal, technology application, process reengineering, organizational change, and ecological restructuring, which cannot be achieved overnight. It requires university administrators to have forward-looking strategic vision and firm reform determination, demands the transformation of capabilities and upgrading of roles for the employment work team, and calls for consensus and synergy in collaborative education throughout the university. In the future, universities need to boldly explore in practice, continuously improve the technical platform, content system, operational mechanism, and evaluation standards of precision services, while actively seeking support from the government, enterprises, and all sectors of society to jointly build a new, vibrant, efficient, and sustainable ecosystem for employment and entrepreneurship services. Only in this way can we truly empower every graduate's career launch and life success, and provide a more solid talent support and intellectual guarantee for comprehensively building a modern socialist country.

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Conflict of Interests

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

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