

The Enlightenment of American Honors Education for Cultivating Top Innovative Talents in China

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Abstract: Since the 20th century, American honors education has evolved from its initial transplantation of the British model to an organized and collegiate system, gradually becoming one of the typical models for cultivating top innovative talents in the United States. It is characterized by diverse training objectives, flexible selection methods, comprehensive curriculum systems, high-quality educational resources, and well-established organizational structures, providing valuable experience and insights for China's current practices in cultivating top innovative talents.

Keywords: Honors education; Top innovative talents; Enlightenment

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1. Introduction

The competition for cultivating top innovative talents has become increasingly intense, with countries worldwide placing high importance on innovative talents as the core driving force for national technological competition and economic development ^[1]. The United States, through its well-established honors education system, top-tier university research platforms, and open global talent recruitment policies, continues to attract and cultivate outstanding international talents. The European Union relies on programs such as the "Erasmus Programme" to enhance talent mobility and cooperation. China, meanwhile, has increased investment in foundational disciplines, cutting-edge technologies, and the innovative capabilities of youth, implementing strategies like the "Top Talents Program" to achieve self-sufficiency in cultivating top innovative talents. Countries employ various forms of top innovative talent cultivation programs to align with national needs and global technological competitiveness. Among these, the American honors education system has emerged as one of the most representative models. Understanding its developmental history and main features holds practical significance for China's efforts in cultivating top innovative talents.

American honors education is an elite educational model specifically designed for academically outstanding students, typically existing in the form of Honors Colleges or Honors Programs within universities ^[2]. Its core objective is to provide students with higher-level learning opportunities through personalized, challenging, and interdisciplinary courses and educational practices, cultivating exceptional talents with critical thinking, creativity, leadership, and a sense of social responsibility. Honors education generally employs small-class teaching, focusing on students' comprehensive development in academic, research, and practical fields. Students applying for honors education must meet rigorous academic requirements and, upon completing the program and passing assessments, are awarded an Honors Degree ^[3].

2. The developmental history of American honors education

American honors education originated in the early 20th century. Frank Aydelotte, then-president of Swarthmore College, pioneered a relatively complete honors education system aimed at providing more challenging learning opportunities for academically outstanding students ^[4]. After World War II, honors education gradually spread across American universities. In the 1960s, the National Collegiate Honors Council (NCHC) was established to promote the standardization and professionalization of honors education. Subsequently, the Honors College model emerged, offering students more comprehensive and independent learning resources and personalized training. Entering the 21st century, honors education further developed into a diverse elite education model, becoming an important form of top talent cultivation in American higher education.

2.1. The embryonic stage of honors education

Modern honors education traces its roots to the honors degrees at the University of Oxford, which signify that students have achieved higher standards in their academic fields and surpassed the requirements of conventional degrees. This concept was introduced to the United States in the 19th century. Under its influence, Harvard University adjusted its elective course system, while Wesleyan College and the University of Michigan gradually adopted more flexible and personalized academic plans for students. Although these universities experimented with curriculum reforms, they did not design specialized honors programs ^[5]. The catalyst for the spread of the honors movement in the United States may have been the establishment of the Rhodes Scholarship, founded in 1902 by British businessman and philanthropist Cecil Rhodes to support outstanding students worldwide in studying at the University of Oxford ^[6]. The Rhodes Scholarship's core goal was to select academically excellent students with leadership potential, often excelling in multiple fields. This high-standard selection method inspired reforms in American higher education.

In 1922, Frank Aydelotte, who had once studied at the University of Oxford as a Rhodes Scholar, conducted an honors education experiment at Swarthmore College, establishing the first relatively formal honors curriculum. He designed seminar courses more challenging than conventional ones for selected students ^[7]. In 1925, he published a groundbreaking report, *Honors Courses in American Colleges and Universities*, classifying honors programs nationwide. By the late 1930s, with funding from the Carnegie Foundation, he and 35 volunteer teachers conducted an in-depth survey of honors programs at 130 colleges and universities, publishing the first book on honors programs in 1944, *Breaking the Academic Lockstep: The Development of Honors Work in American Colleges and Universities*, advocating the necessity of honors education ^[8]. Although Aydelotte was not the first scholar to propose the concept of honors education, his

research and practices laid a professional foundation for its development in the United States, earning him the title of “the founder of American honors education.” During this stage, the rudimentary form of American honors education gradually took shape, but overall, honors curricula were underdeveloped, mostly replacing advanced courses in private institutions and typically targeting only upperclassmen, lacking innovation and diversity ^[9].

2.2. The organizational phase of honors education

In the 1940s, the expansion of American higher education enrollment, coupled with the *Servicemen’s Readjustment Act of 1944* (commonly known as the G.I. Bill), which provided millions of veterans with opportunities to attend college, led to a sharp increase in higher education enrollment. Additionally, the post-World War II “baby boom” further drew attention to the scale and quality of higher education. On October 4, 1957, the Soviet Union successfully launched the world’s first artificial satellite, Sputnik 1, marking the beginning of the Cold War’s technological competition and exerting a strong impetus on the American education system, particularly higher education. In 1958, the U.S. Congress passed the National Defense Education Act (NDEA), resolving to strengthen educational support to bolster national defense capabilities. This marked the start of large-scale government investment in higher education, especially in science, technology, engineering, and mathematics (STEM) fields.

During the 1950s and 1960s, as American higher education became more accessible, universities faced the dual challenge of meeting diverse student needs and responding to the technological competition by reconsidering their stance on elite education. In 1957, Joseph Cohen, another pioneer of the honors education movement and director of the Honors Program at the University of Colorado, hosted a national honors conference and subsequently established the Inter-University Committee on the Superior Student (ICSS). Its formation and development fostered national connections among American university honors courses and programs, contributing significantly to the standardization and professionalization of honors education. The committee defined the “16 main characteristics of a complete honors curriculum” and created the journal *The Superior Student* to promote honors courses. However, as funding from the Carnegie Foundation and the National Science Foundation dwindled, the ICSS disbanded in 1965. In 1966, Cohen published *The Superior Student in American Higher Education*, updating the history of American honors education based on Aydelotte’s work. That same year, the NCHC was established to continue the ICSS’s mission, promoting the development of honors education in the United States. Unlike the ICSS, the NCHC was financially independent, free from external funding influences ^[10]. Today, the NCHC remains a national organization dedicated to advancing university honors education. During this stage, many public institutions began establishing honors programs and exploring diversified development. With the establishment of honors organizations, the standards for honors programs gradually became clearer.

2.3. The collegiate system of honors education

After the 1970s, the U.S. economy faced the dilemma of “stagflation”, leading to tight government budgets and reduced public education funding. To attract students, institutions sought to provide high-quality resources through honors education to meet diverse learning needs. Simultaneously, deteriorating family economic conditions affected students’ ability to pay. Statistics show that between the 1970s and 1990s, tuition fees in American higher education increased by about half, while household incomes grew by less than 10%. This

mismatch made students more inclined to choose honors programs offering substantial scholarships and high-quality education. Since 1980, honors scholarships tied to academic performance have grown significantly, particularly in public universities, driving the popularity of honors education.

In 1983, the National Commission on Excellence in Education released the report *A Nation at Risk: The Imperative for Educational Reform*, reiterating Aydelotte's views and advocating for additional educational support for outstanding students. Meanwhile, the NCHC continued its efforts to expand the influence of honors education. Honors programs extended from private universities to public universities and community colleges, and honors education publications such as *Honors Forum* and *National Honors Education Report* were established. Basic principles for honors programs were formulated, providing theoretical support for their development^[11]. With the growing number of honors students, institutions established dedicated honors colleges to offer more elite educational pathways. This stage saw the establishment of honors colleges as a product of socioeconomic changes, evolving student needs, intensified university competition, and the push from professional organizations. Honors colleges played a crucial role in balancing the massification and elitism of higher education, providing superior education for outstanding students while enhancing institutional competitiveness and academic reputation.

2.4. The deepening development of honors education

In the 21st century, under market-oriented conditions, honors education organizations in various institutions have actively sought survival strategies, developing diverse forms of honors education—such as honors colleges, honors courses, honors programs, and honors seminars—based on their unique goals, resources, and disciplinary strengths. The development of honors education has exhibited characteristics like intensified competition for students, strengthened scholarship policies, innovations in personalized and diversified teaching, international expansion, and multi-party collaboration. Honors education has become a key means for universities to highlight their advantages in fierce competition.

According to statistics, the NCHC now includes over 900 institutional members^[12]. The NCHC Executive Committee has systematically and comprehensively summarized the shared features of program-based and college-based honors education organizations from multiple dimensions—such as project philosophy, operational management, curriculum design, admissions, faculty standards, and alumni work—based on best practices successfully implemented and fully developed across the United States. This not only provides important theoretical guidance and practical references for emerging honors programs or colleges but also serves as a benchmark for evaluating their quality and reputation.

3. Main features of American honors education

3.1. Diverse training objectives

The training objectives of American honors education revolve around comprehensive development and the pursuit of excellence, aiming to cultivate outstanding talents for future society. First, honors education emphasizes personalized development, focusing on students' interests and strengths. It not only encourages in-depth academic exploration but also broadens their knowledge, fostering interdisciplinary thinking and the ability to solve complex problems. Leadership development is a key component, with many honors colleges aiming to shape students into future leaders in society and professional fields. Social responsibility is

another focal point, as honors education encourages students to give back to society through diverse forms of engagement, becoming forces for social progress. Against the backdrop of globalization, students' international perspectives and cultural adaptability are also emphasized to help them meet global challenges.

Overall, honors education aims to cultivate top talents, but different institutions have varying emphases. For example, the Schreyer Honors College at Pennsylvania State University, founded in 1980 and once hailed as one of "the top three honors colleges in the United States", focuses on academic excellence, global perspectives, and social responsibility, aiming to equip students to tackle complex challenges as global citizens and leaders^[13]. The Barrett Honors College at Arizona State University, rated as "the best honors college in the United States", adheres to the philosophy of helping students fully explore their interests and passions, promoting personalized growth^[14]. The Clark Honors College at the University of Oregon aims to inspire innovation and foster collaboration, helping students become critical thinkers, effective communicators, and future leaders^[15].

3.2. Flexible selection methods

The selection criteria for honors education prioritize comprehensive evaluation, focusing on academic performance, potential, and individualized traits. Academically, high school GPA and standardized test scores (e.g., SAT, ACT) serve as basic thresholds, but these scores are often just the starting point. During the application process, honors colleges pay closer attention to students' essays, recommendation letters, and interview performances to gain deeper insights into their academic interests, values, and critical thinking abilities. Many honors colleges also value students' extracurricular activities, including academic competitions, community service, artistic creations, or sports, as reflections of their comprehensive qualities. Some honors programs adopt invitation or recommendation systems to ensure outstanding students with potential stand out. Additionally, honors education pays special attention to students from diverse cultural, economic, and educational backgrounds to promote equity and inclusivity. In summary, the selection process emphasizes individuality, seeking to uncover students' unique abilities and traits rather than relying solely on academic rankings.

For example, the Schreyer Honors College admits freshmen, current students, and transfer students. Freshmen applying to the honors college must meet Penn State's basic admission requirements and submit additional materials, including essays, academic records, and recommendation letters. The college also requires applicants to answer short questions to assess their achievements and capabilities. Finally, accepted applicants participate in alumni interviews to discuss their interest in the Schreyer Honors College and share experiences at Penn State^[16].

3.3. Comprehensive curriculum system

The curriculum system of American honors education is highly flexible and interdisciplinary, designed to provide students with a comprehensive and personalized learning experience. The content reflects a combination of academic depth and breadth, often covering cutting-edge topics in various fields with high levels of challenge. Course designs encourage deep interaction between theory and practice, cultivating students' ability to analyze and solve complex problems from multidisciplinary perspectives. Honors curricula typically include a few core courses alongside numerous electives, allowing students to tailor their academic paths based on personal interests, career goals, and academic needs.

Honors colleges develop curriculum systems aligned with their educational philosophies and provide

professional advisors to guide students in creating unique learning plans, fully reflecting flexibility and personalization. For instance, at the Clark Honors College, students work with peer mentors and advisors to design annual learning plans and overall graduation roadmaps. The honors curriculum is diverse, requiring students to complete foundational courses in humanities and social sciences, seminars, second language studies, honors major courses, regular major courses, quantitative research courses, research and writing courses, and electives. In their final year, students must submit an honors thesis and defend it. Credits for second language, quantitative research, and regular major courses can be transferred from Advanced Placement (AP), International Baccalaureate (IB), or College-Level Examination Program (CLEP) courses. Honors course assessments are typically stricter than regular ones, requiring grades of C- or above and a minimum GPA of 3.0 to earn an honors degree ^[17].

3.4. High-quality educational resources

Honors education provides students with comprehensive, high-quality resources to ensure they receive ample attention and support throughout their learning journey. It often employs dual or multiple mentorship systems and small-class teaching, enabling students to engage deeply with professors and receive dedicated academic and career guidance. Additionally, honors college students enjoy extensive research opportunities and academic resources, including priority access to libraries and laboratory equipment, collaborative research with professors, and participation in innovation competitions. Honors colleges also partner closely with businesses, government agencies, and nonprofits to offer internships and practical projects, allowing students to enhance their problem-solving skills in real-world contexts ^[18]. In terms of community building, honors colleges typically provide dedicated housing and organize regular social events, academic salons, and team projects to foster a sense of belonging and collaboration, creating a cohesive honors community. They also establish special scholarships to support students in pursuing overseas study, dual-degree programs, and cultural exchanges, facilitating holistic growth.

For example, the Barrett Honors College at Arizona State University has established four dedicated honors living and learning communities across the state, supporting students in classroom learning, extracurricular engagement, professional development, and personal growth. Exclusive honors opportunities include study abroad programs, global key projects, undergraduate research and internships, social and cultural activities, and leadership and service initiatives. The college created the “Great American Cities” travel program, taking students to iconic U.S. cities like New York, Washington, New Orleans, and San Francisco for immersive learning. Global engagement initiatives include study abroad trips, Barrett Global Seminars, Global Solutions, the Global Distinguished Leaders Lecture Series, and the Global Distinguished Leaders in Residence Program. The college also offers honors students opportunities to collaborate with elites across various fields ^[19].

3.5. Well-established organizational systems

Under the macro-guidance of the NCHC and the specific practices of various honors programs, American honors education has developed robust organizational systems. The NCHC currently has 23 standing committees—including advocacy, evaluation, consulting, and international education—with over 400 members, providing professional guidance to institutions, setting academic standards, promoting best practices, and facilitating exchanges and collaborations among educators through regular conferences and training opportunities ^[20]. This ensures the quality and consistent direction of honors education while offering ongoing

support and resource-sharing platforms for educators.

Within honors colleges, distinctive organizational structures have emerged, with specialized offices for admissions, academic advising, technical support, student programs, and career development^[21]. For example, the Schreyer Honors College's admissions office recruits and selects students who meet its standards through rigorous academic reviews, interviews, and personal background assessments. The academic advising office offers personalized support, helping students plan courses, select projects, and design individualized learning paths. The technical support and resource management office maintains the college's technical facilities to facilitate research and learning. The student programs and activities office organizes academic, cultural, and social events. The career development office provides career planning and employment counseling, assisting students in finding internships and jobs aligned with their academic backgrounds. These offices collaborate closely to deliver comprehensive support to honors students.

4. Summary and enlightenment

After over a century of exploration and development, American honors education has formed a distinctive model for cultivating top talents, becoming a globally recognized exemplar in higher education. Evolving from scattered experimental programs to an organized and diversified system, it has not only nurtured batches of outstanding talents for the United States but also provided valuable experience and templates for global higher education.

In response to the “Qian Xuesen Question,” China officially launched the “Top Talents Program” in 2009, marking a new phase in the nation's emphasis on cultivating top innovative talents. In 2018, the Ministry of Education and five other departments jointly issued the *Opinions on Implementing the 2.0 Plan for Cultivating Top Students in Basic Disciplines*, accelerating the national strategy for top talent cultivation in foundational fields. The *2024 Decision of the Central Committee of the Communist Party of China on Further Comprehensive Reforms to Advance Chinese Modernization* explicitly called for strengthening the development of foundational, emerging, and interdisciplinary disciplines and the cultivation of top talents. With the deepening implementation of the integrated strategy for education, science and technology, and talent development, the cultivation of top innovative talents has become a key focus in education. Universities across China are exploring selection methods, training models, and support mechanisms for top innovative talents. Reflecting on the developmental history and main features of American honors education offers three insights for optimizing China's top innovative talent cultivation model.

4.1. Emphasize potential assessment

While China has explored diversified paths for selecting top innovative talents, it still overly relies on traditional academic performance and standardized tests—static assessments that lack personalization and may overlook students with innovative potential^[22]. Further efforts should integrate comprehensive qualities, innovative potential, and interdisciplinary abilities into selection criteria, employing interviews, personal statements, and recommendation letters for holistic evaluations.

4.2. Focus on personalized development

China's curriculum systems for top innovative talents are gradually diversifying and becoming more

interdisciplinary, with many schools introducing innovation experimental classes, honors courses, and cross-disciplinary programs to inspire independent learning and exploration. However, overall, most university curricula remain collectively oriented and overly focused on single-discipline knowledge transmission, neglecting individual differences and interests, which hampers practical application skills and forward-thinking^[23]. Therefore, while aligning with national strategic needs, personalized development support and flexible training mechanisms must be strengthened to better adapt to diverse student needs and future societal innovation demands.

4.3. Build collaborative support mechanisms

The growth and success of top innovative talents often span long, complex processes, requiring joint efforts from the government, universities, research institutions, and society to establish supportive mechanisms^[24]. Currently, the government promotes top talent cultivation through policy support and funding initiatives; research institutions collaborate with universities to create platforms for industry-academia-research integration; and some businesses and social organizations provide internships, research projects, and innovation competitions. However, challenges remain, such as short-term government policies, uneven resource distribution, insufficient collaboration depth among stakeholders, and low societal participation. Systematic and sustained support mechanisms are needed to optimize resource allocation and foster synergy for top talent cultivation.

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