

Analysis of the Talent Demand and Cultivation of Safety Engineering in the New Normal

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Abstract: In China, the main features of the new normal are the slowdown of economic growth, the release of market dynamics and the optimization and upgrading of the industrial structure. In this period, primary and secondary industry are facing problems such as massive overcapacity, large amounts of major hazards and severe safety production. With the increasing requirements and expectations for security, the scale and cultivation orientation of the safety engineering specialty cannot satisfy the demands for the development of various industries. Therefore, it is necessary to broaden and extend the cultivation orientation of the safety engineering specialty. This paper discusses the developing trends, the talent demand, and the construction and development of the safety engineering specialty. Then, it analyzes the talent demand and cultivation of safety engineers in the new normal. It is suggested that two types of safety engineering talent—academic and applied—should be cultivated. Concerted effort should be devoted to establishing a new mechanism of school-enterprise cooperation. All the above efforts may provide strong support for safety production in China.

Keywords: New Normal, Safety Engineering, School-Enterprise Cooperation, Talent Cultivation, Talent Demand

1. Introduction

China's new normal, or the trends in its current economic development, is mainly characterized by an economic shift in gears from high-speed to medium-to-high-speed growth. The traditional mode of economic growth was characterized by an excessive pursuit of growth at the cost of high energy consumption, heavy pollution and frequent accidents, which caused massive safety problems [22]. However, there is an opportunity to solve these issues in the new normal.

In the new period of adjustment, the increasing number of security accidents has become a major factor affecting China's stability and development. For example, on August 2, 2014, an extraordinarily serious aluminum-alloy dust explosion accident occurred in the second polishing workshop of Zhongrong Metal Products Co. Ltd. in Kunshan Economic and Technological Development Zone, Kunshan City, Suzhou City, Jiangsu Province, China. The causes and process of this accident were as follows: In the beginning, the rule-violating cleaning of the dust-removal system in the workshop led to

aluminum-alloy dust accumulation over a long period of time. Then, the operation of the dust-removing fan produced high-temperature particles in the process of grinding, which formed a dust cloud above the dust-collecting barrel. The corrosion damage of the dust collecting barrel of the dust collector caused the exposure of aluminum-alloy dust. The heat from the subsequent oxidation reaction reached the ignition temperature of the dust cloud, which resulted in a series of explosions in the dust removal-system and workshop. Without an explosion-discharge apparatus, the high-temperature gas and combustion materials produced by the explosion were immediately ejected from the suction inlets through the pipes, directly attacking workers in the workshop. According to statistics, 75 people died and 185 people were injured in the accident [8]. Another severe fire and explosion accident occurred in a hazardous chemicals warehouse of Ruihai International Logistics Co. Ltd. in the Binhai New Area, Tianjin, on August 12, 2015. The development of this accident was as follows: Due to a loss of wetting agents, nitrocotton in containers located south of the hazardous chemicals warehouse presented local desiccation. Under

conditions of high temperature and other factors, the heat released from its accelerated decomposition reaction caused spontaneous combustion and a large-area combustion of more nitrocotton and other hazardous chemicals in adjacent containers over a long period of time, which led to explosions of ammonium nitrate and other hazardous chemicals stacked in the unloading area. The total energy of the two violent explosions and several small-scale explosions during this period produced the equivalent of approximately 450 tons and caused 165 deaths, 8 missing people, and 798 injuries. It led to serious damages to 304 buildings, 12428 commercial vehicles and 7533 containers and a direct economic loss of 6.866 billion yuan [20].

The above two accidents reveal that an overemphasis on production, the neglect of safety and frequent accidents are severe sequelae of traditional development modes. Therefore, in the new period of adjustment, to guarantee the security and stability of the country, the transformation of the development mode must be accelerated, and investment in safety production—particularly in talent—should be increased to

cultivate a large number of security professionals.

2. General Developing Trends

2.1. The Slowdown of Economic Growth Provides an Opportunity for the Transformation of the Traditional Growth Mode

During the golden age of rapid economic growth, many industries—especially the energy industry—experienced tremendous development. Coal and petroleum became the leading industries in China's economic structure [19]. However, these industries emphasized economic benefits and ignored environmental protection, which shaped their extensive production and management modes, characterized by high energy consumption and heavy pollution. In recent years, the emergence of the greenhouse effect and hazy weather has signaled that the transformation of the development mode must be accelerated [3].

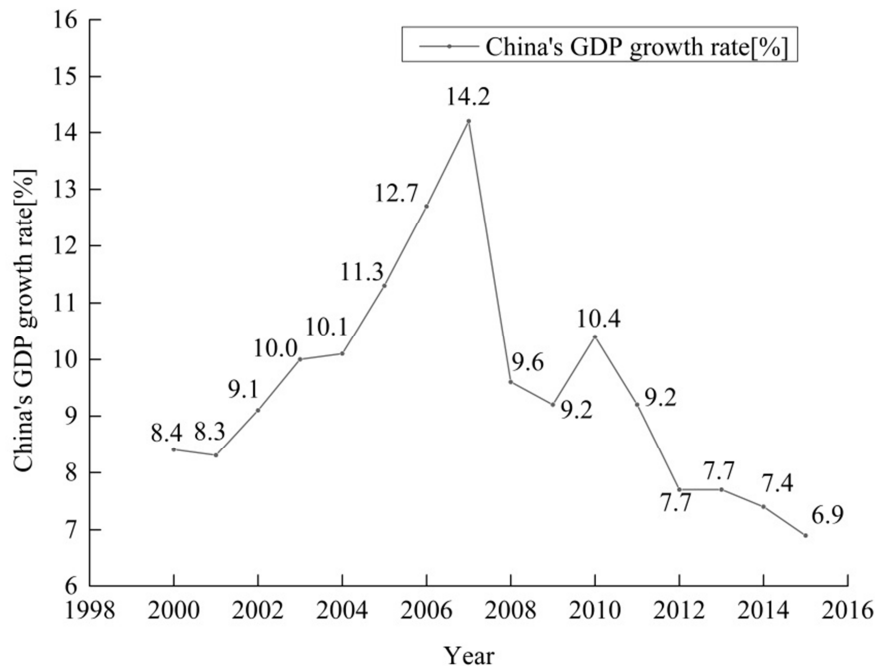


Figure 1. China's GDP growth rate from 2000 to 2015.

Since entering the new normal, according to Figure 1, the annual average growth rate of China's GDP has been below 8 percent for four consecutive years since 2012, which is a relatively rare phenomenon in the time period since the reform and opening up. People's requirements and expectations for security have raised with the economic development, and the traditional developing pattern at the expense of the environment and civilian lives goes against the principles of sustainable development. Thus, industries with high energy consumption and heavy pollution should shift away from the extensive production and management modes during this period of economic adjustment. They should positively respond to the remaining problems, such as overcapacity, a low

comprehensive quality of enterprise and the lack of technological innovation ability. They must equally emphasize both production and safety, strictly control pollution emissions and turn factory-driven growth into innovation-driven growth. These measures can help transform the growth mode.

2.2. The Optimization and Upgrading of the Industrial Structure Force the Safety Engineering Specialty to Broaden Its Cultivation Orientation

The traditional extensive mode of economic growth resulted in serious environmental problems and the emergence of an irrational industrial structure, which was characterized as follows: 1) The agricultural infrastructure was weak, and

the modernization level was low [16]. 2) Industrial isomorphism and blind expansion problems were severe [17]. 3) Tertiary industry was relatively underdeveloped, which meant that the coexistence of overcapacity of secondary industry and the insufficient supply of tertiary industry caused an irrational industrial structure [24]. All these phenomena led to a large number of major hazards and a high risk of accidents in every walk of life, threatening the stability of the country and the security of people's lives and property. Therefore, it is urgent for China to transition from secondary industry to tertiary industry in the new normal. In addition, the safety engineering specialty closely associated with the second industry should be optimized and upgraded, which means that it is necessary to broaden talent cultivation orientation in order to provide security for more emerging industries.

At present, based on their backgrounds, colleges and universities have different training orientations to cultivate talent in order to satisfy the demands of secondary industry. China University of Mining and Technology, Northeastern University, Liaoning Technical University, Anhui University of Science and Technology and Henan Polytechnic University cultivate talent for the coal industry. Beijing Institute of Technology and Nanjing University of Science and Technology are oriented toward blasting, explosion and disaster prevention and control for the military industry. Capital University of Economics and Business focuses on safety management. Safety engineering talent is developed at the University of Science and Technology of China, committed to researching fire and flame retardants. Shenyang Jianzhu University develops safety engineering talent for the architectural industry, and East China University of Science and Technology and Nanjing Tech University cultivate talent to meet the demands of chemical safety.

After decades of development, the research orientations of the safety engineering specialty have extended to mining, chemistry, architecture, metallurgy, machinery and other fields, and many safety engineering students are trained to concentrate on the construction of secondary industry in China. However, the focus of the national economy will shift from secondary industry to tertiary industry due to the optimization and upgrading of the industrial structure [18], which means that expanding industries in the future will render the present cultivation orientations of the safety engineering specialty insufficient in satisfying the demands of the emerging tertiary industry. Taking mining safety as an example, efforts should be made to expand the field of industrial safety by on strengthening the characteristics of mining safety, and equal emphasis should be given to both training orientations. Furthermore, the courses required by every field can be set as major curricula, while those designed for particular industries should be instituted as specialized courses. Students must be encouraged to become involved in safety engineering in other fields through selective courses, lectures and other learning forms rather than being confined to accruing knowledge in just one field. These measures may ensure safety engineers to be competent for safety work in various fields.

In addition to developing a major orientation, colleges and

universities should positively expand other cultivation orientations to adapt to the optimization and upgrading of the industrial structure, following the principles below:

(1) Gradually broadening the cultivation orientation based on market demands

In terms of the development of the safety engineering specialty and its employment prospects, a single cultivation orientation of this subject cannot meet the market demands. Based upon the industry status and their school background, colleges and universities should gradually broaden their cultivation orientation to provide more employment options for graduates [25]. This will help safety engineers make more contributions to safety work in many fields.

(2) Expanding the field of specialty with full consideration of the relevance

Instead of completely giving up their advantages and setting brand-new training orientations, colleges and universities should gradually broaden the relevant fields based on their own disciplines. In addition, it is necessary to set up the same foundation courses of different cultivation orientations to guarantee the quality of training.

2.3. The Safety Engineering Specialty Should Adjust Its Training Orientation Based on Market Demand After Fully Releasing the Market Vitality

Table 1. Safety professionals in various orientations needed by different institutions.

Institutions	Orientations
Large-scale construction enterprises	Safety education on site
	Safety archive management
	Disposal of industrial injury accidents
	Safety management of construction site
	Preparation and review of safety construction scheme
Large factories, mines and other production-oriented enterprises	Allocation and management of safety protection equipment
	Safety education
	Safety evaluation
	Safety management
	Disposal of industrial injury accidents
Safety evaluation agencies	Prevention and control of occupational disease
	Risk assessment
Governments and public institutions	Professional safety evaluation
	Governmental safety management
Colleges and universities	Education of safety engineering specialty or similar majors

In the new normal, market vitality is fully released by a series of administrative simplification measures, and this invisible market force plays an important role in economic development. In the current circumstances, diversified market demand will make the security requirements more complex, which is why the traditional cultivation orientation of safety engineering will not meet the changeable market demand. Thus, to achieve the safety development of the national economy, talent cultivation should adapt to the demands of and changes in the market.

Talent cultivation in safety engineering is aimed at satisfying the needs for safety production in every walk of life. Guided by industry demand, this specialty has been involved

in various fields after decades of development. The safety professionals needed by different sectors of the market are listed in Table 1. Colleges and universities should gradually adjust their cultivation orientations according to the market demands to allow graduates to control the initiative of employment selection and devote their efforts to the construction of enterprises.

3. Talent Demand Analysis

3.1. The Increasing Number of Security Professionals Is the Urgent Demand of the Severe Safety Production Situation

China is currently witnessing a new era of accelerating the transformation of the economic growth mode, innovating the social management mode, protecting and improving people's livelihood and realizing safety development. During this period, there is overcapacity in the first and secondary industries, and a large number of major hazard sources and high-risk accidents occur across a wide range of industries [9]. Moreover, the fact that enterprises place more emphasis on economic benefits than security led to a high rate of accidents over a long period time, which is why many safety engineers are unwilling to be engaged in security-related jobs. Meanwhile, because the requirements and expectations for security have been raised along with the development of the economy, people pay more attention to prevention rather than compensation and focus much more on their own lives and property. Thus, an increasing number of security professionals must be cultivated to provide adequate security for the state, enterprises and individuals.

Furthermore, the severe safety production situation in China is characterized by the frequent occurrence of serious and major accidents, causing a high number of casualties and serious economic losses. Statistics from the State Administration of Work Safety revealed that a total of 269000 accidents killing 57000 people occurred from January to November, 2014, including 37 serious and major accidents that caused 685 deaths. There are many reasons for these accidents. First, the lack of safety supervision departments in many enterprises and industries leads to the shortage of safety managers, an incomplete implementation of safety responsibility systems and poor management [2]. Second, without emergency rescue plans and emergency exercises, most enterprises have a low ability to cope with emergencies. Third, because staff members do not receive professional safety training, unsafe behaviors such as illegal command, illegal operation and of labor discipline violations often occur at the workplace [5].

Therefore, a higher number of safety professionals is an urgent demand to address the severe safety production situation. It is obvious that employees' qualities and safety awareness and enterprises' security standards are the preconditions for safety production. The measures for cultivating security professionals are as follows:

(1) Continuously expand the enrollment scale for safety

engineering specialty

The Ministry of Education promotes separate enrollment and entrusted training to expand the enrollment scale by increasing the number of profession-oriented colleges. Additionally, considering the national safety production situation and enterprises' demands, colleges and universities should make full use of their characteristics and advantages to actively implement enrollment plans that can increase the total amount of security professionals.

(2) Actively develop an order-oriented cultivation of talent

Directional training and employment are the main ways to promote the development of order-oriented cultivation; therefore, colleges and universities should make full use of existing education resources, discipline advantages and their close ties with enterprises to systematically accelerate school-enterprise cooperation and contribute to safety production by taking on the responsibilities of training safety professionals proactively [6], [14]. In addition, colleges and universities should attach great importance to the education quality of order-oriented cultivation, and specific talent-training plans should be created for order-oriented cultivation by following the principle of training students in accordance with their aptitudes and demands. Furthermore, the State Administration of Work Safety and other pertinent departments should encourage colleges and enterprises to continuously advance and expand school-enterprise cooperation.

(3) Constantly improve vocational education

The promotion of vocational education is urgent to further increase the scale and improve the quality in the existing training bases of badly needed professionals. Moreover, guided by many policies, higher vocational schools and skilled-work schools could provide various forms of vocational and technical training, such as evening and weekend classes for in-service employees in industrial and mining enterprises [13], [15]. Moreover, vocational education could be enhanced by combining it with safety vocational skills training.

(4) Further strengthen the support of scholarship and financial assistance policies

The Ministry of Education should increase the proportions of safety professionals who receive a national scholarship and bursary. Additionally, regarding the establishment of a scholarship program, the State Administration of Work Safety and other concerned departments should actively raise funds for talent cultivation by all possible means; this could attract more students to major in safety engineering. Meanwhile, the Ministry of Finance and relevant departments should support the implementation of preferential loan policies as much as possible and reduce or cancel loan repayments for college graduates who volunteer to serve high-risk industries in order to help poor students finish their studies smoothly.

3.2. Serious Brain Drain in Traditional Industries Renders Security Professionals Badly Needed

As the Chinese economy enters into a new normal, many problems and difficulties remain unresolved, such as the

overcapacity of traditional industries, the downturn of economic growth and the decline in product prices and enterprises' economic benefits. To maintain operations, enterprises have reduced the scale of production, the welfare of employees and even safety investment, which has caused more potential safety hazards, frequent accidents and severe losses. A reduction in salaries and benefits and high-risk work environments are the reasons for the outflow of safety engineering talent, which has led to an urgent demand for these specialized workers.

The new normal means that the industrialization climax has basically come to an end, and traditional industries can no longer obtain huge profits through cheap labor and extensive expansion. Since safety investment cannot bring enormous economic benefits in the short term, enterprises tend to put more funds into production; as a result, they neglect safety management. The lack of safety investment causes many potential hazards in production, bringing about the brain drain phenomenon in traditional industries, which have a weakness related to safety. Therefore, it is urgent to promote the transformation and upgrading of traditional industries. On the one hand, high and new technology should be introduced into the progress of exploiting markets, developing projects and promoting business. On the other hand, they should realize their own potentials and advantages, such as strong brands, geographical environments and unique resources and explore the potential to enhance economic efficiency. In addition, by innovating talent introduction mechanisms and increasing employees' salaries and benefits, these industries would be able to address their difficulty recruiting and retaining talent.

3.3. The Various Employment Options for Safety Engineers Seriously Affect the Introduction of Safety Talent in High-Risk Industries

In China, a total of 155 undergraduate colleges offer a safety engineering specialty and train approximately 7000-8000 graduates every year, and more than 200000 enterprises in high-risk industries such as mining, chemistry and architecture are suffering the challenges of potential hazards in production. Graduates of safety engineering have various employment options, for a few reasons. First, with the development of society and the economy, countries and enterprises are paying more attention to safety production than ever before and are developing the awareness that safety production is a prerequisite for the improvement of economic benefits. As an important safeguard of production, an increasing number of safety professionals are required by enterprises in various fields. Therefore, graduates, who have their own distinctive views and ideas, may make various choices regarding employment. Most safety engineering graduates are not inclined to work for high-risk industries, which causes a shortage of safety professionals in these industries.

With the establishment and improvement of the socialistic market economy system, the employment of college graduates has undergone a fundamental change and witnessed the emergence of its new mechanism of two-way selection and independent job selection [4]. Moreover, in recent years, the

security situation of industries such as road traffic, high-speed rail and nuclear energy has gradually received more attention. Therefore, the guarantee of safety is not confined to the traditional high-risk industries, such as mining, chemistry and architecture. In this situation, graduates majoring in safety engineering have various employment options and require high salaries, which makes it difficult for enterprises in high-risk industries to employ these graduates. Although many enterprises have improved the welfare of safety talents, compared to that of original employees, graduates are still unwilling to work for high-risk industries due to the strenuous working conditions, which negatively affects safety production in these industries.

Therefore, the point is to attract more security professionals to work for high-risk industries in order to guarantee safety production and improve economic benefits. Enterprises may follow these suggestions:

(1) By providing vocational education and vocational training, enterprises can encourage graduates to develop their career plans. They can also publicize their corporations according to the employment intentions and occupational demands of graduates to attract more graduates to safety work.

(2) By offering scholarships and financial assistance, enterprises may select students majoring in safety engineering from colleges and universities and develop order-oriented cultivation to ensure talent recruitment.

(3) Enterprises should not only raise welfare treatment and perfect employment mechanisms but also offer graduates opportunities to improve their abilities and skills. Thus, graduates could constantly enhance their professional skills and strongly guarantee safety production in these enterprises.

(4) On the premise of normal production, high-risk industries should take active measures to improve the working environment. For instance, the dust concentration must be under strict control in mill buildings or mining areas.

3.4. The Emergence of a Talent Deficit Is Detrimental to the Security of High-Risk Industries

In recent years, due to the shortage of technical personnel and employee succession, a large number of industries have been confronted with the phenomenon of a talent deficit, which severely affects the safety production of enterprises. Because of the special work environment of these industries, such as measurement, welding, mining, geology and electromechanics, younger technical workers are not prepared to take over when older ones resign from their posts. It is well known that all positions require technical personnel in the continuous production of corporations. Therefore, the emergence of a talent deficit has had harmful effects on safety production and easily causes economic losses. To improve safety production in high-risk industries, to modernize safety production and to promote the balanced development of the national economy, it is essential to analyze the reasons for the talent deficit in enterprises and to research the strategies for recruitment and retention in the new situation.

There are several reasons for the emergence of the talent deficit:

(1) Brain drain

Many domestic enterprises are suffering the serious outflow of technical personnel, especially high-tech talent, which may cause the loss of core technologies and the interruption or even the termination of developing projects and thus threaten the safety production of enterprises. Meanwhile, many technical workers are unable to complete their work before they resign, and no one can take over their jobs in time, which interrupts the production process and leads to huge losses [1], [7].

(2) The shortage of technical talent

In China, the training mechanism of technical personnel is relatively simple. Institutions training technical personnel, such as colleges, vocational high schools and technical schools, are continuously shrinking, and many institutions even have changed course, which has brought about the increasing scarcity of technical talent resources.

The number of safety workers devoted to high-risk industries has fallen every year; consequently, these enterprises face high staff turnover. The instability of employment, the low quality of work and serious talent deficits are increasingly problematic, which is inconsistent with the current rapid development of science and technology in every walk of life. A seriously insufficient supply of safety professionals has caused huge damage to the safety production in every industry. Enterprises should make a greater effort to attract and recruit talent, guarantee employee succession and improve management mechanisms to prevent the emergence of a talent deficit.

4. Construction and Development of Safety Engineering

A large scale and a high quality of safety talent are important support for the fundamental improvement of the national safety production situation. In China, there is an urgent need for a large number of academically talented workers with a solid basic knowledge of safety production, systematic knowledge of safety management and an ability to analyze global safety. There is also a need for applied safety professionals to solve technical issues such as the identification and evaluation of hazards, reliability analyses for equipment systems, security maintenance for technological process and key equipment, safety monitoring, the protection of the working environment and the inspection of hazardous factors. Therefore, safety engineering talent should be cultivated in two ways:

(1) Cultivate a group of applied-knowledge students who are engaged in safety administration and security technology management at the production site and

(2) cultivate a group of academic-focused students devoted to safety science and technology research.

To cultivate safety engineering talent, applied and academic students must be considered, and different training objectives and cultivating programs should be established. Through experimental teaching, productive practice and the close integration of course contents and actual production

requirements, applied students should be cultivated to acquire professional knowledge and skills and apply what they learn into production practice [11], [23]. Moreover, through lessons, lectures, and academic conferences, among other things, academic students should learn basic theories and develop advanced knowledge to explore terra incognita and make breakthrough innovations in scientific research. Thus, they should be trained to grasp basic theories, develop systematic specialized knowledge and cultivate the ability to undertake scientific research or independently engage in specialized technical work. The same public basic courses should be set up for both types of students. As for specialized courses, applied students may participate in productive practice, while academic students can carry out scientific experiments. Through this mode of talent cultivation, more safety professionals may be recruited to guarantee the safety production in enterprises.

At present, safety professionals—especially those with applied talent—are in short supply, and many industries lack safety professionals who can work well on their production sites. Furthermore, educational patterns in colleges that place more emphasis on theory than practice lead to incompetence in immediate work among most graduates. The gap between talent cultivation and production practice is an important reason for the shortage of applied talent [10]. Therefore, to improve the cultivation of safety engineering talent, a new mechanism of school-enterprise cooperation should be developed as follows:

(1) Universities and enterprises can jointly establish training objectives and create programs and courses for students. In addition, to reform the talent training pattern, the focus should be on strengthening students' engineering and innovation ability. A group of national engineering practice education centers in enterprises would allow students to engage in coursework based on production practice in these enterprises, and they could so for a year [21].

(2) In appointing and assessing college teachers in engineering disciplines, colleges and universities should take into consideration their abilities in engineering project designs, patents, university-industry collaborations and technical services. In addition, priority in recruitment and position promotions may be given to teachers who have a certain number of years of work experience in scientific research and social practice [12]. Meanwhile, the training standards for safety professionals could be jointly designed by education and industries, and the establishment of general standards relies on the joint effort of the Ministry of Education and the Chinese Academy of Engineering. Moreover, the Ministry of Education and industry departments should make a concerted effort to formulate industry standards so that colleges and universities can cultivate safety professionals according to these standards.

(3) Colleges and universities should continue to reform the teaching quality for undergraduates. Efforts should be made to improve research management systems and the mechanisms of internal decision-making, management and supervision in scientific research institutions and to expand the autonomy in

personnel placement and scientific research funds. Additionally, the education quality of the safety engineering specialty can be continuously enhanced by combining it with the key subject construction project of the Ministry of Education, thereby cultivating high-quality safety professionals for enterprises.

(4) It is necessary to update the knowledge of safety technicians through learning theoretical knowledge. A number of national continuing education bases could be constructed with the help of colleges, scientific research institutes and large enterprises, which could constantly renew the knowledge of professionals.

5. Results and Discussion

This paper has discussed the developing trends, talent demand, construction and development of the safety engineering specialty and analyzed the talent demand and cultivation of safety engineering in the new normal.

(1) The main features of the new normal are the slowdown of Chinese economic growth, the release of market dynamics and the optimization and upgrading of the industrial structure. The safety engineering specialty closely related to the second industry should broaden and extend its cultivation orientation according to the market demand so that the quality and quantity of safety professionals can meet the needs of more emerging industries in the future and safeguard national security and development.

(2) The severe safety production situation in China brings about the reduction of salaries and economic benefits in enterprises. Moreover, there are various employment options for graduates majoring in safety engineering, which makes it difficult for enterprises in high-risk industries to recruit and retain talent. To solve these problems, enterprises should provide vocational education and vocational training for graduates and publicize themselves with an understanding of the employment intentions and occupational demands of graduates so that more graduates might be attracted to devoting themselves to safety work. By offering scholarship and financial assistance, enterprises may select students majoring in safety engineering from colleges and universities and develop order-oriented cultivation to ensure talent recruitment. Moreover, enterprises should improve salaries, perfect employment mechanisms and offer graduates opportunities to improve their abilities and skills so that graduates can constantly enhance their professional skills and ensure the safety development of enterprises.

(3) In China, colleges and universities set different training orientations based on their school background. Safety engineering talent cultivation should be approached in two ways. One is to cultivate a group of applied-knowledge students who are engaged in safety administration and security technology management at the production site, and the other is to cultivate a group of academic students devoted to safety science and technology research. Due to the shortage of applied talent, a new mechanism of the school-enterprise cooperation should be developed to cultivate more safety professionals who are able to apply theory to practice.

Talent cultivation in safety engineering is a systematic and long-term project that shoulders heavy responsibilities, and there is an urgent need for a large number of security professionals to guarantee safety production in all walks of life in the new normal. By analyzing the talent demand and cultivation of safety engineering, the acute contradictions and problems in talent cultivation can be solved, which could help employ competent people and use their scientifically talent to improve society. Such an analysis would be expected to promote the sustainable development of safety professionals and the in-depth implementation of national strategy to reinvigorate China through human resource development, thus providing security personnel and intellectual support for the fundamental improvement of national safety production.

6. Conclusion

These findings of the research indicate that two types of safety engineering talent—academic and applied—should be cultivated and a new mechanism of school-enterprise cooperation should be established to cultivate the talent in the new normal of China. It is recognized that high-quality safety talent is the foundation of safety production as China enters new normal. Further, sufficient investigations should be made in future research on the application situation of school-enterprise cooperation in universities to verify the validity of the mechanism. All the efforts may provide strong support for safety production in China.

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