

# List of High-Demand Occupations for Foreign Talents in Qianhai

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## Preface

Qianhai is a “special zone” of the Shenzhen Special Economic Zone (SEZ) as its planning, implementation and facilitation has been directly instructed by General Secretary Xi Jinping, and it is also one of the fastest growing districts in China with the most satisfactory results and quality. Promotion of the opening up and cooperation in modern service industries has been a strategic choice for Qianhai to further transform its mode of economic development, comprehensively deepen reforms and expand the scope of opening up.

It is important to speed up the creation of a talent system with global competitiveness to attract talented people from all over the world for building a leading highland for agglomeration of modern service industries, implement the strategy of talent-driven development, pool outstanding human resources from all countries to support Qianhai's development, and comprehensively realize the strategic positioning of Qianhai as a “National Pilot Zone of Talent Management Reform”, “Shenzhen - Hong Kong Special Talent Zone”, “Innovation and Enterprise Base for Overseas High-Level Talents” and “Guangdong, Hong Kong and Macao Talent Cooperation Demonstration Zone”.

In this context, the preparation of a list of high-demand occupations for foreign talents in Qianhai has become a compelling task for attracting

high-level talents and various high-end elements of innovation in various fields to Qianhai. The release of a list of high-demand occupations for foreign talents in Qianhai is intended to comprehensively reflect the availability of and demand for talent resources in Qianhai, deeply analyze the strategic demand for high-level talents in industrial development plans, accurately address the demand of Qianhai enterprises for foreign talents, further improve the relevance, effectiveness and guidance of talent resources in the development of key industries, and better realize the positioning objectives and master plans of Qianhai's future development.

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# **1. Introduction**

## **1.1 General information**

This report describes and explains matters on preparation of the List of High-Demand Occupations for Foreign Talents in Qianhai through the literature review, on-site research, questionnaire surveys, expert regression survey, expert consultation and verification based on the projected development of Qianhai and the actual demand of local enterprises for talents.

## **1.2 Data sources**

The data contained in this report mainly come from statistics of questionnaire responses from enterprises, records of interviews, open information on official websites of Chinese and foreign governments, various statistical yearbooks and documents of policies and regulations.

## **1.3 Methodology of research**

The research mainly encompassed the authority for administration of foreign talents in Qianhai, the foreign talents working in Qianhai and more than 1,500 enterprises registered in Qianhai and having tax-payment records. See the appendix for more information on the methodology and other details of the research.

## 2. Overview of High-Demand Occupations

For the purpose of this report, **50 high-demand occupations** were identified according to the *Classification of Occupations of the People's Republic of China* (Ed. 2015) released by the Ministry of Human Resources and Social Security, the State Administration for Market Regulation, and the National Bureau of Statistics, and the 38 “new occupations”<sup>1</sup> in light of the strategic needs in Qianhai’s development and the actual demand of local enterprises for talents with reference to international principles on classification of occupations after having taken account of the comments given by experts, scholars and competent industry authorities. Among them, **29 are demand-oriented occupations (58%)** and have been identified with data from enterprise, while **21 are strategy-oriented occupations (42%)** and have been identified with data from strategic development plans of Qianhai, such as the Master Plan of Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone and the Comprehensive Plan of Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone.

### 2.1 High-demand occupations exist in every industry

In terms of industry, high-demand occupations for foreign talents exist in each of the modern service industries. Namely, the financial industry has

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<sup>1</sup> These include the first batch of 13 “new occupations” released in April 2019, the second batch of 16 “new occupations” released in February 2020, and the third batch of 9 “new occupations” released in July 2020.

8 high-demand occupations, the science and technology service industry has 15, the information service industry has 5, the modern logistics industry has 2, and the other professional service industries have 20.

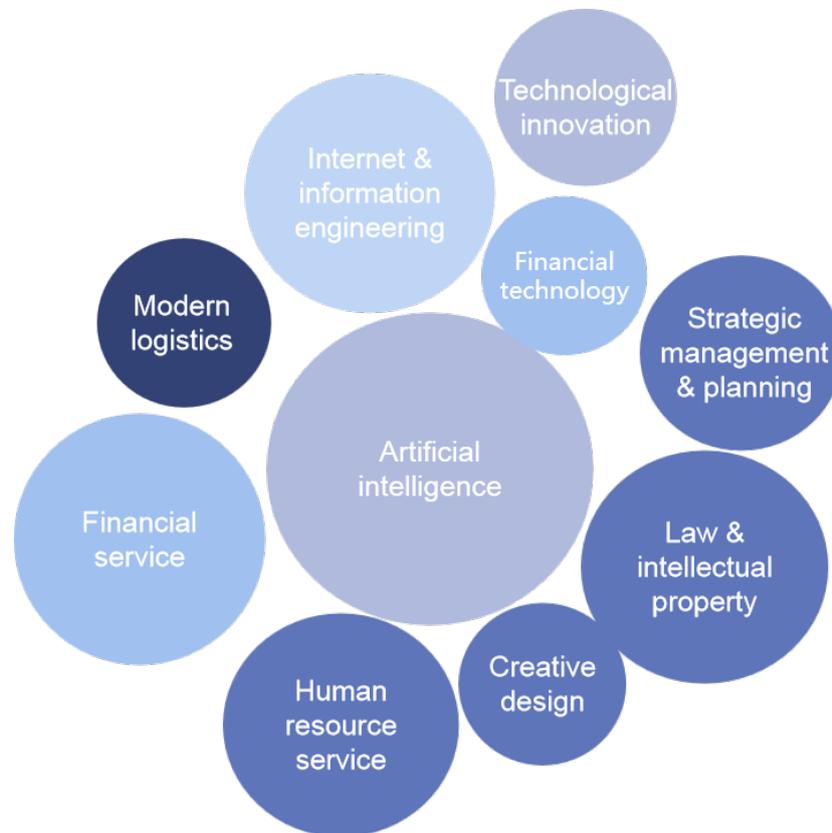


Figure 1: Overview of industries with high-demand occupations for foreign talents in Qianhai

## 2.2 International background and globalization as main reason for high demand

The data show that 38.46% of the surveyed enterprises are in urgent need of foreign talents because they “need ideas, methods or aesthetic perspectives different from those commonly found in China”. In addition, expansion of foreign markets, proven experience and guidance and overseas cooperation are also key reasons for domestic employers looking

for foreign talents. It is easy to see the demand for these occupations is high because foreigner talents are expected to provide the employers with **“irreplaceable and knowledgeable services”** which are **“obviously different from those readily available in the domestic market”**. At the same time, with **“leading technical insights and experience as well as global thinking and vision,”** they would assist employers to better expand in overseas markets, carry out transnational operations and engage in international trade and cooperation.



Figure 2: Comparison of reasons for the demand being high for foreign talents in Qianhai by occupation

### 2.3 Over 60% of the high-demand occupations will continue to face short supply in the future

In terms of how long the short supply is likely to last, the demand will

remain high for 34 (68%) of the 50 occupations in the long term (over 3 years), 13 (26%) in the short term (1-3 years) and only 3 (6%) in the near future (less than 1 year)". It is worth noting that the occupations with long-term high demand coincide with those proposed for the strategic talent reserves of Qianhai. This reflects the consistency between the regional development plans, the identified high-demand occupations and the supply and demand of talents.

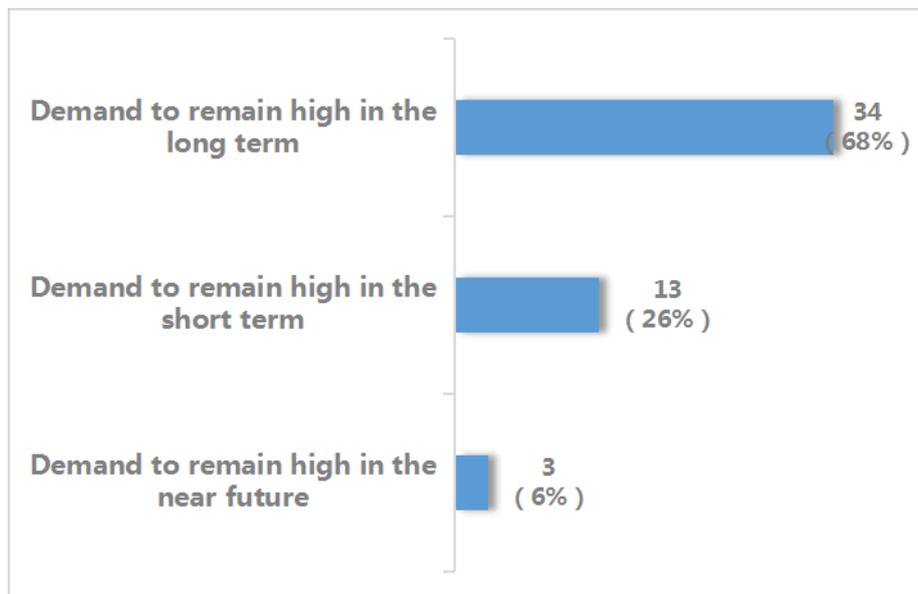


Figure 3: Comparison of duration of the demand to remain high for foreign talents in Qianhai by occupation<sup>2</sup>

## 2.4 More than 30% of the high-demand occupations are facing extremely short supply

In terms of the severity of short supply, 14 (28%) of the high-demand

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<sup>2</sup> Here a simplification method is adopted to clearly understand the difference in duration of the demand to remain high for foreign talents between occupations, and comprehensively consider the impact of weights on the final results. That is, the answers choosing the durations of "longer term (4-5 years)" and "long term (over 5 years)" in the questionnaires are combined into the duration of "long term (over 3 years)".

occupations are considered to face moderately short supply, 21 (42%) to face relatively short supply, and 15 (30%) to face extremely short supply . That is to say **more than 30% of the high-demand occupations are facing extremely short supply. Compared with other industries, the science and technology service industry and the information service industry will face severer short supply.**

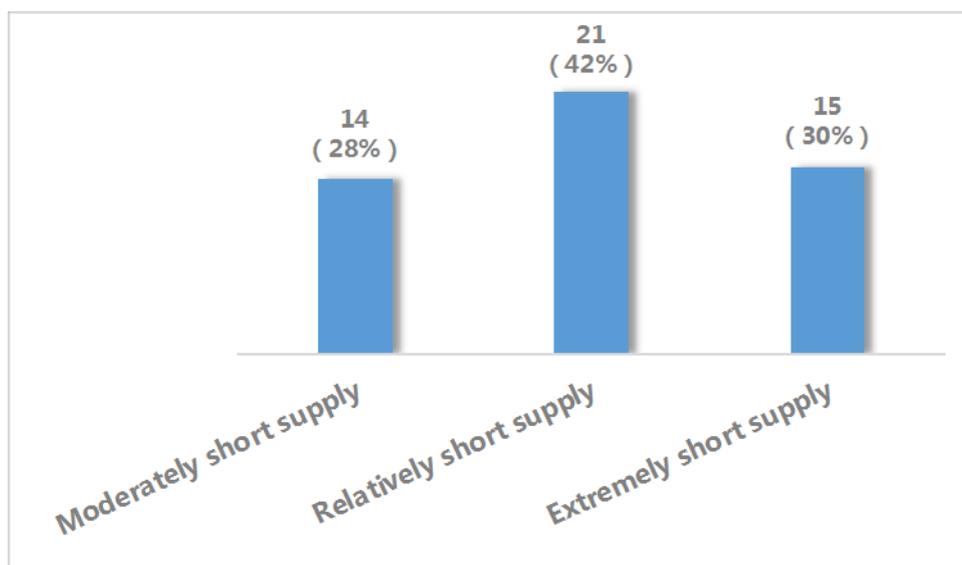


Figure 4: Comparison of severity of shortage of foreign talents in Qianhai by occupation

### 3. High-Demand Occupations and Competencies

#### 3.1 List of demand-oriented high-demand occupations

According to the data collected from key enterprises in Qianhai in connection with their demand for talent and the vacancies of Qianhai enterprises in recent years, 29 occupations have been identified as demand-oriented high-demand occupations (see Table 1). Among them, 5 come from the financial industry, 9 from the science and technology service

industry, 1 from the information service industry, 2 from the modern logistics industry and 12 from other professional service industries.

### **3.2 List of strategy-oriented high-demand occupations**

According to the master plans of industries and talent development of Qianhai, 21 occupations have been identified as strategy-oriented high-demand occupations (see Table 2). Among them, 3 come from the financial industry, 6 from the science and technology service industry, 4 from the information service industry and 8 from other professional service industry.

Table 1: List of demand-oriented high-demand occupations for foreign talents in Qianhai

Occupation	Requirements for occupational competencies	Requirements for specialist education	Requirements for working experience	Duration of demand to remain high	Severity of short supply	
<b>Financial industry</b>						
<b>1</b>	<b>Investment management specialist</b>	1. Professional knowledge of securities investment, strategy trading, etc.; 2. Ability of industry research and market analysis; 3. Market insights and risk control ability.	1. Economics, finance, investment, financial mathematics and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the short term (1-3 years)	Extremely short supply
<b>2</b>	<b>Capital operation specialist</b>	1. Professional knowledge of financial management, investment, financing, etc.; 2. Ability of operation management and macro analysis; 3. Ability of communication, coordination and resource consolidation.	1. Finance, business administration and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the short term (1-3 years)	Extremely short supply
<b>3</b>	<b>Financial planner</b>	1. Professional knowledge of financial instruments, tax planning, wealth distribution, financial law, etc.;	1. Economics, finance, taxation, law and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in	Extremely short supply

		2. Ability of market research and analysis; 3. Ability of communication and coordination, and awareness of customer service.			the short term (1-3 years)	
<b>4</b>	<b>Risk underwriter</b>	1. Professional knowledge of risk evaluation; 2. Being oriented to customer needs and problem solution; 3. Ability of risk control, judgment and decision-making.	1. Insurance, finance and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Extremely short supply
<b>5</b>	<b>Financial technology specialist</b>	1. Combined professional knowledge of technology and finance; 2. Ability of research, analysis and development; 3. Ability of pioneering and innovation.	1. Financial technology, economics, finance, computer science and other related specialties; 2. Doctor's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
<b>Science and technology service industry</b>						
<b>6</b>	<b>AI engineer</b>	1. Professional knowledge of artificial intelligence-related algorithms, deep learning, etc.; 2. Ability of research, analysis and development; 3. Ability of pioneering and innovation.	1. Computer science and other related specialties; 2. Master's degree (doctor's degree or postdoctoral education preferred).	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply

7	<b>AI trainer</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of database management, algorithm parameter setting, human-computer interaction design, etc.;</li> <li>2. Ability of design and data analysis;</li> <li>3. Ability of pioneering and innovation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Computer science and other related specialties;</li> <li>2. Bachelor's degree.</li> </ol>	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
8	<b>Industrial Internet specialist</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of Internet engineering, network security, etc.;</li> <li>2. Ability of research, design and development;</li> <li>3. Ability of pioneering, innovation and resource consolidation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Computer science, information engineering and other related specialties;</li> <li>2. Master's degree.</li> </ol>	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
9	<b>Blockchain scenario application engineer</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of blockchain technology, etc.;</li> <li>2. Ability of research, design and development;</li> <li>3. Ability of pioneering and innovation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Computer science, information and communication engineering and other related specialties;</li> <li>2. Bachelor's degree.</li> </ol>	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
10	<b>Virtual reality specialist</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of virtual reality;</li> <li>2. Ability of research, design and development;</li> <li>3. Ability of pioneering and innovation.</li> </ol>	<ol style="list-style-type: none"> <li>1. Computer science, software engineering, optoelectronic information science and engineering, simulation technology and other related specialties;</li> <li>2. Master's degree.</li> </ol>	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

11	<b>Geophysical science and technology specialist</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of geophysics, etc.;</li> <li>2. Ability of investigation, research and macro planning;</li> <li>3. Ability of pioneering, innovation and problem solution.</li> </ol>	<ol style="list-style-type: none"> <li>1. Geophysics, space science and technology and other related specialties;</li> <li>2. Doctor's degree.</li> </ol>	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Moderately short supply
12	<b>Marine space science and technology specialist</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of marine science, engineering design, etc.;</li> <li>2. Ability of investigation, research and design;</li> <li>3. Ability of pioneering, innovation and problem solution.</li> </ol>	<ol style="list-style-type: none"> <li>1. Specialty of ship and marine engineering;</li> <li>2. Master's degree.</li> </ol>	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Moderately short supply
13	<b>Consultant for commercialization of scientific research achievements</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of investment and financing, technology transfer and industrialization, intellectual property rights, etc.;</li> <li>2. Ability of evaluation and diagnosis and awareness of customer service;</li> <li>3. Ability of resource consolidation and problem solution.</li> </ol>	<ol style="list-style-type: none"> <li>1. Engineering, science, management science, finance, economics, law and other related specialties;</li> <li>2. Master's degree.</li> </ol>	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
14	<b>Executive in charge of technological innovation</b>	<ol style="list-style-type: none"> <li>1. Professional knowledge of enterprise management;</li> <li>2. Ability of strategic planning and forward-looking innovation;</li> </ol>	<ol style="list-style-type: none"> <li>1. Engineering, science, law, management science and other related specialties;</li> </ol>	More than 10 years of related experience	Demand to remain high in	Moderately short supply

		3. Ability of resource consolidation, leadership and management.	2. Master's degree (doctor's degree preferred).		the long term (>3 years)	
<b>Information service industry</b>						
15	<b>Information system management specialist</b>	1. Professional knowledge of information security, information engineering, etc.; 2. Ability of research, development and system evaluation; 3. Ability of pioneering, innovation and emergency response.	1. Computer science, information and communication engineering and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the near future (<1 year)	Extremely short supply
<b>Modern logistics industry</b>						
16	<b>Supply chain management specialist</b>	1. Professional knowledge of supply chain management; 2. Ability of research design and macro analysis; 3. Ability of pioneering, innovation and resource consolidation.	1. Engineering and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
17	<b>Logistics equipment and R&amp;D specialist</b>	1. Professional knowledge of logistics management, logistics engineering, etc.; 2. Ability of R&D and design; 3. Ability of pioneering and innovation.	1. Engineering and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the near future (<1 year)	Moderately short supply
<b>Professional service industry</b>						

18	<b>Intelligent industrial design specialist</b>	1. Professional knowledge of intelligent industry, interaction design, etc.; 2. Ability of research, design and development; 3. Ability of pioneering, innovation, and problem analysis and solution.	1. Industrial design, behavioral science and design, and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Extremely short supply
19	<b>Creative product design specialist</b>	1. Professional knowledge of product design, arts and crafts, etc.; 2. Ability of market analysis, design and R&D; 3. Ability of pioneering, innovation, communication and coordination.	1. Design and other related specialties; 2. Bachelor's degree.	More than 3 years of related experience	Demand to remain high in the short term (1-3 years)	Relatively short supply
20	<b>Digital media art specialist</b>	1. Professional knowledge of art, science and technology, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Digital media art and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the near future (<1 year)	Relatively short supply
21	<b>International construction engineering specialist</b>	1. Professional knowledge of building and structure design, project management, etc.; 2. Ability of design and development, and comprehensive planning;	1. Environmental art, architecture, fine arts and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Relatively short supply

		3. Ability of pioneering and innovation, and international cultural background				
22	<b>High-end property management specialist</b>	1. Professional knowledge of property management, asset management, etc.; 2. Ability of market development and consciousness of customer service; 3. Ability of communication, coordination and emergency response.	1. Management and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Relatively short supply
23	<b>International channel and marketing specialist</b>	1. Professional knowledge of marketing, channel development, product operation, etc.; 2. Ability of market analysis, forecast and evaluation; 3. Ability of communication, coordination and emergency response.	1. Marketing, international trade and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
24	<b>International trade and business operation specialist</b>	1. Professional knowledge of cross-border trade, business operation, etc.; 2. Ability of market analysis and business negotiation; 3. Ability of resource consolidation, communication and coordination.	1. International economy and trade, business administration, international economic law and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Moderately short supply

25	<b>Intelligent project management specialist</b>	1. Professional knowledge of project management and information management, and PMP, Agile PMP and other qualification certificates; 2. Ability of organization, planning, forecasting and evaluation; 3. Ability of leadership, management, communication and coordination.	1. Management science and engineering, information engineering and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
26	<b>Technological innovation investment specialist</b>	1. Professional knowledge of investment and financing, innovative technology, etc.; 2. Ability of research, analysis and strategic planning; 3. Ability of pioneering, innovation, prediction and evaluation.	1. Finance, economics, financial management and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
27	<b>International standardization research specialist</b>	1. Professional knowledge of standardization engineering, international technical standards, etc.; 2. Research ability and international vision; 3. Ability of pioneering and innovation.	1. Business administration and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
28	<b>Strategy and policy research specialist</b>	1. Professional knowledge of strategic planning, policy research, etc.; 2. Research and macro planning capability;	1. Public administration, administration management, business administration, finance,	More than 3 years of related experience	Demand to remain high in the short	Moderately short supply

		3. Ability of problem analysis and solution, and prediction and evaluation.	economics, international relations and other related specialties; 2. Master's degree.		term (1-3 years)	
<b>29</b>	<b>Strategic planning and management specialist for international operations</b>	1. Professional knowledge of plan preparation, project analysis, strategic evaluation, etc.; 2. Research ability and international vision; 3. Ability of pioneering, innovation, prediction and evaluation.	1. Economics, finance and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the short term (1-3 years)	Moderately short supply

Table 2: List of strategy-oriented high-demand occupations for foreign talents in Qianhai

Occupation		Requirements for occupational competencies	Requirements for specialist education	Requirements for working experience	Duration of demand to remain high	Severity of short supply
<b>Financial industry</b>						
1	<b>Multinational asset management specialist</b>	1. Professional knowledge of international investment and financing, asset management, etc.; 2. Ability of international market research and risk management; 3. Ability of resource consolidation, prediction and evaluation.	1. Economics, management science, law and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
2	<b>Actuary</b>	1. Professional knowledge of actuarial valuation, etc.; 2. Ability of research and analysis; 3. Ability of prediction and evaluation.	1. Actuarial science, financial mathematics, applied economics, management science and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
3	<b>Asset appraiser</b>	1. Professional knowledge of asset appraisal, etc.; 2. Ability of research and analysis; 3. Ability of prediction, evaluation and communication.	1. Management science, economics and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Moderately short supply
<b>Science and technology service industry</b>						

4	<b>IoT architect</b>	1. Professional knowledge of IoT engineering, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Computer science, software engineering and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
5	<b>Intelligent manufacturing specialist</b>	1. Professional knowledge of intelligent manufacturing, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Computer science and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
6	<b>Blockchain engineer</b>	1. Professional knowledge of block chain platform architecture, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Computer science, information and communication engineering and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
7	<b>Additive manufacturing specialist</b>	1. Professional knowledge of additive manufacturing, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Computer science, software engineering, material engineering, mechanical engineering and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

8	<b>Electronic material specialist</b>	1. Professional knowledge of semiconductor, optical fiber materials, integrated circuits, etc.; 2. Ability of research, design and development; 3. Ability of pioneering and innovation.	1. Integrated circuit design, semiconductor, material engineering, electronic engineering and other related specialties; 2. Bachelor's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
9	<b>Basic science research and application innovation specialist</b>	1. Professional knowledge of basic science, etc.; 2. Ability of research and development; 3. Ability of pioneering and innovation.	1. Science, technology, engineering, mathematics and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Extremely short supply
<b>Information service industry</b>						
10	<b>Big data engineer</b>	1. Professional knowledge of big data management and application, etc.; 2. Ability of research, development, analysis and application; 3. Ability of pioneering and innovation.	1. Computer science, information and communication engineering and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
11	<b>Cloud computing specialist</b>	1. Professional knowledge of cloud computing technology, etc.; 2. Ability of research, development, analysis and application; 3. Ability of pioneering and innovation.	1. Computer science, information and communication engineering and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

12	<b>Engineering information modeling specialist</b>	1. Professional knowledge of project management, information modeling, etc.; 2. Ability of research, analysis and macro planning; 3. Ability of problem analysis and solution.	1. Architecture, information and communication engineering and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
13	<b>Enterprise digitalization manager</b>	1. Professional knowledge of enterprise management, digital engineering, etc.; 2. Ability of research, analysis and macro planning; 3. Ability of prediction and evaluation.	1. Computer science, information and communication engineering and other related specialties; 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
<b>Professional service industry</b>						
14	<b>Intellectual property management specialist</b>	1. Professional knowledge of intellectual property laws and international rules, etc.; 2. Ability of communication and negotiation; 3. Ability of logical thinking.	1. Law and other related specialties (science and engineering background preferred); 2. Master's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
15	<b>Cross-border dispute resolution lawyer</b>	1. Professional knowledge of international trade laws and rules, etc.; 2. Ability of communication and negotiation;	1. Law, international trade and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

		3. Ability of logical thinking.				
16	<b>International human resource service headhunter</b>	1. Professional knowledge of intermediary services, etc. for international human resources; 2. Communication ability and international vision; 3. Ability of resource consolidation.	1. Human resources and other related specialties; 2. Bachelor's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
17	<b>Occupational training and talent development specialist</b>	1. Professional knowledge of occupational ability training and development, etc.; 2. Ability of research, design, and problem analysis and solution. 3. Ability of communication and coordination.	1. Education, psychology, media and other related specialties; 2. Bachelor's degree.	More than 1 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
18	<b>Occupational certification and evaluation specialist</b>	1. Professional knowledge of mutual recognition of occupational qualifications, etc.; 2. Research ability and international vision; 3. Ability of problem analysis and solution.	1. Human resources and other related specialties; 2. Bachelor's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
19	<b>Remuneration design specialist</b>	1. Professional knowledge of remuneration schemes, performance management, etc.; 2. Ability of research, and problem analysis and solution;	1. Human resources and other related specialties; 2. Bachelor's degree.	More than 1 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

		3. Ability of communication and coordination.				
20	<b>Immigration management specialist</b>	1. Professional knowledge of immigration regulations, etc.; 2. Ability of research and market analysis; 3. Ability of communication and awareness of customer service.	1. Foreign language, law and other related specialties; 2. Bachelor's degree.	More than 3 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply
21	<b>Cross-culture management specialist</b>	1. Professional knowledge of social psychology, etc.; 2. International cultural background and international vision; 3. Ability of communication and coordination.	1. Human resources, psychology, sociology, management science and other related specialties; 2. Master's degree.	More than 5 years of related experience	Demand to remain high in the long term (>3 years)	Relatively short supply

### 3.3 High demand for candidates from specialties of data science, finance and economics

In terms of professional requirements, the high-demand occupations pose high requirements for professional competencies of foreign talents by generally limiting vacancies to specified specialties of study. Graduates of specialties such as data science, information engineering, finance, economics, business administration and law are given more opportunities than their peers. Some jobs have clear requirements for professional qualification and certification, such as PMP, CFA, CPA and ACCA. This suggests that employers are paying attention to the professional qualification which reflects the level of professional competencies in various fields, especially combining and matching of vocational qualification requirements for some emerging occupations.

Table 3: The three categories of specialties given the most opportunities in application of jobs

1	2	3
<p>Data science and information engineering</p> <ul style="list-style-type: none"> <li>• AI trainer</li> <li>• Intelligent industrial design specialist</li> <li>• Blockchain scenario application engineer</li> <li>• Virtual reality specialist</li> <li>• Geophysical science and technology specialist</li> <li>• Marine space science and technology specialist</li> <li>• Information system management specialist</li> <li>.....</li> </ul>	<p>Finance and economics</p> <ul style="list-style-type: none"> <li>• Financial technology specialist</li> <li>• Investment management specialist</li> <li>• Capital operation specialist</li> <li>• Risk underwriter</li> <li>• Technological innovation investment specialist</li> <li>• Financial planner</li> <li>• Strategic planning and management specialist for international operations</li> <li>.....</li> </ul>	<p>Business administration and law</p> <ul style="list-style-type: none"> <li>• Industrial Internet specialist</li> <li>• Executive in charge of technological innovation</li> <li>• Consultant for commercialization of scientific research achievements</li> <li>• Strategy and policy research specialist</li> <li>• International standardization research specialist</li> <li>• International trade and business operation specialist</li> <li>• International channel and marketing specialist</li> <li>.....</li> </ul>

### 3.4 A master's degree or above is generally required

In term of education, **employers generally require candidates to have master's degrees or above**, while a small portion of vacancies are also open to university degrees. By industry, **the financial industry and the technology service industry have relatively higher requirements for the education of candidates, especially when holders of doctoral degrees are preferred for some jobs in technology service industry.** Most enterprises of the information service industry and other professional service industries require candidates to have master's degrees, while those of the modern logistics industry has relatively lower requirements with university degrees being sufficient.

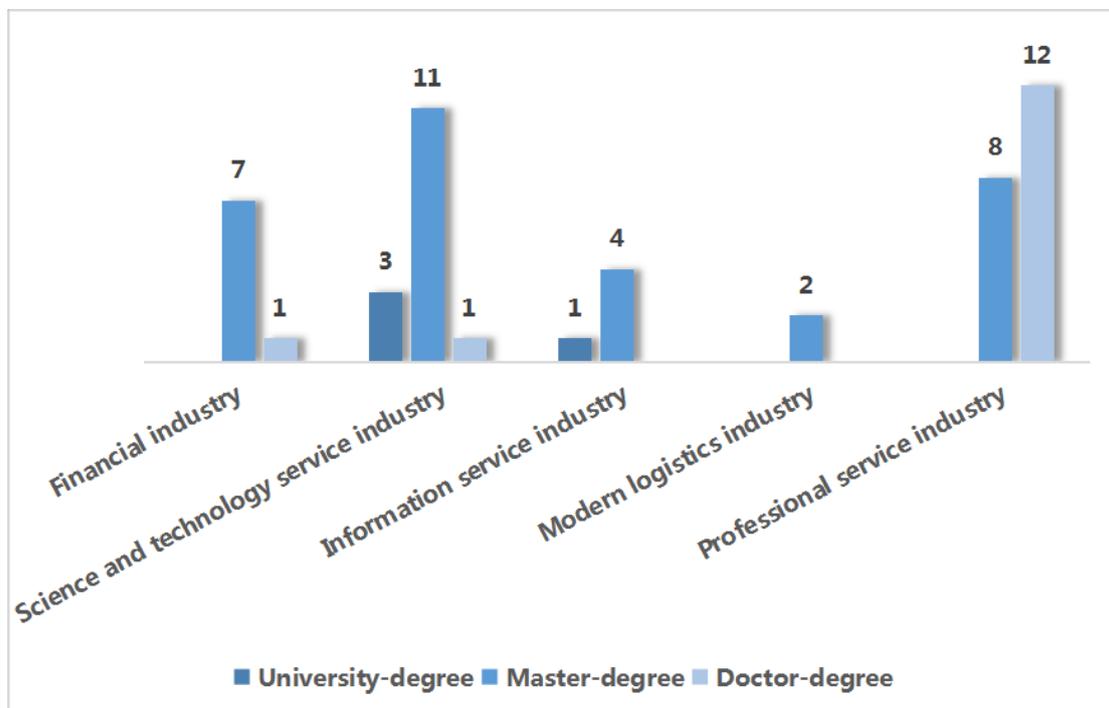


Figure 5: Minimum education requirements of high-demand occupations in some industries

### 3.5 More than three years of working experience is required

In terms of requirements for working experience, **the candidates of high-demand occupations are generally required to have more than 3 years of experience in related industries and activities.** Generally, more jobs of the financial industry require more than 5 years' experience in related industries compared with other industries, while 100% of the enterprises in their mature stage require more than 5 years' experience in related industries. In addition, the employers attach special importance to “having worked in leading and driving well-known projects in the industry”, “opening up influential emerging business lines or new markets” and “serving as executives of Fortune 500 companies”. These requirements also correspond to the reasons mentioned above for the short supply.

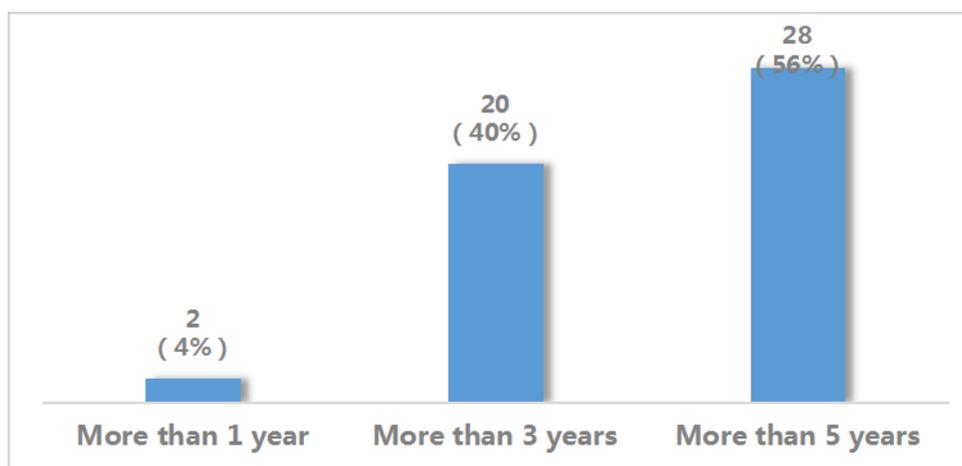


Figure 6: Minimum requirements of high-demand occupations for years of working experience<sup>3</sup>

### 3.6 Employers pay more attention to ability of pioneering, innovation,

<sup>3</sup> For simplification, jobs with requirements for more than 6 years or 5-10 years of working experience are included in the “more than 5 years” option.

## problem solution, communication and coordination

In terms of ability, **employers pay more attention to the ability of candidates for pioneering, innovation, problem solution, communication and coordination.** By industry, enterprises of the financial industry and technology service industry focus on the “ability of pioneering and innovation” and “ability of problem solution”, while the information service industry and professional service industry focus on “ability of communication and coordination”. This suggests that in the modern service industries, employers not only pay attention to the “hard ability” of candidates, but also emphasize “soft ability” of candidates.

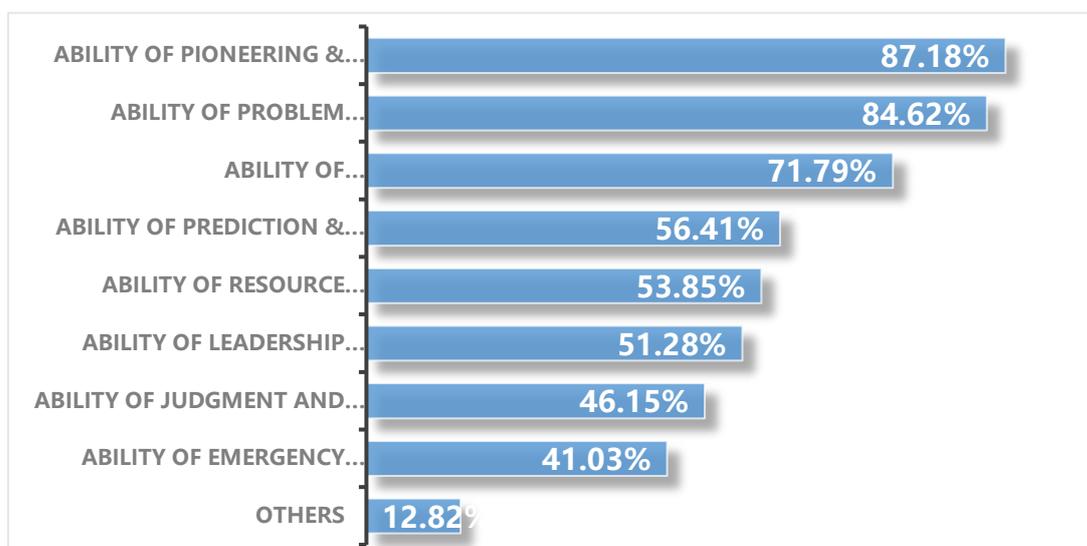


Figure 7: Ability of candidates the most valued by employers

## 4. International Talent Service in Qianhai

By 2020, there are 154,000 enterprises with a total registered capital of CNY 9.69 trillion in Qianhai, including 303 invested by Fortune 500 companies and 905 invested by listed companies of Mainland China, and

providing ample space of career development for talents continuously. Qianhai has been actively building a system of policies supporting the development of foreign talents in Qianhai. For example, the “personal income tax rate of 15%”, similar to the scheme in Hong Kong, is applicable to overseas high-end talents working here. Qianhai issued the first “Chinese green card” in Guangdong Province. Chinese green cards are granted to foreigners based on their technical credits. It worked to facilitate the issuance of Guangdong's first two visas for foreign housekeepers hired by foreign talents working here. These efforts are intended to provide maximal convenience for foreign talents working and living in China.

The Qianhai International Talent Service Workstation, located at A211 of the Electronic One-Stop Service Center of Qianhai, Shenzhen, is committed to provision of “full-ecosystem, integrated and internationalized” one-stop services to foreign talents. At present, the workstation has consolidated 243 formalities which were previously distributed among the Municipal Science and Technology and Innovation Commission, the Municipal Public Security Bureau and the Municipal Human Resources and Security Bureau in connection with entry and exit of foreign citizens and residents of Hong Kong, Macao and Taiwan. It provides one-stop services to facilitate entry and exit matters for foreigners related to work and residence permits, permanent residence, visas, documents for temporary residence, recommendation letters for permanent residence of foreign talents, sand box for foreign exchange supervision, etc.

The mission of the center is to improve the level of talent services and optimize the business environment, and the center has been working to innovate and build a convenient and efficient talent service system, and undertake tasks for finding and communicating with international talents, talent qualification and public services, talent exchange activities, etc.

Address: The Electronic One-Stop Service Center of Qianhai, No. 19  
Qianhai 1st Road, Nanshan District, Shenzhen

Tel: 0755-36667588

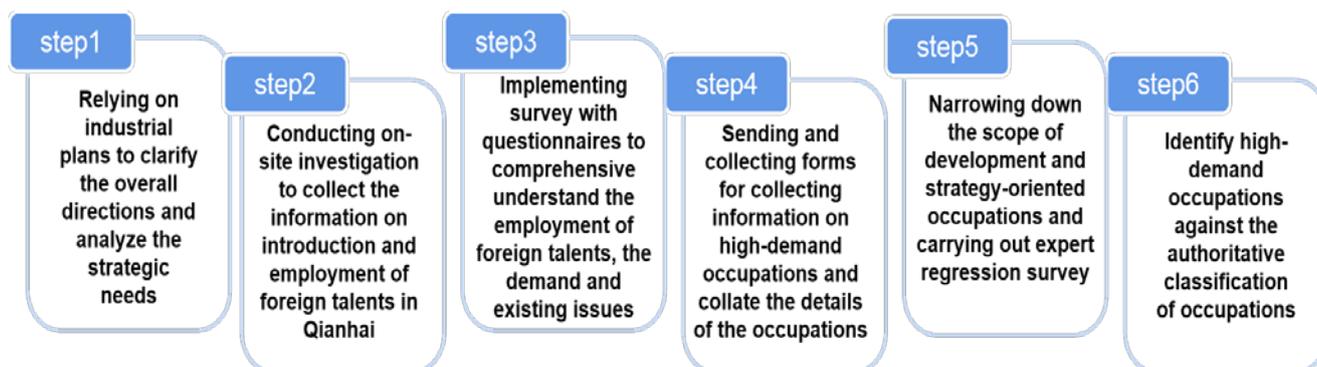
Email:qhrc@szqh.gov.cn

## Appendix: Methodology and Other Details of Research

To drive the efforts for building Qianhai into a highland of international talents, the Qianhai Administration Bureau has engaged the Chinese Academy of Personnel Science to prepare the List of High-Demand Occupations for Foreign Talents in Qianhai 2020 after the research conducted from October 2019 to August 2020.

### 1. Methodology of Research

This report has been prepared after the research through the literature review, on-site research, questionnaire surveys, expert regression survey, expert consultation and verification. The process of the research has been summarized below:



### 2. Collect of Information on High-Demand Occupations

To better address the needs for foreign talents of enterprises and understand the detailed basic requirements of employment in high-demand occupations, the survey mainly collected the following data:

### (1) Names of high-demand occupations

### (2) Job requirements

- Requirements for professional knowledge
- Requirements for education
- Requirements for qualifications
- Requirements for experience in related industries and activities
- Requirements for performance
- Requirements for competencies
- Requirements for occupational qualities

### (3) Severity of short supply

- Reasons for short supply
- Gap of supply
- Duration of demand to remain high
- Severity of short supply

## **3. Definitions**

### ➤ Occupation

Occupations have appeared when the social productivity develops to a certain stage and are important means for individuals to obtain material necessities of life and spiritual satisfaction. In the modern sense, an occupation refers to a stable division of labor or role assumed by an individual to meet his or her physical and psychological needs. To be called an occupation, it must have sufficient workers engaged in corresponding

activities as the result of social and economic development, and have a relatively independent and established set of professional and skill requirements.

The occupations referred to this report is based on the Classification of Occupations of the People's Republic of China (Ed. 2015) and the 38 new occupations emerging in recent two years in light of the strategic needs in Qianhai's development and the actual requirements of local enterprises for occupations open to foreign talents with reference to international principles on classification of occupations. They are intended to more accurately address the actual demand of enterprises for talents and be adapted to the general understanding of international talents with respect to these occupations.

➤ *Foreign talent*

A foreign talent refers to an individual who has foreign nationality other than the host country or region and is able make considerable contribution to social development and human progress with their creative work. They are considered workers with high ability and quality in the pool of human resources.

➤ *High-demand occupation*

“High demand” is usually used to describe the fact that a certain type of resources is of short supply at present while it is critical to the development of an organization. Generally a high-demand occupation is

identified based on three indicators. The first is that the number of talents is in short supply; the second is that the gap between the supply and demand is large; the third is that this type of talents is critical to the development of an organization in a certain period of time.

➤ *Occupation List System*

An occupation list system contains lists of occupations which have been prepared by a competent migration or labor authority of a country or by an organization as engaged by the authority. These lists define occupations open to foreigners or immigrants according to the situation of the labor market of the country. It is an important part of skilled migration programs to clearly state which occupations allow, encourage or disallow skilled immigrants to work and the criteria for applications for entry and work in the country.

➤ *List of High-Demand Occupations for Foreign Talents in Qianhai*

The “List of High-Demand Occupations for Foreign Talents in Qianhai” referred to this report means the list prepared for the implementation of skilled immigration and accurate introduction of foreign talents urgently needed by enterprises based on classification of occupations. International talents who are engaged in the occupations listed in the list may apply for work or permanently reside in China and be exempted from the labor market test and employer invitation, provided

they pass the credit points assessment. To better serve the development of service industries and accurately address the talent demand of enterprises, the list is subject to periodical update.