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## Employment trends and challenges for economics and management graduates: Insights from 2018–2023

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### Abstract

The employment of university graduates is a matter of national priority in China, influencing economic stability and social development. This study examines employment data of economics and management graduates in Guangdong Province from 2018 to 2023, revealing imbalances in employment structure, regional disparities, and lower rates of graduate studies or international opportunities. Recommendations are proposed for improving employment outcomes from the perspectives of government, universities, and graduates.

**Keywords:** Higher education; College graduates; Employment quality; Economics and management; Guangdong Province

### 1. Introduction

Employment is a cornerstone of societal stability and economic development, serving as a critical indicator of a nation's progress and the effectiveness of its educational system. In China, the employment outcomes of university graduates have become a focal point of government, institutional, and public discourse. The dynamic interplay between higher education and the labor market presents both opportunities and challenges, particularly in fields with broad societal impact, such as economics and management. In one of its provinces specifically Guangdong, a major economic and educational hub, stands at the forefront of these discussions. With 175 institutions of higher learning and a steadily growing student population of nearly 2.67 million as of 2023, the province is uniquely positioned to reflect broader national trends. Among these institutions, economics and management programs have garnered significant popularity, attracting a substantial number of students due to their perceived alignment with market demands and career opportunities. However, despite this popularity, the employment outcomes of economics and management graduates reveal persistent issues requiring attention.

In fact, recent studies highlight the complex employment landscape for economics and management graduates. Graduates face challenges in adapting to an ambiguous future of work, with psychological strengths, skill enhancement, and a future-oriented mindset identified as key areas for development [28]. From 2018 to 2023, the number of economics and management graduates in Guangdong Province exhibited steady growth, driven by an increase in undergraduate enrollments. However, this quantitative expansion has not necessarily translated into qualitative improvements in employment outcomes. Structural imbalances in talent training, regional employment disparities, and limited opportunities for graduate studies or international exposure have emerged as critical challenges. These issues are compounded by an evolving labor market increasingly shaped by technological advancements, such as big data,

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artificial intelligence, and digital transformation, which demand a new caliber of professionals with multidisciplinary expertise and innovative mindsets.

Employers often report mismatches between acquired and required skills, emphasizing the importance of attributes such as communication, teamwork, problem-solving, and technological skills [25]. These findings underscore the need for universities to align their curricula with industry demands and prepare graduates for sustainable careers in an evolving job market. This study aims to explore the employment outcomes of economics and management graduates in Guangdong Province over six years (2018–2023). Drawing on comprehensive data from provincial employment quality reports, the study seeks to identify patterns, challenges, and opportunities in graduate employment. Specific areas of focus include the distribution of graduates across educational levels, regional employment trends, professional relevance, and graduate studies or international mobility rates.

By highlighting these challenges and their implications, this research underscores the urgent need for systemic reforms. It calls for collaborative efforts among government policymakers, higher education institutions, and graduates to align talent training with labor market demands. Hopefully, this study aims to contribute to the ongoing discourse on improving employment outcomes for graduates in fields critical to economic and social progress, offering evidence-based recommendations to address the gaps.

### **1.1. Importance of the Study**

This study addresses key issues related to the employment outcomes of economics and management graduates in Guangdong Province, providing valuable insights for policymakers, educational institutions, and students. By analyzing employment trends and challenges, the research informs policies aimed at enhancing graduate employability and addressing regional employment disparities, supporting the province's economic and social development goals. It highlights the need for universities to rethink educational strategies and align curricula with labor market demands, fostering more effective talent development programs. Additionally, the study draws attention to regional imbalances in employment, offering evidence to help distribute talent more equitably across the province. Furthermore, by emphasizing the importance of graduate studies and international mobility, the research encourages the development of programs that enhance global competitiveness. Hopefully, this study will serve as a practical guide for students, universities, and policymakers, offering strategies for improving graduate employment outcomes and ensuring a sustainable, inclusive labor market in Guangdong.

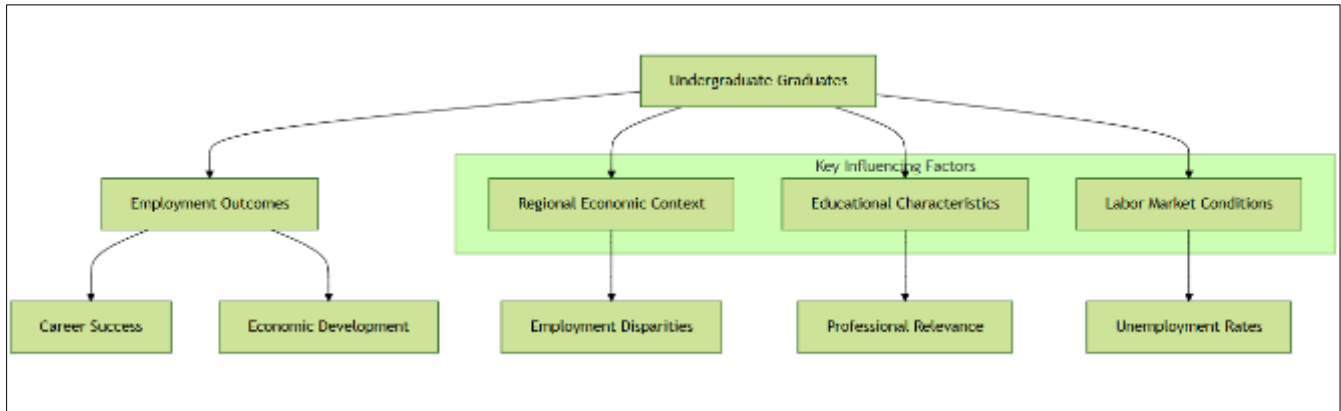
### **1.2. Statement of the Problem**

- How does the disproportionate number of undergraduate graduates, compared to graduate and junior college students, impact the overall employment outcomes for economics and management graduates in Guangdong Province?
- What factors contribute to the significant concentration of economics and management graduates in the Pearl River Delta, and how do regional employment disparities affect economic development in Guangdong Province?
- What are the primary reasons behind the low rates of graduate studies and international mobility among economics and management graduates in Guangdong Province?
- What factors contribute to the underemployment of economics and management graduates in Guangdong Province, particularly those with advanced degrees?
- To what extent does the lack of professional relevance between economics and management graduates' education and their employment impact their career success and satisfaction?
- What are the key factors contributing to the persistent unemployment of economics and management graduates in Guangdong Province from 2018 to 2023?

### **1.3. Related literature**

China's labor market has undergone significant transformation, transitioning from state control to a more market-oriented system [13]. Despite progress, challenges persist, including absorbing surplus rural labor and adjusting to WTO accession [4]. However, evidence suggests rapid labor market development, increasing integration, and growing labor scarcity [12]. Key issues include labor-management conflicts, integrating university graduates into the workforce, and incorporating rural and informal sector workers into the modern economy [13]. Additionally, China faces challenges related to its aging population, impacting labor supply and social security systems [12]. To address these issues, policies should focus on encouraging private sector growth, reducing barriers to labor mobility, improving worker skills, and strengthening social safety nets [4]. Learning from international experiences, such as Japan's elderly-friendly work policies, may help China develop innovative solutions for managing its aging human capital [12].

Human resources refers to the health, skills, knowledge, and abilities of individuals, workforces, or populations [38][39]. It is a crucial factor in improving living standards and productivity. Investments in human capital, such as education and training, can yield future returns and increase an individual's productive capacity [10]. The development of human capital is both a microeconomic decision and a macroeconomic issue, with implications for economic growth [39]. Mass education and public health play significant roles in creating and maintaining human capital [38]. Human capital formation has been a central focus of economics since the 1960s and has become integral to neoclassical growth theory [39]. The process of investing in human capital typically involves long-term commitments, such as formal education, on-the-job training, and life experiences [11].



**Figure 1** Conceptual Framework

Research indicates that educational credentials and skills contribute to individual productivity and economic outcomes, with credentials generally yielding higher returns [1]. However, as education expands, the value of credentials decreases while skills maintain their premium [1]. The link between education and productivity is complex, involving factors such as educational attainment, achievement, and adult literacy [21]. While education positively impacts individual earnings and macroeconomic productivity, the magnitude of these benefits and their distribution require careful consideration [32]. Moreover, the relationship between local knowledge, academic skills, and productivity is often oversimplified in educational reform efforts, potentially leading to inaccurate assessments of productive capacity and underdeveloped curricular reforms [4]. Higher education graduates may face increased unemployment and decreased employment rates in some contexts [37]. Countries with higher average public expenditure on education over 10 years tend to have higher employment rates [15]. Understanding these nuanced connections is crucial for developing effective policies that enhance individual productivity and economic value through education and skills development.

## 2. Methodology

This study utilizes a qualitative and quantitative research approach to analyze employment trends and challenges faced by economics and management graduates in Guangdong Province from 2018 to 2023. The research is based on secondary data obtained from the **College Graduates Employment Quality Reports** for the specified years. These reports serve as the primary source of data, providing detailed statistics on graduate proportions across educational levels, regional employment distributions, initial employment rates, further studies, international mobility, professional relevance, and unemployment rates.

The analysis employs descriptive statistical methods to summarize and interpret the data. Percentage analysis is used to determine the distribution of graduates by educational levels, employment regions, and the rates of further studies and unemployment. Trend analysis is applied to identify year-over-year changes in employment rates, professional relevance, and other key metrics, while comparative analysis highlights differences in employment outcomes across graduate, undergraduate, and junior college students. Implicit correlation analysis is used to infer relationships between variables, such as the impact of educational structure on employment outcomes and regional employment disparities.

While this methodology provides robust insights into employment patterns, it is limited by its reliance on secondary data, which does not capture qualitative aspects such as personal career satisfaction or the reasons behind employment mismatches. Nevertheless, the quantitative approach effectively addresses the study's objectives and offers a comprehensive understanding of employment trends and challenges in Guangdong Province.

### 3. Employment Trends of Economics and Management Graduates

#### 3.1. Scale of Graduates

Table 1 reveals a profound transformation in the educational landscape of Economics and Management graduates in Guangdong Province from 2018 to 2023, characterized by a strategic and deliberate shift towards undergraduate education. Over these six years, undergraduate enrollment experienced a remarkable 34.88% growth, escalating from 66,019 to 89,044 students, which strongly suggests a significant societal recalibration of educational preferences and potential labor market demands. Simultaneously, junior college enrollments witnessed a gradual decline, decreasing by 2.09% and punctuated by a sharp 9.76% drop in 2023, indicating a potentially accelerating move away from shorter-term educational programs. Graduate student populations maintained remarkable stability, demonstrating modest growth of 7.94% and reflecting a measured approach to advanced educational pursuits. The aggregate graduate numbers remained remarkably consistent, growing by 16.43% and suggesting an underlying systemic balance despite internal educational shifts. This data fundamentally points to a strategic educational evolution, potentially mirroring broader economic transformations, where four-year degree programs are increasingly viewed as essential for navigating increasingly complex professional landscapes, signaling a collective investment in more comprehensive and in-depth educational experiences in the Economics and Management domains. Students in four-year programs demonstrate better performance on indicators of desired graduate attributes and holistic development [33].

**Table 1** Number of Economics and Management Graduates in Guangdong Province (2018–2023)

Year	Graduate Students	Δ%	Undergraduate	Δ%	Junior College	Δ%	Total Graduates	Δ%
2018	4,164	+11.18	66,019	+5.55	63,834	+4.50	134,017	+5.23
2019	4,394	+5.52	72,481	+9.79	69,827	+9.39	146,702	+9.47
2020	4,049	-7.85	75,146	+3.68	65,449	-6.27	144,644	-1.40
2021	4,374	+8.03	80,602	+7.26	70,088	+7.09	155,064	+7.20
2022	4,155	-5.01	82,635	+2.52	69,267	-1.17	156,057	+0.64
2023	4,495	+8.18	89,044	+7.76	62,506	-9.76	156,045	-0.01
Total Growth	+7.94%	-	+34.88%	-	-2.09%	-	+16.43%	-

#### 3.2. Educational Levels

**Table 2** Educational Level Proportion of Economics and Management Graduates (2018–2023)

Academic Level	Group	2018	2019	2020	2021	2022	2023	Trend
Postgraduate	Management Class	3.11	3.00	2.80	2.82	2.66	2.88	↔ Stable
	Whole Province	5.29	4.98	4.96	4.70	4.81	5.07	↔ Stable
Undergraduate	Management Class	49.26	49.41	51.95	51.98	52.95	57.06	↑ Strong Increase
	Whole Province	45.36	44.79	45.56	45.62	46.00	48.36	↑ Moderate Increase
Junior College	Management Class	47.63	47.59	45.15	46.20	45.39	40.06	↓ Significant Decline
	Whole Province	49.35	50.23	49.48	49.68	49.19	46.57	↓ Moderate Decline

Undergraduates constituted the majority of graduates, with the proportion steadily increasing, while graduate students remained a minority as seen in Table 2. This disparity highlights an imbalance in talent development, with a potential oversupply of undergraduates. The educational landscape for Economics and Management graduates from 2018 to 2023 reveals nuanced shifts across postgraduate, undergraduate, and junior college levels. Postgraduate graduation rates demonstrated remarkable stability, with the management class hovering between 2.66% and 3.11%, while the whole province maintained similarly consistent rates between 4.70% and 5.29%. The most pronounced transformation occurred in undergraduate education, where the management class experienced a significant upward trajectory, escalating from 49.26% in 2018 to an impressive 57.06% by 2023. The whole province mirrored this trend, albeit with a more modest increase from 45.36% to 48.36%. Conversely, junior college graduation rates showed a marked decline,

with the management class witnessing a substantial drop from 47.63% in 2018 to 40.06% in 2023, and the whole province experiencing a similar, though less steep, reduction from 49.35% to 46.57%. This data suggests a clear institutional and potentially societal shift towards undergraduate education in management, with students and educational systems prioritizing four-year degree programs over junior college qualifications during this six-year period. This confirms that graduates of four-year programs exhibit higher quality in various aspects, including teamwork, discipline, and practical skills, attributed to longer internship experiences [35].

### 3.3. Employment Rates

Table 3 presents a comprehensive overview of the proportion of students in different educational levels within the management class and the whole province from 2018 to 2023, revealing nuanced patterns of educational participation. The proportions remain remarkably stable throughout the period, consistently hovering between 90% and 97% across postgraduate, undergraduate, and junior college levels for the management class and the whole province. The management class demonstrates slightly more variability than the whole province, with minor fluctuations in student proportions.

Postgraduate proportions for the management class ranged from 92.24% to 95.08%, while the whole province varied between 90.19% and 93.52%. Undergraduate proportions showed similar stability, with the management class ranging from 93.60% to 95.74% and the whole province from 93.44% to 94.99%. Junior college student proportions exhibited the most interesting trend, with the management class experiencing a notable peak of 96.18% in 2023 and the whole province reaching 96.12% in the same year, suggesting a potential late-period convergence in educational participation rates.

The aggregate proportions further underscore this consistency, with the management class totals ranging from 94.61% to 95.80% and the whole province totals from 94.08% to 95.11%. These figures suggest a remarkably stable educational landscape with minimal structural changes in student distribution across different educational levels during this six-year period, indicating a consistent approach to educational participation in the region.

**Table 3** First-Time Employment Rates of Graduates (2018–2023)

Year	Postgraduate		Undergraduate		Junior College		Total	
	Management	Province	Management	Province	Management	Province	Management	Province
2018	95.08%	90.54%	94.84%	93.52%	96.59%	96.06%	95.68%	94.61%
2019	92.24%	90.19%	95.05%	94.08%	96.68%	95.91%	95.74%	94.08%
2020	92.99%	91.51%	95.74%	94.80%	96.05%	95.75%	95.80%	95.11%
2021	94.19%	92.88%	95.06%	94.99%	95.31%	95.40%	95.15%	95.10%
2022	94.63%	93.52%	94.15%	93.84%	94.90%	94.56%	94.89%	94.18%
2023	92.81%	91.26%	93.60%	93.44%	96.18%	96.12%	94.61%	94.58%

### 3.4. Employment Locations

Table 4 provides a comprehensive overview of graduate distribution across Guangdong Province in 2018 and 2019, revealing a nuanced landscape of educational and employment trends. The Pearl River Delta emerges as the unequivocal epicenter of graduate production, dramatically outpacing other regions with a total graduate population that grew from 50,995 in 2018 to 55,960 in 2019 – a remarkable 9.73% increase. Within this region, Guangzhou and Shenzhen stand as the primary educational powerhouses, showcasing significant growth across all educational levels: postgraduate, undergraduate, and junior college. Guangzhou, in particular, demonstrated consistent expansion, with undergraduate students increasing from 21,314 to 23,263 and junior college students rising from 22,150 to 23,687.

In stark contrast, other regions exhibited more modest trajectories. East Guangdong experienced an 11.97% graduate population increase, while West Guangdong saw a more measured 5.51% growth. North Guangdong actually experienced a slight decline of 5.84% in total graduates. The employment proportions remained remarkably stable, with the management class maintaining consistent representation across regions, ranging from 1.83% in North Guangdong to 83.05% in the Pearl River Delta.

The data tells a story of educational concentration, with the Pearl River Delta not just leading but dominating the graduate landscape as seen in Table 5. Cities like Guangzhou and Shenzhen act as educational magnets, attracting and producing most of the province's graduates. The consistent growth across educational levels – particularly in undergraduate and junior college categories – suggests a robust and expanding educational ecosystem increasingly centered in the region's most economically developed cities. This pattern reflects broader economic and demographic trends, highlighting the Pearl River Delta's role as an educational and economic powerhouse within Guangdong Province and confirming that universities play a crucial role in economic development through various mechanisms. They contribute to knowledge creation and human capital formation through research and teaching [29][21].

**Table 4** Regional Employment Distribution of Graduates

Region	Key Cities	Total Graduates			Employment Proportion (%)	
		2018	2019	Change	Management Class	Whole Province
Pearl River Delta	Guangzhou, Shenzhen	50,995	55,960	+9.73%	83.05%	79.96%
East Guangdong	Shantou, Jieyang	4,724	5,290	+11.97%	5.78%	6.38%
West Guangdong	Zhanjiang, Maoming	2,651	2,797	+5.51%	3.89%	4.91%
North Guangdong	Shaoguan, Qingyuan	1,114	1,049	-5.84%	1.83%	1.87%
Outside Province	N/A	951	949	-0.21%	5.44%	6.86%
Total		60,435	66,045	+9.28%	100%	100%

**Table 5** Educational Level Breakdown for Pearl River Delta (Largest Region)

City	Postgraduate		Undergraduate		Junior College	
	2018	2019	2018	2019	2018	2019
Guangzhou	1,974	1,986	21,314	23,263	22,150	23,687
Shenzhen	662	769	8,944	10,884	8,043	9,813
Foshan	139	165	5,598	5,644	6,264	6,142
Dongguan	120	107	4,887	5,389	6,222	6,747

### 3.5. Grassroots Employment

Graduates often experience job mismatches and reverse culture shock when returning to their home countries (Sisavath, 2021). To succeed, students must be proactive in seeking information and guidance (Hahs-Vaughn et al., 2015). Employability skills, such as communication and learning abilities, are crucial for securing jobs, alongside foreign language proficiency (Sisavath, 2021).

Table 6 unveils a complex and nuanced landscape of grassroots employment rates across different educational levels in 2018 and 2019, revealing distinct trends among economic and management classes. Postgraduate employment presents the most challenging scenario, with economic class rates plummeting from 54.59% to 49.67% and whole province rates declining from 48.19% to 43.81%, signaling significant difficulties for highly educated graduates in securing employment. In contrast, undergraduate employment demonstrated more resilience and moderate growth, with economic class rates marginally increasing from 45.46% to 46.16%, management class rates rising from 76.19% to 77.45%, and whole province rates expanding from 78.70% to 80.44%, suggesting a more stable employment environment for undergraduate degree holders.

Junior college graduates experienced a modest uptick, with whole province employment rates climbing from 72.28% to 74.42%, indicating incremental improvements in job opportunities. The management class consistently outperformed overall employment metrics, with rates increasing from 89.45% to 90.91%, while the whole province rates grew from 85.77% to 86.46%. These figures paint a sophisticated picture of an employment ecosystem characterized by segmented opportunities, where educational attainment and institutional affiliation significantly influence employment prospects.

The data underscores a critical narrative of educational and professional stratification, highlighting the varying challenges and opportunities faced by graduates across different educational levels and institutional contexts.

**Table 6** Grassroots Employment Rates (2018–2023)

Educational Level	Economic Class		Management Class		Whole Province	
	2018	2019	2018	2019	2018	2019
Postgraduate	54.59%	49.67%			48.19%	43.81%
Undergraduate	45.46%	46.16%	76.19%	77.45%	78.70%	80.44%
Junior College					72.28%	74.42%
Overall Rate			89.45%	90.91%	85.77%	86.46%

### 3.6. Graduate Studies and International Opportunities

Table 6 presents a comprehensive overview of graduate studies and international opportunities for various educational levels across the management class and whole province in 2018 and 2019, revealing nuanced patterns of academic advancement and international mobility. The data reveals a complex educational ecosystem where opportunities for further studies and international experiences vary significantly across different educational levels and institutional contexts, with undergraduate students showing the most promising trends and junior college students facing the most limited prospects.

Specifically, for postgraduate students, the data shows intriguing trends in further education and international opportunities. Within the management class, the proportion of students pursuing higher education increased significantly from 0.84% in 2018 to 1.50% in 2019, while international opportunities marginally decreased from 0.41% to 0.39%. The whole province exhibited similar patterns, with higher education rates rising from 3.02% to 3.44% and international opportunities growing from 1.00% to 1.15%, suggesting a modest but consistent expansion of academic and global mobility.

Undergraduate students demonstrated more stable and slightly growing patterns. The management class showed a minor increase in pursuing higher education from 2.04% in 2018 to 2.19% in 2019, and international opportunities expanded from 2.88% to 3.09%. The whole province mirrored this trend, with higher education rates increasing from 5.16% to 5.38% and international opportunities growing from 2.44% to 2.79%, indicating a gradual but steady enhancement of academic and global prospects.

**Table 7** Graduate Studies and International Opportunities

Academic Level	Category	2018 (Go to Higher Grade)	2018 (Go Abroad)	2019 (Go to Higher Grade)	2019 (Go Abroad)
Postgraduate	Management Class	0.84	0.41	1.50	0.39
	Whole Province	3.02	1.00	3.44	1.15
Undergraduate	Management Class	2.04	2.88	2.19	3.09
	Whole Province	5.16	2.44	5.38	2.79
Junior College	Management Class	1.84	0.08	1.80	0.15
	Whole Province	2.13	0.08	1.96	0.15

Junior college students presented the most stable and limited opportunities. The management class maintained nearly consistent higher education rates (1.84% in 2018 to 1.80% in 2019) with a minimal increase in international opportunities from 0.08% to 0.15%. The whole province followed a similar pattern, with higher education rates slightly declining from 2.13% to 1.96% and international opportunities remaining at 0.15%, suggesting constrained academic and global mobility for this educational segment. This approach has become increasingly important in recent years, reflecting a shift towards opportunity-centric perspectives in IE research. This confirms that the opportunities approach

to IE integrates ideas from international business and entrepreneurship theories, emphasizing the central role of international opportunities in explaining entrepreneurial internationalization (Schembri & Dimitratos, 2021).

## 4. Challenges in Employment

### 4.1. Underemployment

Graduate unemployment trends show mixed patterns across different contexts. In South Africa, contrary to popular belief, graduate unemployment rates are relatively low and have not shown a significant upward trend [6]. However, in Ethiopia, while overall unemployment has decreased, the proportion of unemployed graduates has increased, particularly among females [30]. South African firms report skills shortages primarily at middle to senior management levels, with graduates often lacking the necessary skills for entry-level positions [27]. Despite increasing demand for skilled workers, unemployment has risen among young and better-educated individuals in South Africa [27]. To address these issues, recommendations include improving education quality, aligning higher education with market demands, encouraging students to pursue fields with better employment prospects, and investing in soft skills development [27][30].

Table 8 presents a comprehensive overview of unemployment statistics for graduates across three academic levels - postgraduate, undergraduate, and junior college students - from 2018 to 2023. The data reveals several interesting trends over these six years. The total number of unemployed graduates has gradually increased from 6,370 in 2018 to 9,391 in 2023, representing a significant rise of approximately 47.4% over the six years.

Undergraduate students consistently represent the largest group of unemployed graduates, with their numbers rising from 3,407 in 2018 to 5,699 in 2023. This category shows the most substantial growth, increasing by about 67% during this period. Junior college students form the second-largest group, with their unemployment numbers fluctuating between 2,749 and 3,540 annually. Postgraduate students have the smallest representation, with their numbers remaining relatively stable, ranging from 205 to 341 unemployed graduates per year.

The data shows some notable variations year by year. There's a noticeable dip in total unemployment in 2020, likely reflecting the economic impacts of the global pandemic, with numbers dropping to 6,234 before rebounding in subsequent years. The years 2021 and 2022 saw significant increases in unemployment, particularly among undergraduate students, before a continued rise in 2023. By the end of the period, the total number of unemployed graduates reached 9,391, with undergraduates accounting for the majority of this figure.

The table provides a clear snapshot of graduate unemployment trends, highlighting the challenges faced by different academic levels in the job market during these six years. It underscores the need for targeted employment strategies, particularly for undergraduate and junior college graduates.

**Table 8** Unemployment Statistics of Graduates (2018–2023)

Year	Postgraduate	Undergraduate	Junior College
2018	205	3,407	2,758
2019	341	3,588	2,975
2020	284	3,201	2,749
2021	254	3,982	3,399
2022	223	4,834	3,540
2023	323	5,699	3,369
Subtotal	1,630	24,711	18,790

### 4.2. Educational Structure Imbalance

The impact of education on economic development can be severely impaired by "educational imbalance" in tertiary education, while economic inequality and political repression primarily affect the social returns of lower educational levels [14]. To address these disparities, strategies such as infrastructure investment, hiring quality teachers, and



providing diverse courses have been proposed, with large language models showing promise in predicting educational resource growth in underdeveloped areas [9].

Table 9 highlights the proportions of graduates at different academic levels—graduate students, undergraduate students, and junior college students—in economics and management in Guangdong Province from 2018 to 2023, emphasizing trends relevant to the discussion of educational structure imbalance. Graduate students consistently made up a small proportion of the total, remaining relatively stable at around 3%, with a slight decline from 3.11% in 2018 to 2.66% in 2022, followed by a minor increase to 2.88% in 2023. In contrast, the proportion of undergraduate students showed a steady increase, rising from 49.26% in 2018 to 57.06% in 2023, indicating a growing focus on undergraduate education. Meanwhile, the proportion of junior college graduates steadily declined from 47.63% in 2018 to 40.06% in 2023, suggesting a shift away from this level of education. These trends, compiled from the *2018–2023 College Graduates Employment Quality Report*, reveal an educational structure imbalance, with an increasing emphasis on undergraduate education and limited growth in graduate-level education, which may impact workforce diversity and alignment with economic demands in Guangdong Province.

**Table 9** Proportion of Educational Levels in the Total Number of Economics and Management Graduates in Guangdong Province (2018–2023)

Academic Level	2018 (%)	2019 (%)	2020(%)	2021 (%)	2022 (%)	2023 (%)
Graduate Students	3.11	3.00	2.80	2.82	2.66	2.88
Undergraduate Students	49.26	49.41	51.95	51.98	52.95	57.06
Junior College Students	47.63	47.59	45.15	46.20	45.39	40.06

### 4.3. Regional Disparities

The data highlights significant regional disparities in the employment distribution of economics and management graduates in Guangdong Province from 2018 to 2019. The Pearl River Delta dominated as the primary employment hub, with an overwhelming majority of graduates working there, increasing from 80.56% in 2018 to 82.15% in 2019, reflecting its strong economic appeal. In contrast, employment in Eastern Guangdong remained low and stable, accounting for 5.78% in 2018 and slightly declining to 5.67% in 2019. Similarly, Western Guangdong saw a slight drop in its share of graduate employment, from 3.89% in 2018 to 3.57% in 2019, while Northern Guangdong had the smallest proportion, decreasing from 1.83% to 1.62% over the same period. Employment opportunities outside Guangdong also remained limited, with a minor decrease from 5.44% in 2018 to 5.36% in 2019, indicating that most graduates preferred to work within the province. Similarly, out-of-province workers in British Columbia had lower workers' compensation claim rates compared to within-province workers (Macpherson et al., 2022). In Canada, 84.42% of private equity investments were intra-provincial (Cumming & Johan, 2006). However, income differences can influence interprovincial migration, as seen with Canadian physicians who were more likely to move to provinces with higher after-tax income and better working conditions [5]. In Mozambique, non-physician health professionals valued basic government housing, formal education opportunities, and equipment availability when considering rural postings [17]. These findings suggest that while there is a general preference for working within one's province, factors such as income, working conditions, and targeted incentives can influence professionals' willingness to work in different regions.

**Table 10** Regional Employment Distribution of Economics and Management Graduates (2018–2019)

Region	2018 (%)	2019 (%)
Pearl River Delta	80.56	82.15
Eastern Guangdong	5.78	5.67
Western Guangdong	3.89	3.57
Northern Guangdong	1.83	1.62
Outside Guangdong	5.44	5.36

#### 4.4. Limited Graduate Studies and International Mobility

The challenges in fostering global competitiveness among graduates are multifaceted, requiring a comprehensive approach to education. Universities need to develop students' generic skills, including critical thinking, technical expertise, and global awareness, to meet the demands of the dynamic workplace [8][26]. This involves shifting from traditional teaching methods to cooperative learning models and integrating technology into education [26]. Human capital development is crucial, emphasizing not only technical, interpersonal, and conceptual skills but also competitive attitudes [19]. Institutions must pursue a systemic approach to campus internationalization, fostering students' ability to work in diverse cultural settings and communicate across linguistic boundaries [8]. In South Africa, enhanced efforts from stakeholders and appropriate tools are needed to sustain university students' competence in the 21st century, aiming to produce employable graduates for both local and international labor markets [24].

Table 11 highlights the low participation of economics and management graduates in advanced studies and international exposure, which hinders the development of globally competitive professionals and impacts both individual growth and the province's economic modernization. Among graduate students, the proportion pursuing further studies increased from 0.84% in 2018 to 1.50% in 2019, but international exposure remained minimal, decreasing slightly from 0.41% to 0.39%. Undergraduate students showed the highest engagement, with those pursuing graduate studies rising modestly from 2.04% in 2018 to 2.19% in 2019, while those studying abroad grew from 2.88% to 3.09%. In contrast, junior college students exhibited limited participation, with their engagement in advanced studies dropping slightly from 1.84% in 2018 to 1.80% in 2019, and their international exposure remaining negligible, increasing only from 0.08% to 0.15%. These figures underscore the challenges in fostering global competitiveness among graduates, highlighting the need for targeted policies to encourage advanced education and international engagement as part of Guangdong Province's economic modernization strategy.

**Table 11** Graduates Studies and International Mobility

Academic Level	2018: Graduate Studies (%)	2018: Studying Abroad (%)	2019: Graduate Studies (%)	2019: Studying Abroad (%)
Graduate Students	0.84	0.41	1.50	0.39
Undergraduate Students	2.04	2.88	2.19	3.09
Junior College Students	1.84	0.08	1.80	0.15

#### Findings

The findings of this study reveal several key insights into the employment trends and challenges faced by economics and management graduates in Guangdong Province between 2018 and 2023:

- A disproportionate number of graduates are undergraduates, with the proportion steadily approaching 60% by 2019. Graduate education remains underrepresented, accounting for less than 3% of the total graduates over the years. This imbalance suggests an oversupply of undergraduates, while advanced education remains limited, affecting the overall quality of talent entering the labor market.
- Employment for economics and management graduates is heavily concentrated in the Pearl River Delta region, with over 80% of graduates securing jobs there. Conversely, eastern and northwestern Guangdong regions have a significantly lower employment rate, particularly for graduate and undergraduate students, highlighting regional inequalities in graduate job distribution. This concentration exacerbates economic disparities across the province.
- Rates of further education and international exposure among graduates are relatively low. Graduate students, in particular, show limited engagement with graduate studies and studying abroad, reflecting a gap in global competitiveness. The lack of international mobility and advanced studies indicates a missed opportunity for graduates to enhance their global skill sets and career prospects.
- Despite relatively high initial employment rates, there is a significant mismatch between the qualifications of graduates and the jobs they secure. Many graduates, particularly those with advanced degrees, struggle to find positions that align with their qualifications. This underemployment reflects a disconnect between the education system's output and labor market demands.
- A notable proportion of economics and management graduates work in fields unrelated to their major, further underscoring the misalignment between education and job market requirements. This lack of professional

relevance affects the overall employment satisfaction of graduates and highlights the need for better alignment between curriculum design and labor market needs.

A notable number of graduates remain unemployed each year, with the unemployment rate showing an upward trend over the six years studied. This persistent issue indicates structural problems within the labor market, such as the saturation of specific fields and inadequate job creation to absorb the increasing number of graduates.

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## 5. Conclusion

This study highlights critical challenges in the employment outcomes of economics and management graduates in Guangdong Province between 2018 and 2023, providing a foundation for systemic improvements. Key findings reveal significant imbalances in the educational structure, with undergraduates dominating the graduate pool, while graduate education remains underrepresented. This disproportionate distribution contributes to skill mismatches and limits the effectiveness of talent development.

Regional disparities further exacerbate employment challenges, with the Pearl River Delta attracting the vast majority of graduates, leaving eastern and northwestern Guangdong underserved. This imbalance hinders equitable economic development across the province. Additionally, the low rates of graduate studies and international mobility restrict graduates' global competitiveness and professional growth.

The study also identifies underemployment as a persistent issue, particularly among advanced-degree holders, highlighting a misalignment between graduate qualifications and labor market demands. Many graduates work in fields unrelated to their academic backgrounds, reflecting a lack of professional relevance and contributing to career dissatisfaction. Furthermore, unemployment rates remain concerning, with thousands of graduates unable to secure employment annually, signaling systemic inefficiencies in job market integration.

Addressing these challenges requires collaborative efforts from the government, universities, and graduates. Policies should focus on balancing educational structures, promoting regional employment equity, and fostering pathways for graduate studies and international exposure. Universities must align curricula with market needs and enhance career guidance services, while graduates should actively pursue diverse skills and adaptable career strategies. By implementing these reforms, Guangdong Province can ensure the sustainable development of its labor market and improve employment outcomes for economics and management graduates.

### *Recommendations*

- The government should take proactive measures, to address employment challenges for economics and management graduates. Expanding employment opportunities by supporting emerging industries and promoting regional development is crucial for job creation. Additionally, strengthening public employment services and reducing systemic barriers to job mobility can improve access to opportunities. Enhancing legal frameworks to protect graduates' rights and address discriminatory hiring practices is essential to fostering a fair and inclusive job market.
- Universities must implement reforms to better prepare graduates for the evolving job market. Revising curricula to align educational programs with market demands and emerging technologies is essential. Expanding graduate education and fostering interdisciplinary research can enhance academic and professional development. Furthermore, universities should provide comprehensive career services, including career guidance and early career planning initiatives, to support students' transition to the workforce.
- Graduates must also take active steps to enhance their employability. Developing professional skills through internships and practical training can boost innovation and job readiness. Exploring opportunities in non-metropolitan regions and grassroots roles can broaden career prospects. Finally, embracing lifelong learning through continuous education will enable graduates to remain competitive in an ever-changing job market.

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## Compliance with ethical standards

### *Disclosure of conflict of interest*

No conflict of interest to be disclosed.

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