

SOME FEATURES OF THE HIGH-QUALITY LABOR MARKET IN BA RIA - VUNG TAU PROVINCE

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Abstract: Highly skilled labor is crucial for economic development. Understanding the current state of the labor market is essential as it reflects changes in human resources that contribute to the GDP/GRDP. Ba Ria-Vung Tau, situated in the Key Economic Quadrangle of the Southeast region, serves as the national marine economic hub and is among the top 5 marine economic development areas in the country. The province's labor market is dynamic, particularly in the demand for skilled workers. The current state of the high-quality labor market, characterized by lucrative job opportunities and high incomes, is evidenced in secondary data from various sources such as the General Statistics Office, the Statistics Department of Ba Ria-Vung Tau province, as well as empirical and quantitative research involving over 200 enterprises in Ba Ria-Vung Tau and neighboring provinces/cities (with a total of 1961 responses, including 531 from enterprises within Ba Ria-Vung Tau) and insights gathered from group discussions with business leaders. The analysis reveals that the province's labor market is grappling with a shortage of skilled human resources in terms of both quantity and quality. Consequently, several recommendations have been put forth to address this shortage and cater to the demands of employers, thereby facilitating increased investment in Ba Ria-Vung Tau.

Keywords: Labor market, high-quality human resources, enterprise, Ba Ria-Vung Tau province

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1. Introduction

Studies have shown that the labor market is one of the main components of an economy, along with capital, goods, and services markets (Zamfir & Vlăsceanu, 1993; Serena, 2016; Yoo, 2023). From an economic perspective, the labor market is one of the components of the producers (Zamfir & Vlăsceanu, 1993; Serena, 2016). The labor force has been and is the living factor that brings meaning to economic

life and is the main component of production factors; thanks to its direct or indirect intervention, all economic activities can be carried out (Serena, 2016). As the economy develops, the labor force develops, contrary (Yoo, 2023). Skilled and educated workers are considered a group of high-quality human resources, and labor contributes to economic and social development that helps modernize the labor structure. In Vietnam, the government has also

outlined directions for labor market development, such as Resolution No.06/NQ-CP on flexible, modern, efficient, sustainable, and integrated labor development to recover the economy and society quickly, affirming: “Alongside commodity, service, financial, monetary, scientific-technological markets, and real estate markets, the labor market is identified as a vital market of the economy” (Government, 2023).

After the COVID-19 pandemic, the labor market has had a strong recovery, especially in high-income countries such as Europe and the United States, where many sectors face labor shortages. Businesses argue that the skill gap in the local labor market is seen as a more significant barrier to transformation than their capital investment shortages in most industries (WEF, 2023). Skill mismatch poses a challenge to the economy when insufficient skilled workers are prepared to meet the needs of strategic sectors (World Bank, 2022).

With natural advantages such as deep-water ports, natural gas and oil resources, stable electricity supply, and well-invested infrastructure, the dynamic development of the entire Southeast region serves as crucial conditions for Ba Ria - Vung Tau province (BRVT) to attract investment and high-tech projects, utilizing high-quality human resources. The 7th Party Congress of BRVT province for the 2020-2025 term affirmed the goal of “*continuing to develop BRVT into a strong province in industry, seaports, tourism, and high-tech agriculture. Striving by 2025 to be among the top provinces in the country in terms of per capita GRDP*” and “*Persistently attracting selectively chosen investments, large-scale projects with modern technology, high added value, labor-light, and environmentally friendly.*” In 2022, the province’s industrial sectors accounted for 68.68% of the GRDP, while services accounted for 15.98% of the province’s GRDP, utilizing a significant portion of the labor force (BRVT Provincial Statistics Office, 2023). Advanced and modern manufacturing and service industries are increasingly developing, leading to a growing demand for highly skilled labor.

With a population of nearly 1.18 million people, the labor force of BRVT accounted for 53.96% of the population in 2022 (BRVT Provincial Statistics Office, 2023). BRVT has a trained labor force rate

of 28.0% in 2022, higher than the national average (26.4%). However, other provinces in the Southeast region, except for Ho Chi Minh City (35.6%) (General Statistics Office, 2023), still fail to meet the demand for the labor force on the provincial level. The rapid growth has led to a shortage of skilled labor, resulting in a significant imbalance across the labor market. Businesses in the province still face difficulties in recruiting skilled labor, with only 24% of surveyed companies in 2021 finding it easy to recruit technical and managerial staff in the province (VCCI, 2022). This partly reflects the province’s high-quality labor force not meeting businesses’ recruitment needs in terms of quantity and quality. Compared to the national average, BRVT ranks 57th and 46th out of 63 provinces/cities in these two indicators, far behind some Southeastern provinces such as Binh Duong, Dong Nai, Ho Chi Minh City, and industrial provinces in the North.

Therefore, researching the current situation of labor supply and demand, as well as the level of labor market responsiveness in the business sector on the labor market of BRVT province, is essential. This research aims to clarify the basis for proposing recommendations to improve the shortage of high-quality labor force to meet the needs of employers, attract investment waves into the province, and contribute to achieving the goals set forth at the 7th Party Congress of BRVT province.

2. Literature review

The labor market involves the interaction between individuals seeking employment for income and employers seeking labor with the most suitable skills for the production process (Dixon & O’Mahony, 2020), or put, it is a market for buying and selling labor services (Fields, 2011). The labor market refers to the supply and demand of labor, where workers provide labor supply, and employers provide labor demand. In the labor market, businesses act as buyers, paying wages and determining working conditions, while individuals act as sellers, providing employers with the knowledge, skills, and experience they possess (Serena, 2016). Labor demand refers to the collection of individuals currently employed or potentially employable in the future; it represents the amount of labor that the economy or a company seeks to hire at a given time (Ministry of Labor -

Invalids and Social Affairs, 2014).

Although income depends on the quality of employment, occupational structure, and wages, it also somewhat reflects the quality of labor (Stigler, 1962). On one hand, considering labor as a unique commodity, naturally, the higher the quality of labor, the greater the price that must be paid to utilize it; in other words, the income of high-quality labor also increases (Rosenzweig, 1988). On the other hand, according to the rules of supply and demand in the labor market, when the relative number of high-quality labor decreases, similar to when demand for this group increases, it all leads to an increase in their relative wages (Borjas, 2024). The demand for labor tends to raise the wage floor in the market - employers need to offer competitive wages to attract skilled workers to work for them (Ministry of Labor, Invalids and Social Affairs, 2014). Thus, labor demand is also determined through employment criteria.

One of the characteristics of the labor market is segmentation (Pigou, 1945; Leontaridi, 1998). In its broadest sense, the market comprises a range of segments or two “levels.” The first level, the High-quality Labor Market - or what Reich refers to as the “primary” market - includes educated and trained workers with higher incomes and more stable employment opportunities with chances for career development (Reich et al., 1973). Therefore, the High-quality Labor Market is understood as the place where “good” jobs are located, offering high-paying employment (Serena, 2016; OECD, 2022) with highly skilled workers (Serena, 2016; OECD, 2022; Anh, 2022). This forms the basis for analyzing the High-quality Labor Market in Ba Ria-Vung Tau province.

The labor market is undergoing a profound transformation driven by digital technology and the development of digital platforms. In the age of automation, having qualifications and specialized knowledge in specific fields is no longer sufficient. Labor must demonstrate the necessary skills and knowledge to perform their tasks efficiently. This means that workers will need to invest in education and training continuously, and employers will need to create opportunities for skills development (Yoo, 2023).

Skills are valuable assets for individuals, businesses,

and society. The importance of skills is even more evident in a dynamic and globalized world, but what is crucial is that skills must align with the labor market and be recognized by employers (WEF, 2014). Higher unemployment rates among those with higher education levels also exist in some developing countries. In North Africa, such as Algeria and Egypt, the unemployment rate among university graduates tends to be higher than that of those with primary or secondary education. This skewed trend indicates issues with labor market structure, lower returns on investment in skills, and inefficient job loss. Rapid technological changes and slow adaptation in the education and training systems can lead to a shortage of practical skills (WEF, 2014).

Global employers often report skill gaps that include a lack of general or soft skills, specifically teamwork, communication skills, language proficiency, readiness to learn, problem-solving, and leadership skills (WEF, 2014; ManpowerGroup, 2018).

The demand for skilled labor, both technical and soft skills, is increasing in the international labor market. Meanwhile, a shortage of skilled labor leads to an increasing skill gap. Business leaders worldwide continue to report difficulties in recruiting workers who meet the skill requirements that can fill the gaps in their businesses and increase over time (ManpowerGroup, 2022). This indicates that the demand for skilled labor is growing across all industries and sectors, from manufacturing to mining and commerce to transportation.

However, job-specific skills that are learned on the job are often difficult to acquire elsewhere; providing education and training based on the skills needed in the labor market and/or failing to collaborate with employers may result in higher youth unemployment rates and mismatches in professional qualifications (WEF, 2014). Therefore, building fundamental skills from an early age through expanding and enhancing the quality of education is essential. The President of the World Bank Group stated, *“When done well, education promises young people better jobs, higher incomes, good health, and a life without poverty. For communities, education drives innovation, strengthens institutions, and promotes social cohesion. However, these benefits hinge on learning, and going to school and*

not learning is a wasted opportunity. Moreover, it is a great injustice: the children society fails most are the ones who need the best education to succeed in life” (World Bank, 2018).

In recent years, Vietnam has implemented numerous policies to enhance the quality of its labor force. Among these, the Vietnam Human Resources Development Strategy for 2011-2020 is considered the most important legal document. It is the basis for formulating, approving, and implementing human resource development plans, programs, and projects in various sectors, specialties, organizations, and localities. Continuing the perspectives of the 11th, 12th, and 13th Party Congresses, the 13th Congress identifies the development of human resources, particularly high-quality human resources, as a strategic breakthrough to gradually overcome the bottlenecks in socio-economic development. It is considered a decisive factor in promoting the development and application of science and technology to ensure sustainable economic growth and development. To develop high-quality human resources that contribute to enhancing labor productivity and increasing national competitiveness and to be prepared to accept new waves of FDI inflows shifting to Vietnam, the government has issued initiatives and programs such as the Vocational Training Program for Rural Laborers by 2020 (Prime Minister, 2009); the program “Training, retraining, and enhancing the skills of human resources to meet the requirements of the Fourth Industrial Revolution” (Prime Minister, 2020), etc.

Articles and research on the High-Quality Labor Market in Vietnam indicate that after over 35 years of national renovation, Vietnam’s labor market has developed in scale and quality, gradually becoming modern, sustainable, and internationally integrated. The institutional system and policies related to the labor market have been improved; labor supply and demand relationships have increased, and the quality of employment has been steadily improving. However, Vietnam’s labor market development is not yet strong enough to fully mobilize all resources for economic and social development investment, failing to create many sustainable jobs, and the labor force quality is not yet high enough (Government, 2023). High-quality labor force integration with the science

and technology market is still not strong (Dung, 2022). Vietnam’s labor market remains surplus, with low education and skills and uneven development. With a labor force of over 51 million people (in 2021), only 26.2% have been trained and possess degrees or certificates, while over 70% have not received training or only undergone short-term training, posing a significant challenge in establishing and developing a modern labor force with high-quality human resources to attract FDI (Anh, 2022). Although the education and skills of the labor market have improved over time, they still lag behind the labor market requirements compared to other countries, which is seen as a bottleneck for developing a high-quality labor market (Thuy, 2022). Vietnam’s labor market faces many challenges regarding the quality of human resources, such as the proportion of labor with high technical expertise accounting for only over 11% of the total labor force, remaining nearly unchanged from 2019-2022, and the proportion of labor proficient in English in the workplace accounting for only 5% of the labor market, showing no improvement during the 2016-2022 period (ManpowerGroup, 2016-2023).

3. Research methodology

Building upon previous research and analyses mentioned above, this article defines the high-quality labor market as the market catering to qualified and skilled workers who possess the necessary personality traits and professional competence

Several aspects reflecting labor quality, consistent with human capital theory (Schultz, 1961; Becker, 1964; Zula & Chermack, 2007; Marginson, 2019), are viewed from the perspective of employers/labor users as well as managers, such as years of schooling, educational level, expertise, skills, attitude, commitment, and problem-solving ability of the workforce.

The research methods used include:

- Synthetic method, analysis from available information;
- Collection method and analysis of secondary data: This article utilizes secondary documents from the General Statistics Office, BRVT Provincial Statistics Office, and VCCI in recent times and systematizes available statistical data related to employment, unemployment, educational levels,

and sectors. These pieces of information are used to compare and evaluate the extent to which the labor force meets enterprises' recruitment needs in terms of quantity and quality in the BRVT province.

- Quantitative research

Data was gathered by conducting direct surveys and online questionnaires at more than 200 businesses in Ba Ria - Vung Tau (BRVT) province, as well as in various other provinces and cities including Hanoi, Ho Chi Minh City, Tra Vinh, Dong Nai, Binh Duong, Can Tho, and Bac Lieu. The responses from paper surveys were carefully cleaned and entered into the Epidata software. A total of 2025 surveys/questionnaires were distributed, out of which 1993 responses were received, resulting in a response rate of 98.4%. After eliminating 32 invalid responses, a total of 1961 surveys from managers and departments within the surveyed businesses were available for analysis, accounting for approximately 96.8% of the total distributed. Among the respondents, there are currently 531 individuals working in businesses located in BRVT province, representing 27.1% of the sample. The purpose of conducting surveys in other localities is to examine any variations in

candidate requirements between BRVT province and other regions.

4. Results

The labor force demand increases both in quantity and quality.

Excluding the oil and gas industry, the GRDP growth (comparative price to the year 2010) of the province reached an average of 5.18% per year (from 2011 to 2015, it increased by an average of 5.45% per year, and between 2016 and 2020, it increased by an average of 6.16% per year). Alongside continuous positive economic growth over several years, the labor demand incessantly increases in both quantity and quality; Industries and professions structures are evolving towards modernity, high labor productivity. Employment in the industrial and service sectors tends to rise. In contrast, employment in agriculture tends to decline, accounting for only 19.2% in 2020, a decrease of 6.6 percentage points compared to 2015 and 15.1 percentage points compared to 2010 (BRVT Provincial People's Committee, 2023).

The average monthly income of laborers in enterprises is the highest in the Southeast region somewhat reflects the high quality of labor demand.

Table 1. Average monthly income of labor in operating enterprises with production and business results in the South East provinces

Unit: Thousand VND

	2015	2017	2018	2019	2020	2021
South East	7.666	9.218	9.744	10.260	10.362	11.004
Ba Ria – Vung Tau	9.476	10.401	10.780	11.513	11.988	12.128
Binh Duong	6.955	8.189	8.645	9.488	9.770	10.356
Binh Phuoc	5.549	6.903	7.013	7.401	7.843	8.841
Dong Nai	7.011	8.817	9.752	10.009	9.784	9.887
Ho Chi Minh City	8.175	9.854	10.330	10.820	10.906	11.769
Tay Ninh	5.877	7.130	7.639	8.119	8.634	9.211

Source: General Statistics Office (2022, 2023). Statistical Yearbook 2021, 2022

Table 1 shows that the average monthly income of laborers in enterprises in various provinces tends to increase, with BRVT having the highest income, surpassing even Ho Chi Minh City. By 2021, the average monthly income of laborers in enterprises in BRVT reached 12.128 million VND, while in Ho Chi Minh City, it was only 11.769 million VND, in

Binh Duong and Dong Nai, it was 10.356 million and 9.887 million VND, respectively. The higher average monthly income of laborers in enterprises in BRVT compared to other localities in the same region indicates that the quality of labor demand in the province is higher than the national average and continues to improve. However, according to Stigler

(1962), it is worth noting that the high average labor income can also depend on the industrial structure and job quality in BRVT.

The labor market has steadily recovered, trending towards a high-quality, highly skilled workforce. After the COVID-19 pandemic, the demand for highly technical skilled labor increased over time, while the demand for simple labor decreased. Due to the impact of the COVID-19 pandemic, the demand for labor recruitment by businesses sharply decreased from 26,919 individuals in 2019 to only 10,672 individuals in 2021, a decrease of 2.5 times over two

years. After one year, the demand for recruitment by enterprises reached 13,687 individuals, an increase of almost 1.3 times. Notably, the demand for unskilled labor has significantly decreased proportionately to the total labor needed (27.3%), almost halving compared to 2019 (48.7%). In the overall demand for trained labor, the largest percentage is represented by skilled technical workers (31%). Following them are workers with vocational training (15%), intermediate (11%), and those with university and over (13%). The smallest proportion is made up of labors with college degrees (5%) (Table 2).

Table 2. Human resource demands in 2022 divided by qualifications

No.	Qualifications	2019		2021		2022	
		Quantity (person)	Rate (%)	Quantity (person)	Rate (%)	Quantity (person)	Rate (%)
1	Untrained labors	13,104	48.7	2,775	26.0	3,741	27.3
2	vocational training	3,690	13.7	1,601	15.0	2,671	19.5
3	Skilled technical workers	6,498	24.1	3,308	31.0	3,652	26.7
4	Intermediate	1,253	4.7	1,174	11.0	1,547	11.3
5	College	850	3.1	427	4.0	657	4.8
6	University and above	1,524	5.7	1,387	13.0	1,419	10.4
	Total	26,919	100.0	10,672	100	13,687	100.0

Source: Employment Service Center (ESC) of BRVT province (2019). Forecast of labor demand in BRVT province in 2020;

ESC of BRVT province (2022). The report assesses the labor market situation in 2021 and forecasts labor demand in 2022 in BRVT province;

ESC of BRVT province (2023). Report on the labor market in 2022. Forecast of labor demand in 2023 in BRVT province.

After the COVID-19 pandemic, the demand for recruitment in 2022 showed an increasing trend across all industry groups in general. The industries with the most significant increase in demand for labor were mechanical engineering and automation (4.84%), electrical - mechatronics (3.17%), electrical – refrigeration - industrial electricity (5.02%), architecture and construction engineering (3.07%), transportation and warehousing - import-export (5.53%), consulting and customer services (4.93%), etc. (BRVT Employment Service Center, 2023). These are dynamic industries in BRVT that require a significant amount of labor. Some sectors are

growing faster than they can hire, resulting in a considerable gap in the labor force.

Survey results also indicate a relatively high proportion of enterprises recruiting labors having college/university degree. Throughout the previous year, businesses have been hiring individuals with a college or university background, with some differences observed in different areas. The proportion of survey participants indicating that businesses have hired college or university-educated individuals in the past year is quite high, surpassing 80%. The disparity in viewpoints between management personnel and employees within businesses is minimal across various regions.

In Ba Ria – Vung Tau province, 88.1% of respondents mentioned that their businesses had recruited individuals from this educational background in the

past year. Similarly, the level of agreement among management personnel in businesses in other provinces and cities stood at 81.7%. (table 3).

Table 3. Recruitment of labors with College/University degrees by location

		1 Ba Ria -Vung Tau		2 Others		Total	
		Quantity (person)	Rate (%)	Quantity (person)	Rate (%)	Quantity (person)	Rate (%)
Recruitment of labor with college or university degrees in recent years.	1 Yes	468	88.1	1.168	81.7	1,636	83.4
	2 No	63	11.9	262	18.3	325	16.6
Total		531	100.0	1.430	100.0	1,961	100,0

Source: Survey results from the consulting group (2022-2023)

In addition to the requirement for professional qualifications, employers demand that laborers possess soft skills, proficiency in applying information technology, and fluency in foreign languages.

The findings of the survey indicate that businesses, in general, prioritize all criteria when hiring college/university graduates, and this evaluation receives high ratings (compared to the average score of 3). However, there are variations based on location. In

other provinces and cities, enterprises demonstrate higher levels of appreciation for factors such as “Graduation classification,” “Training school,” “Communication skills,” and “Ideas about the job to be undertaken” compared to Ba Ria – Vung Tau. On the other hand, businesses in BRVT exhibit a greater interest in the “Foreign Language Proficiency” of graduates. These disparities hold statistical significance (Table 4).

Table 4. Priority levels in the criteria for recruiting college/university graduates categorized by locality

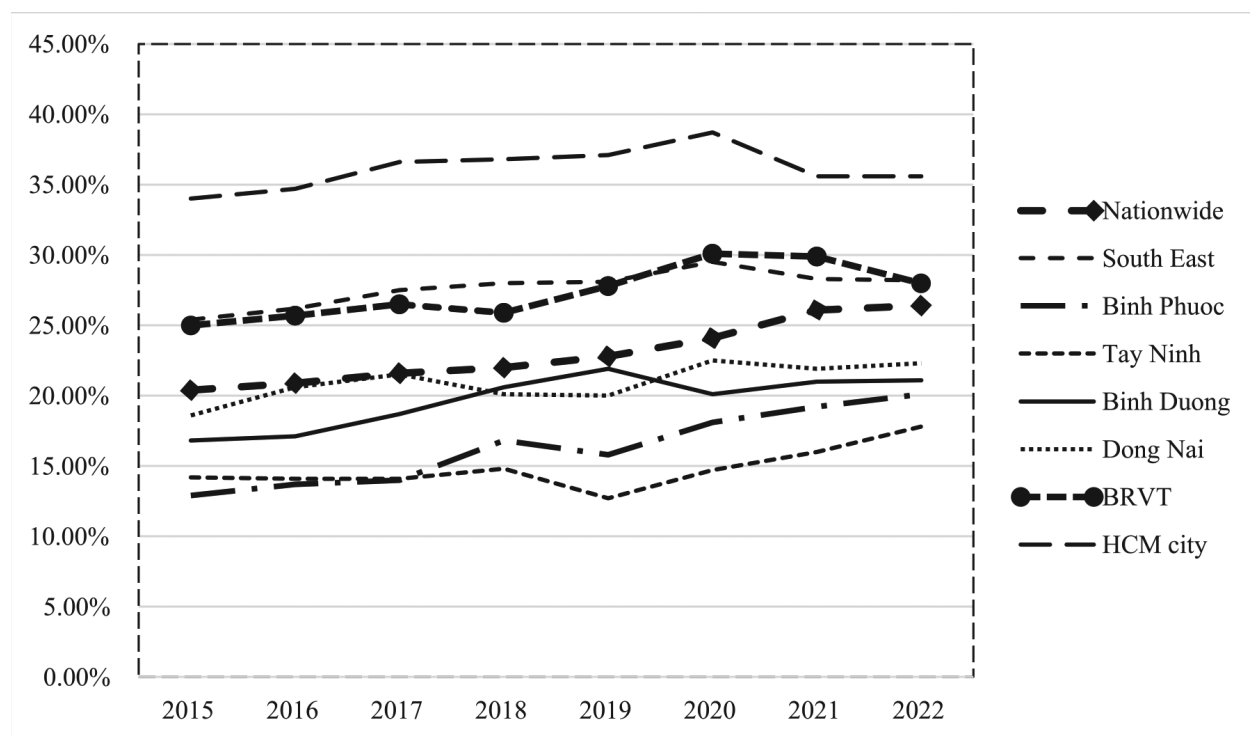
Recruitment criteria for recruiting graduates from colleges/universities, categorized by Business Area		Quantity (person)	Mean	SD	SE	P value (2-tailed)
Degree classification	1 BRVT	531	3.12	.855	.037	.000
	2 Others	1430	3.55	.870	.023	
Educational institution	1 BRVT	531	3.15	.972	.042	.000
	2 Others	1430	3.59	.843	.022	
Practical experience	1 BRVT	531	4.09	.675	.029	.122
	2 Others	1430	4.03	.892	.024	
Communication skills	1 BRVT	531	3.88	.742	.032	.000
	2 Others	1430	4.04	.730	.019	
Language proficiency	1 BRVT	531	3.96	.748	.032	.004
	2 Others	1430	3.85	.845	.022	
Computer skills	1 BRVT	531	3.81	.687	.030	.501
	2 Others	1430	3.78	.808	.021	
Ideas about the job they will undertake	1 BRVT	528	3.70	.764	.033	.000
	2 Others	1430	3.93	.745	.020	

Source: Survey results from the consulting group (2022-2023)

The quality of the labor force is improving, but it has not yet matched the economic development potential of the province. The proportion of trained labor with qualifications and certificates in the province has been increasing over the years; however, it slightly decreased in 2022 due to the impact of the

Covid-19 pandemic, reaching only 28.0% in 2022, lower than that of the Southeast region (28.2%) (due to including Ho Chi Minh City). Nevertheless, overall, it is higher than the national average (26.4%) and the average of provinces in the Southeast region, excluding Ho Chi Minh City (35.6%).

Figure 1. Proportion of labor aged 15 and above with training nationwide and in the Southeastern provinces, 2015-2022, %



Source: General Statistics Office (2020, 2023). Statistical Yearbook for the years 2019, 2022.

Thanks to the Training System, vocational education development is standardized, gradually modernized, socialized, and internationally integrated, which has become more socialized and internationally integrated, connecting more closely with the needs of the labor market to develop human resources in quantity. By 2020, BRVT had two universities and 47 vocational education institutions, including six colleges, six intermediate schools, seven vocational education centers, and 30 other establishments registered for vocational education activity accounting for 16% of the total vocational education institutions in the Southeast region. Among them were 11 public vocational education institutions and 36 private ones (BRVT Provincial People's Committee, 2023). However, the number is significantly lower than that of Binh Duong. Binh Duong currently boasts eight universities, seven

colleges, 16 intermediate schools, 46 vocational training centers, and 50 language and computer centers, with the capacity to train approximately 80,000 to 85,000 learners per year, providing a workforce for the local economic and social development (Phuong Chi, 2022).

However, the average years of schooling for the population aged 25 and older in BRVT are not high, and the province's ranking among localities nationwide is low, not commensurate with its economic development potential. This is a widely used measure to assess the quality of human resources in a country or locality; many cognitive skills, social emotions, technical skills for effective work, and innovation depend on education while still in school (World Bank, 2018). BRVT has consistently been among the top 10 provinces in terms of per capita GRDP for many years. In 2022, the province's per

capita GRDP reached 335.5 million VND per year, the highest in the country, nearly 1.7 times higher than the second-ranked province, Quang Ninh (198.8 million VND per year) (General Statistics

Office, 2023). However, the average years of schooling for the population aged 25 and older in the province only reached 9.3 years, ranking 21 out of 63 provinces and municipalities.

Table 5. Mean years of schooling (AYS) and rankings of Southeastern provinces within the country's localities, period 2016-2020.

	2016		2017		2018		2019		2020	
	AYS	Rank	AYS	Rank	AYS	Rank	AYS	Rank	AYS	Rank
Nationwide	8.5		8.6		8.7		9.0		9.1	
Binh Phuoc	7.8	34	7.5	41	7.3	44	7.8	42	7.9	41
Tay Ninh	6.7	49	6.9	46	7.0	48	7.4	46	7.3	47
Binh Duong	8.6	23	8.0	34	8.2	31	8.8	25	8.8	27
Dong Nai	8.7	22	8.7	22	8.6	26	9.2	22	9.2	22
Ba Ria – Vung Tau	8.8	21	8.8	21	8.9	20	9.5	17	9.3	21
Hochiminh City	10.1	4	10.1	4	10.2	4	10.8	3	10.5	4

Source: VASS (2021). Report on Vietnam's Human Development Index for the period 2016-2020.

The province's labor market is facing challenges regarding the shortage of high-quality human resources in terms of quantity and quality. This is manifested through:

(1) *Limited supply of high-quality labor, failing to meet the demands of the labor market. Businesses encounter difficulties in finding technically skilled labor in locality as evidenced by the criteria of the ease of recruiting skilled labor.* Table 6 provides a breakdown of the evaluation by FDI companies regarding the ease of recruiting specific labor groups in BRVT, as well as in various provinces and cities within the Southeast region and industrial provinces, in order to fulfill the alternative or expanded recruitment strategies of these enterprises. The labor groups that FDI enterprises find relatively more straightforward to recruit are ordinary workers with a satisfaction

rate of 73%, meaning nearly three-quarters of the surveyed enterprises agree. Businesses in BRVT also report similar results, albeit slightly lower at 67%. Next are technical staff (24%) and managers, supervisors (24%) which are lower than the national average and significantly lower compared to Binh Duong, Dong Nai, and Ho Chi Minh City with rates for each province/city at 45% and 40%; 29% and 32%; 43% and 31% respectively. The level of ease in recruiting labor for these two labor groups is at its lowest, partially indicating that the province's skilled labor force has not been able to fulfill the recruitment requirements of businesses in terms of both quantity and quality. Compared to the national average, BRVT ranks 57 and 46 out of 63 provinces/cities in these two indicators far behind Binh Duong, Dong Nai, Ho Chi Minh City, and Northern industrial provinces.

Table 6. Assessment of the ease of labor recruitment by job positions in 2021, %

Province/City	Percentage of enterprises assessing the recruitment of general labor in the province as easy (%)	Rank	Percentage of businesses assessing that recruiting technical staff in the province is easy (%)	Rank	Percentage of businesses assessing that recruiting managers and supervisors in the province is easy (%)	Rank
Ba Ria – Vung Tau	67	45	24	57	24	46
Bac Giang	75	28	37	30	21	56
Bac Ninh	64	53	31	41	25	45
Binh Duong	79	14	45	15	40	14
Dong Nai	67	47	29	50	32	25
Hochiminh City	70	40	43	19	31	30
Quang Ninh	53	62	29	48	27	40
Median	73		35		30	-
Nationwide	62		25		20	-

Source: VCCI, USAID (2022). *Provincial Competitiveness Index of Vietnam 2021*

(2) *The quality of skilled human resources has not yet met the development requirements of the labor market.*

Laborers with college or university degrees working in enterprises in BRVT have not received high levels of satisfaction from the managers of these enterprises.

It is crucial and unbiased to gather feedback from managers within the organization regarding the satisfaction levels of college/university laborers in order to assess their work performance.

It is evident that in all areas of work, individuals

with college/university education in BRVT exhibit notably lower satisfaction levels compared to those in other provinces/cities. This variance was deemed statistically significant (across all categories, P value = $0.000 < 0.05$), despite the fact that the assessment score exceeded the mean score of 3.

The professional competence efficiency and problem-solving skills of laborers with college/university-degree in BRVT are not high. This serves as a barrier to the province's development as well as to the development of individual workers and businesses.

Table 7. Satisfaction levels with the labor force holding college/university degrees by region

The aspect of work distributed according to the area of the Enterprise		Quantity	Mean	SD	SE	P value (2-tailed)
Professional expertise	1 BRVT	531	3.68	.885	.038	.000
	2 Others	1430	3.95	.611	.016	
Problem-solving skills	1 BRVT	531	3.69	.877	.038	.000
	2 Others	1430	3.91	.663	.018	
Attitude and work discipline	1 BRVT	531	3.72	.939	.041	.000
	2 Others	1430	3.98	.648	.017	
Commitment and loyalty to the company	1 BRVT	528	3.66	.824	.036	.000
	2 Others	1430	3.83	.742	.020	
Work efficiency	1 BRVT	528	3.68	.813	.035	.000
	2 Others	1430	3.93	.643	.017	
Overall evaluation of graduates from colleges/universities	1 BRVT	528	3.70	.772	.034	.000
	2 Others	1430	3.96	.593	.016	

Source: Survey Results by Consulting Group (2022 - 2023)

(3) *Graduates entering the workforce in BRVT are lacking of language proficiency and the ability to adapt to the work environment.* This is a barrier to not only the province's development but also the workers and businesses. Survey results indicate that all businesses believe graduates must acquire additional knowledge to meet job requirements. These criteria were assessed on a Likert scale of 4 levels with a Mean of 2.5 (note that other scales typically have five levels); the results show that these criteria are considered necessary ranging from above average to reasonably necessary

(approximately 3 points). Additionally, businesses in BRVT seem to have lower requirements than those in other provinces, and these differences are statistically significant. Particularly regarding language proficiency, while businesses in BRVT have higher requirements in recruitment compared to those outside BRVT. Nevertheless, the level of supplementary prerequisites and the proficiency in foreign languages required by businesses in BRVT for prospective candidates is merely on par with that of control enterprises in other provinces and cities.

Table 8. Additional knowledge/skills needed by graduates of Colleges/Universities categorized by region

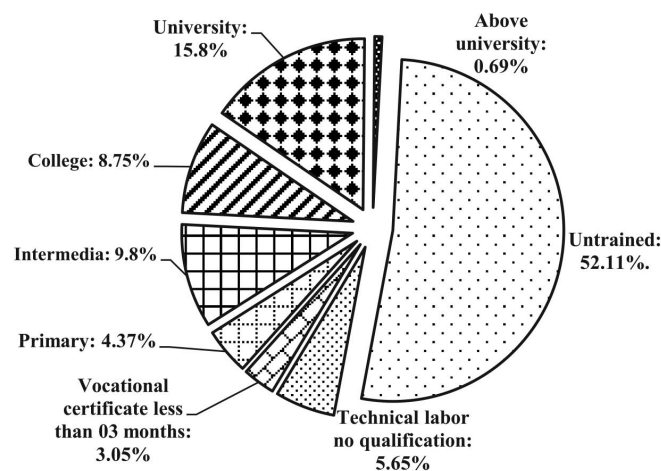
Skills/Competencies need to be supplemented	Locality	Quantity	Mean	SD	SE	P value (2-tailed)
General professional knowledge and skills	1 BRVT	531	2.64	.641	.028	.000
	2 Others	1430	2.78	.651	.017	
Specific job-related tasks	1 BRVT	531	2.81	.668	.029	.001
	2 Others	1430	2.93	.666	.018	
Language proficiency	1 BRVT	531	2.90	.612	.027	.466
	2 Others	1430	2.87	.749	.020	
Computer skills	1 BRVT	531	2.89	.572	.025	.011
	2 Others	1430	2.97	.649	.017	
Self-learning and research capabilities	1 BRVT	531	2.80	.573	.025	.000
	2 Others	1430	2.94	.708	.019	

Source: Survey Results by Consulting Group (2022 - 2023)

(4) *High unemployment among individuals with higher education (university level).* Figure 2 illustrates that laborers with a university education have the highest unemployment rate among the trained workforce in the province, accounting for

15.58%. This rate is much lower for those with college or intermediate education at 8.75% and 9.8% respectively. This somewhat indicates that the quality of education and the structure of trained professions are not aligned with labor market demand.

Figure 2. Structure of unemployment by educational level in 2022, %



Source: BRVT Provincial Employment Service Center (2023). Labor Force Report for the year 2022. Labor Demand Forecast for 2023 in BRVT province.

Some fundamental reasons leading to the situation where the supply of skilled labor, high-quality human resources fails to meet the demand both in quantity and quality in the labor market of BRVT province are:

(1) *Training and labor market:*

The number of students studying in universities in BRVT is rather modest, with less than 5,000 students in 2020. This accounts for less than 1% of the total student population in the Southeast region. In comparison, Dong Nai has a rate of over 3.4% and Binh Duong accounts for nearly 4%. When considering the population, BRVT only has 41

students per 10,000 people, which is significantly lower than the Southeast provinces' average of 355 students per 10,000 people and the national average of 195 students per 10,000 people. Although the number of students is statistically in localities from other provinces/cities they tend to choose local job opportunities after graduation. These are high quality human resource possessing valuable knowledge and skills that contribute to the province's scientific, technological, and innovative development. This poses a risk of a shortage of skilled human resources in the province.

Table 9. Number of students in universities and number of students /ten thousand population in the provinces of the Southeast region

	2015		2017		2018		2019		2020	
	Number of students	Number of students /ten thousand population	Number of students	Number of students /ten thousand population	Number of students	Number of students /ten thousand population	Number of students	Number of students /ten thousand population	Number of students	Number of students /ten thousand population
Nationwide	1753,174	191	1707,025	182	1526,111	160	1672,881	173	1905,956	195
South East	504,772	314	516,797	309	510,857	292	574,138	320	651,727	355
Binh Duong	23,252	121	26,016	126	25,566	109	27,663	113	24,652	96
Dong Nai	21,576	75	20,177	67	18,461	60	21,247	68	22,452	71
Ba Ria – Vung Tau	4,018	37	4,237	39	4,323	38	4,247	37	4,841	41

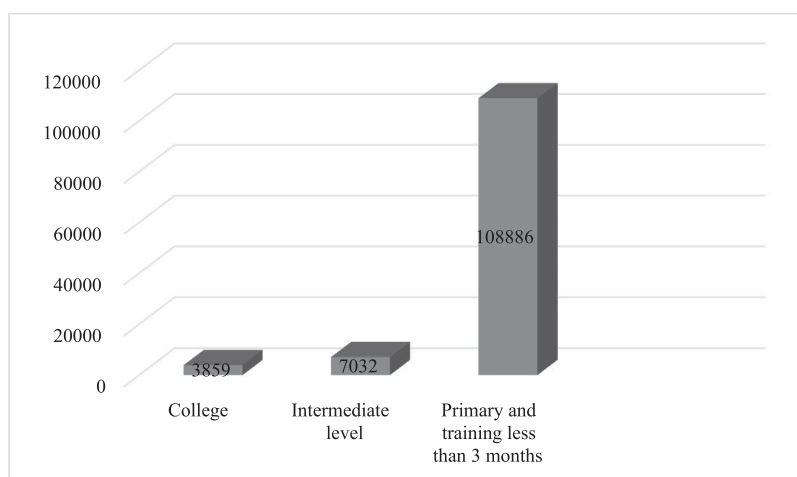
Source: General Statistics Office (2019, 2023). Statistical Yearbooks for 2018, 2022.

Furthermore. the scale of vocational training is low failing to attract students to enroll in college level. primarily focusing on intermediate and elementary

levels. As a result, the quality of training remains inadequate. posing challenges for businesses in recruiting technically skilled labor.

Figure 3. Scale of vocational training by level in BRVT province, 2017-2020

Unit: person

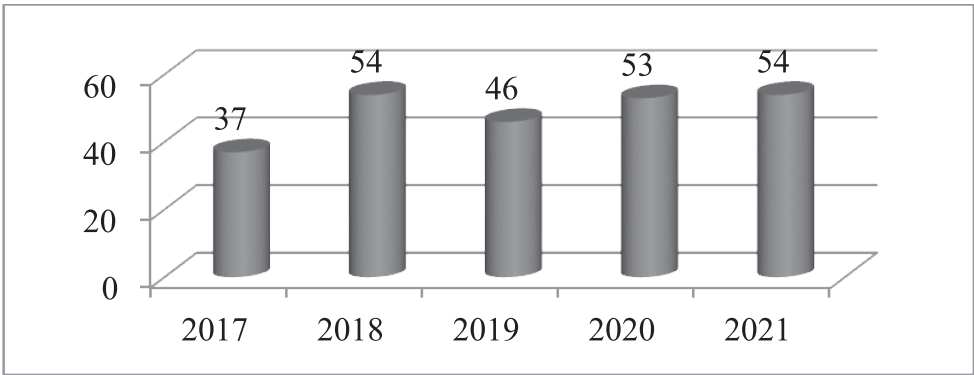


Source: Department of Labor, Invalids and Social Affairs of BRVT province, 2021

Although the quality of vocational education institutions has been significantly improved, it still only reaches an average level. During the years 2017 to 2020, there was a significant rise in the percentage of FDI enterprises that rated the quality of vocational education in the province

as good. Specifically, the proportion increased from 37% in 2017 to 54% in 2018. However, there was no further progress in the subsequent years, resulting in the rating only reaching the average threshold, which is equivalent to the national average.

Figure 4. Evaluation of vocational training quality in Ba Ria – Vung Tau by FDI enterprises, 2017-2021, %

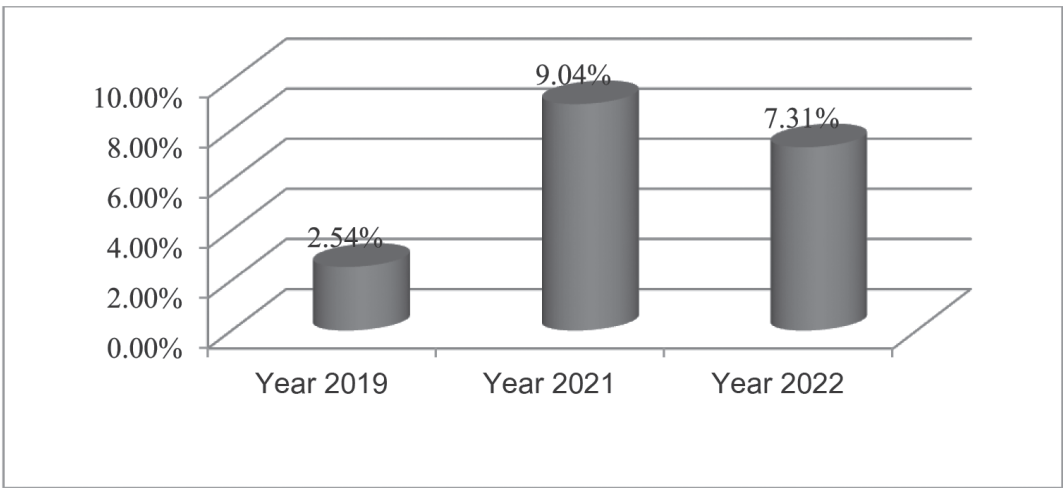


Source: VCCI, USAID (2018-2022). Provincial Competitiveness Index of Vietnam 2017-2021

(2). The proportion of labor recruited through the Employment Service Center is low and has not improved. Figure 5 illustrates that in recent years, the proportion of labor recruited through the Employment Service Center compared to the demand for recruitment by businesses has been deficient, reaching a peak of only 9.04% in 2021, meaning that it has not met 10% of the recruitment

needs of businesses. This indicates that the role of the Employment Service Center in connecting and supporting businesses in the province to attract skilled labor is still vague. Workers either approach businesses directly to seek employment or businesses announce recruitment themselves. Recruitment and labor utilization are mainly operated through market mechanisms.

Figure 5. Percentage of laborers recruited through service centers compared to recruitment needs of businesses in Ba Ria - Vung Tau province, 2019-2022



Source: Calculations based on data from the BRVT Employment Service Center (2020, 2021, 2022, 2023).

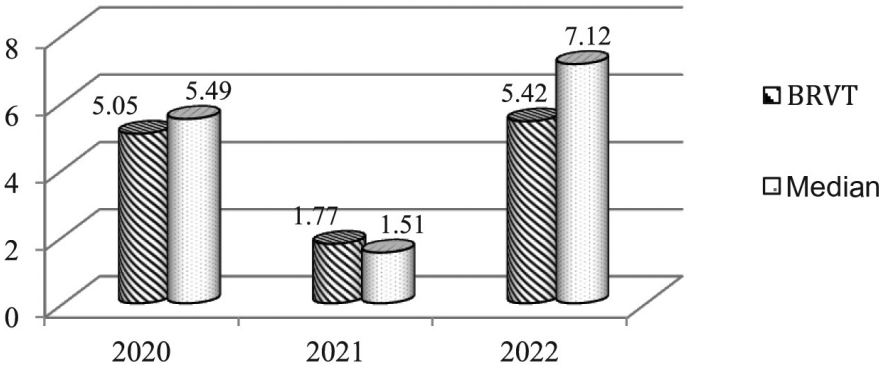
(3) There is no close connection between schools and businesses in vocational training. Many businesses

including FDI businesses have not been actively involved in training human resources. Figure 6 shows

that the proportion of training human resources costs in the total business costs in BRVT province is only above 5% lower than the national average. It is evident that businesses, including those involved in FDI, can enhance the quality of their human resources and

provide high-quality labor resources for enterprises by participating in training programs that are in line with modern practices and utilize training methods commonly used in developed industrial nations, which adhere to high industry standards.

Figure 6. Proportion of human resources training costs in total business costs (%)



Source: VCCI, USAID (2022-2023). *The Vietnam Provincial Competitiveness Index 2020-2022*.

5. Conclusions and recommendations

5.1. Conclusions

Based on the evidence and analysis of the high-quality labor market in BRVT province, the following observations are made:

- The demand for labor has witnessed a surge in both quantity and quality. Workers employed in enterprises located in the province enjoy the highest average monthly income in the Southeast region. The labor market has exhibited a robust rebound following the COVID-19 pandemic, with a particular emphasis on skilled and high-quality workforce.

There is a trend of increasing recruitment demand across all sectors, with the most significant growth seen in the province's key industries. such as mechanical engineering - automation, electrical - mechatronics, and electrical - refrigeration -industrial electricity, etc

- The quality of the human resources has improved. with a higher proportion of trained laborers compared to the national average and approximately that of the Southeast region. However, there is still a shortage in quantity and a deficiency in quality, and the province cannot meet the demand for high-quality human resources.

- Higher education and vocational education have not yet met the demands of the labor market;

- There is a lack of close linkage between

educational institutions and businesses in vocational training; vocational training conducted by businesses is minimal.

- The role of the Employment Service Center in connecting and supporting local businesses in attracting high-quality human resources is still unclear. Recruitment and utilization of labor are mainly operated through market mechanisms.

5.2. Recommendations

Disseminating information and providing updates on the socio-economic development, recruitment needs, and usage of high-quality and skilled labor regarding quantity, qualifications, and training sectors.... of businesses within the province aiming to guide vocational education activities of vocational education institutions, parents of students, and learners to create on-site human resources to meet the demands of the local labor market;

Review, adjust, reorganize, and restructure the network of universities and colleges to meet the requirements of socio-economic development and industrial growth in the province. Expanding the scale and diversifying fields and types of training; constructing a structure of professions and training levels that adhere to advancements in science and technology; linking training with the usage needs of businesses.

Vocational education institutions, particularly those

specializing in mechanical engineering - automation, electrical - mechatronics, and electrical - refrigeration - industrial electricity, are being strengthened to cultivate a highly skilled workforce that meets the demands of the labor market in terms of both quantity and quality. To achieve this, authorized agencies are investing in physical facilities and technical equipment to meet the increasingly stringent requirements of vocational education. Additionally, there is an emphasis on encouraging vocational training institutions to independently invest in physical facilities and actively develop training programs based on output standards. This involves the participation of enterprises and employers to ensure that trained workers are employed in accordance with the curriculum they have been trained in. Furthermore, these institutions are integrating relevant soft skills and professional ethics training content into their programs. By improving skills through education and training, individuals will be better equipped to navigate job transitions and both laborers and businesses will benefit from technological advancements and digital transformation.

There exists a mechanism aimed at promoting and assigning the accountability of enterprises to arrange training and retraining programs for the labor force employed within the organization. Enterprises are motivated to allocate resources towards training endeavors, including the establishment of training facilities, procurement of training equipment, formulation of training programs, cultivation of educators and managerial personnel, engagement in vocational education initiatives, and provision of internship opportunities within the company, etc.

Digitize employment data. build the Vieclambariavungtau App with full information about businesses' recruitment and training needs to connect labor supply and demand; provide timely

information on training and employing employees; and attract highly skilled workers from other localities to work in BRVT province. Training institutions and workers within and outside the province can easily find training needs and job opportunities through the App.

The Employment service Center conducts short-term, medium-term, and long-term forecasts on labor supply and demand in general and key economic sectors of the province and assesses the impacts of macroeconomic fluctuations on the supply and demand of high-quality labors, provides information on recruitment needs and training requirements of enterprises and facilitates labor supply-demand connections, etc.

Enterprises within the province proactively develop competitive policies to attract high-quality labor (employment opportunities, salaries, benefits, working conditions. etc.); Actively establish strong connections with educational institutions from student enrollment to facilitating job placements post-graduation. It is imperative for employees to consistently engage in self-study and adopt a lifelong learning approach in order to acquire the necessary knowledge and skills that align with the growing demands of the job market. Similarly, students of university and vocational education institutions should strive to accumulate knowledge and skills, particularly in foreign languages, while also shouldering professional responsibilities. This will ensure that upon graduation, they possess the requisite expertise and vocational skills, along with a positive attitude that aligns with the expectations of potential employers. This helps workers secure quality employment and contributes to the socio-economic development of BRVT.

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