

Analysis of Labour Structure by Occupation and Employment Status: A Case Study of Binh Duong Province, Vietnam

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Abstract. Improving the quality of labour force, using effectively and developing labour market are major concerns of the both central and local governments. This paper aims to analyse the labour structure of Binh Duong Province by occupation and employment status to provide a general assessment and identify problems arising in the local labour market. The findings show that Binh Duong Province has a relatively strong labour force and it increased in the period of 2015-2022. However, the labour structure is potentially unsustainable. The percentage of the high technical labour and professional qualifications has been low and tended to decrease. Unskilled workers account for a high proportion and increase every year. The labour force has increased in number but the labour structure by employment status has not improved. The labour structure classified by occupation and employment status shows that Binh Duong Province is progressing in the labour-intensive economy with some shortcomings in the labour market.

Keywords: labour structure, occupation, employment status, Binh Duong

Introduction

Binh Duong is one of the provinces with the highest development rate in Vietnam. The process of economic development towards industrialization and modernization in Binh Duong follows the changes in many issues in social life. The population has grown rapidly, the social structure has changed dramatically, and society has been transforming rapidly towards industrialization and urbanization. In that context, how has the labour structure of Binh Duong Province changed? How has the change in labour structure affected the human resources, growth quality and economic and social development of Binh Duong Province in general? How have human resource development policies of Binh Duong Province affected the province's labour structure? The paper aims to analyse the changes of labour structure through occupation and employment status in the period of 2015-2022. The research results will be the scientific basis for management, training and human resource development policies to meet the socio-economic development requirements of Binh Duong province in the future.

Document Overview and Analytical Framework

Labour classification by occupation and employment status is the classification structure of the International Labour Organization (ILO) to organize information on Labour and employment (organizing information on labour and jobs). It is part of the United Nations' international economic and social classification system. Classification of Labour structure by occupation was discussed and developed by the International Conference of Labour Statisticians (ICLS), sponsored by the ILO, in 2023. In 1949, the second conference 7, ICLS approved a list of 9 main occupational groups called the International Standard Classification of Occupations (ISCO). Subsequently, ISCO versions were successively updated, supplemented, including: ISCO-58, ISCO-68 and ISCO-88. The current version is the version called ISCO-08, published in 2008 (ILO, 2012). According to the ISCO-08 version, the national labour structure, regional or local activities include 10 main professional groups including: 1) Managers; 2) Professional; 3) Technicians and associate professionals; 4) Clerical support workers; 5) Service and sales workers; 6) Skilled agricultural, forestry and fishery

workers; 7) Craft related trades workers; 8) Plant and machine operators, and assemblers; 9) Elementary occupations; 10) Armed forces occupations.

In Vietnam, since 1999, the General Statistics Office (GSO) of Vietnam has used ISCO of ILO in the General Population and Housing Census (GSO, 1999). Since then, GSO has used it for population censuses, periodic labour and employment surveys, and annual statistical collection. The framework of ten main occupational groups translated by SGO from the ILO system following: 1) Leaders/Managers; 2) High level professional; 3) Mid-level professional; 4) Clerks; 5) Personal services, protective workers and sales worker; 6) Skilled agricultural, forestry and fishery workers; 7) Craft and related trade workers; 8) Plant and machine operator and assemblers; 9) Unskilled occupations; 10) Armed forces occupations (SGO, 1999).

Although ILO occupational classification standards were applied for the first time in Vietnam in the Population and Housing Census in 1999, the official publication of this population census has not yet published data on the structure of the 10 main occupational groups according to the ILO classification (SGO, 2001). According to Cuong (2020), occupational distribution data according to ILO standards in Vietnam only appeared from 2010 onwards, which is ten years after the first used collecting data. Information about the occupational structure according to ILO standards appears in publications announcing the results of the population census and labour and employment surveys since 2010. Although in the statistical yearbook publication system, the ILO standard occupation variable only appeared for the first time in the 2012 Statistical Yearbook, which includes data on occupational groups from 2009 (SGO, 2012). For local-level statistical publications, it will not be until 2015 that the ILO's occupational classification standards will be applied. However, these publications only include nine occupational groups in economic and social fields. The 10th group (Armed forces occupations) cannot be used. Instead, one group has not been specifically named, but is called Other. Statistical publications have not clearly defined this group, but the published data has a very small percentage.

According to Cuong (2020), based on the ILO's occupational classification standards, a number of authors have used different criteria for assessing labour force. For example, SGO grouped nine main occupational groups into five occupational labour groups as follows: (i) Leadership/High-level and middle-level technical expertise (main occupational groups 1, 2, 3); (ii) Office/sales staff (main occupational groups 4, 5); (iii) Craftsmen and machinery and equipment operators (main occupational groups 7, 8); (iv) Skilled workers in agriculture, forestry and fisheries (main occupational group 6); and (v) Simple labour (main occupation group 9) (SGO, 2019).

Using data from the 1999 and 2009 Population and Housing Censuses of the Southern Key Economic Region, Cuong and Loi (2017a) grouped nine main occupational groups into four occupation-based social strata including the upper class, the upper middle class, the lower middle class and the lower class. Having identified the characteristics of the quantitative distribution of those four social classes, the authors considered some differences between the four social classes mentioned above. These are differences by sub-region and urban-rural area. Differences in the distribution of occupational structure and social class based on occupation of the Kinh ethnic group and ethnic minorities (Cuong & Loi, 2017b). This analytical logic is also applied to Binh Duong Province. The two authors presented a quantitative structure of four social classes based on occupation by urban-rural, gender, ethnicity and religion in Binh Duong during the period of 1999-2009 (Cuong & Loi, 2019).

In a recent new experiment, Cuong (2020) has built a diagram of five social classes based on occupations to analyze the occupational structure of Ba Ria - Vung Tau Province between the 1999 and 2009 censuses. The five social class classification framework includes: (i) managerial middle class (occupation group 1 in SGO's occupational classification table); (ii) technical middle class (combining job groups 2 and 3); (iii) services middle class (combining

occupational groups 4 and 5); (iv) skilled working class (combined occupation groups 6, 7, 8); and (v) un-skilled working class (occupation group 9) (Cuong, 2020a).

Applying the research method and analytical framework of previous authors, using data from Binh Duong Statistical Yearbook of Binh Duong Statistics Office (BDSO) from 2015 to 2022, the study aims to evaluate labour changes of Binh Duong where is considered the most dynamic development province of Vietnam in the quarter of a century. Changes in labour structure by occupation and employment status will be considered in relation to the general development of the total population and the scale of labour force.

Results and Discussion

Binh Duong Province has a rapid population growth rate. Within eight years (2015-2022), the population of Binh Duong increased by 693,877 people, an average of approximately 87,000 people per year, an average rate of 4.2% per year. In 2018, Binh Duong had the highest population growth of 5.2%; 2021 has the lowest increase, 2.4%. The population increase leads to an increase in the labour force. In 2015, Binh Duong had 1,530,230 working people. In 2022, the workforce were 1,760,340 people, increased 421,183 people. On average, each year, Binh Duong Province has an additional 53,000 working people working. As well as population growth, annual employment of workers over 15 years old working in economic sectors increases by an average of 3.9% per year. The year 2018 had the highest increase of 5.2%; the year with the lowest growth rate is 3.9%. The increase in the labour force working in economic sectors is related to population growth and tends to be more stable. Table 1 presents the quantitative structure of population size, labour size and detailed number of workers aged 15 years of age and above working in the economy, according to the framework of ten main occupational groups transferred by SGO from the ILO system.

Table 1: Annual employed population at 15 years of age and above by occupation

Oder	Years	2015	2016	2017	2018	2019	2020	2021	2022
1	Total population	2069247	2138781	2227154	2345184	2456319	2580150	2643764	2763124
2	Total annual employed population	1339131	1394959	1456081	1533230	1594226	1594373	1672729	1760314
3 (1)	Leaders/Managers	10313	10742	11214	11486	11559	9684	7967	7938
4 (2)	High level professional	61329	36885	66685	71127	74501	74647	74669	74499
5 (3)	Mid-level professional	52466	54654	57048	70217	72900	68214	55585	55433
6 (4)	Clerks	63154	65788	68671	98772	102637	93110	69247	58834
7 (5)	Personal services, protective workers and sales worker	220313	229497	239553	248163	258045	233613	275047	303872
8 (6)	Skilled agricultural, forestry and fishery workers	64090	66764	69687	70902	59796	39831	39245	39949
9 (7)	Craft and related trade workers	310406	323345	337514	343615	357604	367293	374441	386682
10 (8)	Plant and machine operator and assemblers	368188	383537	400342	405937	435158	510013	559479	591327
11 (9)	Unskilled occupations	186781	194568	203094	2102222	218968	197672	215115	239842
12 (10)	Other	2090	2179	2273	2789	3058	294	1754	1938

Figure 1 describes the trend of changing the size of 4 important labour groups accounting for a low proportion of the total number of employees in Binh Duong province. The leadership group (who operate and manage in state the provincial, district and commune affiliations) are required to have a high level of skills accounting a very low proportion. Compared to the total number of employees, the leadership group accounted for 0.77% in 2015, decreasing to 0.45% in 2022. The group of high-level employees are required specialized knowledge at least the Bachelor degree, professional skills and work experience in the fields of science and technology, health, education, business and management, information and communication technology, law, culture and society also increases quite slowly. In 2022, high-level professional groups account for 4.2% of the labour structure of Binh Duong province. The group of intermediate-level occupations includes occupations that require knowledge at the intermediate level (college) in the fields of science and technology, health, business and management, law, culture, society, information communication and teachers also tend to decrease compared to the total labour size. In 2022, the mid-level professional group accounts for 3.1% of the total workforce and tends to decrease sharply, accounting for 4.7% in 2015 and 3.3% in 2022.

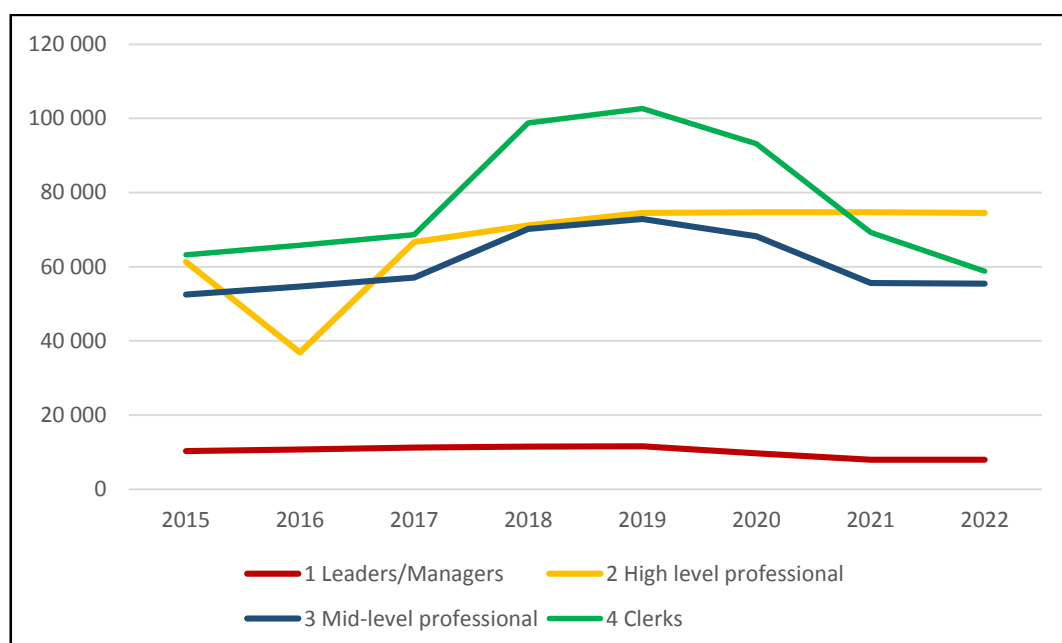


Figure 1: Changes in the size of four high-skilled labour groups in the period of 2015-2022

Figure 2 describes the fluctuations of 5 labour groups from 5th to 9th position. Among these 5 groups, the group 7 is the most remarkable one (Craft and craft related workers) and group 8 (machine operators and assemblers), are two groups that always account for a high percentage of the workforce in Binh Duong Province. Both of these groups are growing strongly, compatible with population and labour sizes. The population and labour size of Binh Duong Province have increased in recent years, but the labour size of groups 7 and 8 has grown to 21% and 23%.

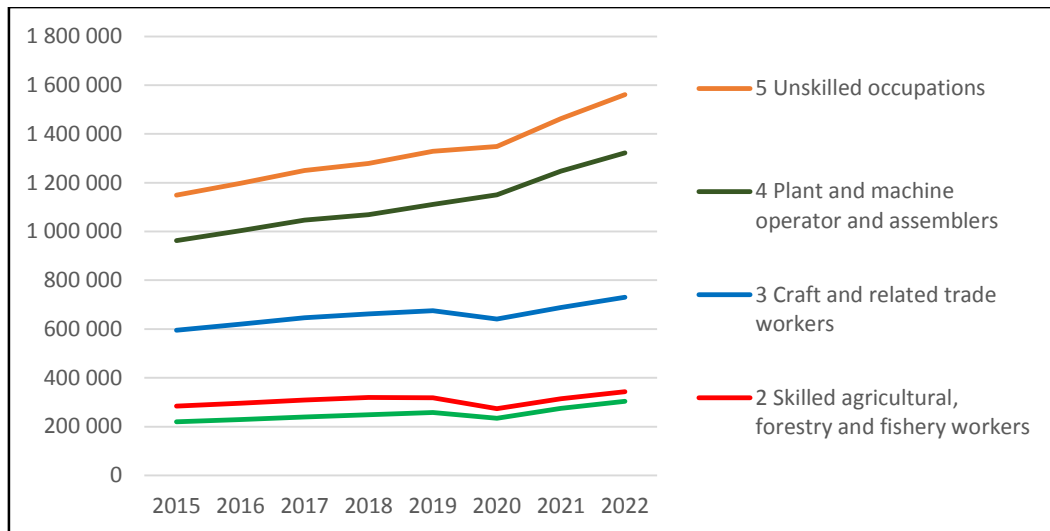


Figure 2: Changes in the size of five low-skilled labour groups in the period of 2015-2022

Table 2 presents the population size and labour force size by employment status. Data shows that Group 5 (Cooperative members) has not been properly counted. Group 6 does not yet have any data. Groups 1, 2, 3, and 4 typically grow gradually; group 1 (salary workers) consistently makes up the largest share, ranging from 71% to 81%. Individuals working for themselves came in second place, with a range of 14% to 18.3%. Unpaid family workers, the fourth group, came in third place with a rate ranging from 0.03 to 0.05%. At 0.01 to 0.02%, the second group (Employers) consistently has the lowest rate.

Table 2: Annual employed population at 15 years of age and above by employment status

Oder	Years	2015	2016	2017	2018	2019	2020	2021	2022
1	Total population	2069247	2138781	2227154	2345184	2456319	2580150	2643764	2763124
2	Total annual employed population	1339131	1394959	1456081	1533230	1594226	1594373	1672729	1760314
3 (1)	Wage workers	988218	1035022	1087032	1156792	1203651	1289738	1350616	1409020
4 (2)	Employer	34005	34693	35712	36055	37525	26389	25775	24611
5 (3)	Own account worker	244893	250741	257886	262548	269816	223636	230623	252268
6 (4)	Unpaid family worker	72014	74233	75452	77556	82925	54166	65260	73954
7 (5)	Member of cooperative	-	-	-	278	309	443	455	461
8 (6)	Apprentice	-	-	-	-	-	-	-	-

According to Robert (2009), wage workers are people who work for employers in the public sector, private sector, or collective economy; receive remuneration in salary or in kind; the basic remuneration does not depend directly on the revenue of the unit they work for. Wage workers are recognized as an elite, qualified group, mainly working in industries and services, where labour productivity and labour standards are guaranteed. This reflects the current economic situation of Binh Duong Province its economic development has based on attracting investments, especially foreign investments. Most workers work in the state economic sector, enterprises and collective economies. The labour structure with a high percentage of wages

workers also reflects the reality that the economy is still “downstream” of the value chain; At the same time, it is a testament to the reality of labour-intensive industry. The most concerning thing is that over the past 8 years, this structure has not improved that is clearly shown in Table 2 and Figure 1.

Table 3: Classification structure of employed population at 15 years of age and above by employment status (%)

Oder	Years	2015	2016	2017	2018	2019	2020	2021	2022
1	Total (%)	100	100	100	100	100	100	100	100
2	Wage workers	74,00	74,10	74,60	75,49	75,50	80,91	80,74	80,03
3	Employer	2,50	2,50	2,50	2,40	2,30	1,66	1,54	1,40
4	Own account worker	18,20	18,00	17,70	17,10	16,99	14,00	13,79	14,34
5	Unpaid family worker	5,30	5,40	5,20	5,00	5,20	3,40	3,90	4,20
6	Member of cooperative	0,00	0,00	0,00	0,01	0,01	0,03	0,03	0,03

Conclusion

Binh Duong is one of the provinces in Vietnam having a “golden” population structure, the rate of working employees aged 15 years and older has maintained at 62% to 65% since 2015 that is the highest rate in the relevant region. The development of labour scale of Binh Duong Province accurately reflects the economic progress of a locality that has developed a horizontal industrial model, attracting investment in all industries, with abundant investment capital, especially foreign investment...; the labour structure also reflects that Binh Duong's industrial economy is still a labour-intensive, low-productivity industry, with the highest proportion of human resources being craftsmen (and other related workers), assemblers and operators of machinery and equipment, personal services, security, sales. This is the workforce for the textile and garment industries, wood processing, food processing... which are industries that use a large number of workers.

The labour structure by occupation and employment status in Binh Duong Province has some potential shortcomings in labour and employment issues. The first is the imbalance between supply and demand of professional and technical labour. An economy in which the workforce belonging to three highly qualified groups (managerial leaders, high-level technical professionals, mid-level technical professionals) accounts for a low proportion and tends to decrease is a matter of concern. There may have been a potential risk of workers having a higher level of training than job requirements. The labour market may become distorted if wage workers take positions requiring less education than they have. In addition to having an adverse effect on business and production, those with university or college degrees who take employment paying little wages also represent a waste of money spent on education and training. There is a chance that the supply and demand of labour in Binh Duong Province will be out of balance given the current labour structure. There will be a worker shortage in an economy with high levels of investment, but managing the surplus labour during hard times or a recession might be challenging. The growing number of wage earners has an impact on laws pertaining to labour and social security, workplace safety, and labour market difficulties.

References

- BDSO (2020). Binh Duong Statistical Yearbook 2019. Statistics Publishing House.
- BDSO (2022). Binh Duong Statistical Yearbook 2021. Statistics Publishing House.
- Cuong, B. T. & Loi, V. M. (2017a). Urban-rural and sub-regional differences in the social structure based on occupations in the Southern Key Economic Region in the period 1999-2009. Printed in: Le Thanh Sang (Editor, 2017). *Rural-urban relations in sustainable development in the Southeast region. Proceedings of the National Science Conference*. [Khác biệt đô thị – nông thôn và tiểu vùng trong cơ cấu xã hội dựa trên nghề ở Vùng Kinh tế trọng điểm phía Nam giai đoạn 1999-2009. In trong: Lê Thanh Sang (Chủ biên, 2017). *Quan hệ nông thôn - thành thị trong phát triển bền vững vùng Đông Nam Bộ. Kỷ yếu Hội thảo Khoa học quốc gia*]. Vietnam: Social Sciences Publishing House.
- Cuong, B. T. & Loi, V. M. (2017b). Ethnic differences in the social structure based on occupations in the Southern Key Economic Region in the period 1999-2009. Printed in: Institute of Ethnology (2017). *Basic and urgent issues regarding ethnicity and ethnicity in our country today: Theory and practice. Yearbook of the 2016 National Science Conference*. [Khác biệt tộc người trong cơ cấu xã hội dựa trên nghề ở Vùng Kinh tế trọng điểm phía Nam giai đoạn 1999-2009. In trong: Viện Dân tộc học (2017). *Những vấn đề cơ bản, cấp bách về dân tộc, tộc người ở nước ta hiện nay: Lý luận và thực tiễn. Kỷ yếu Hội nghị Khoa học quốc gia năm 2016*]. Vietnam: Social Sciences Publishing House.
- Cuong, B. T. & Loi, V. M. (2019). Occupation-based Social Structure in Binh Duong Province, 1999-2009. *Thu Dau Mot University Journal of Science*, 44(1).
- Cuong, B. T. (2020). A statistical analysis of middle and working classes in Viet Nam during the 2010s [Một trình bày thống kê về giai cấp trung lưu và công nhân lao động ở Việt Nam thập niên 2010]. *Thu Dau Mot University Journal of Science*, 5(48).
- Cuong, B. T. (2020). Structure of occupation-based social classes in Bà Rịa - Vũng Tàu Province in the 2000s. [Cơ cấu giai cấp xã hội dựa theo nghề ở tỉnh Bà Rịa – Vũng Tàu thập niên 2000]. *Thu Dau Mot University Journal of Science*, 45(2).
- International Labour Organization (2012). International Standard Classification of Occupations: ISCO-08 / International Labour Office - Geneva: ILO, 2012. ISBN 978-92-2-125952-7 (print). ISBN 978-92-2-125953-7 (web pdf). <http://www.ilo.org/public/english/bureau/stat/isco/index.htm>
- SGO (2001). Statistical Yearbook of Vietnam 2000. Statistics Publishing House.
- SGO (2012). Statistical Yearbook of Vietnam 2011. Statistics Publishing House.
- SGO (2019). Statistical Yearbook of Vietnam 2018. Statistics Publishing House.
- Steinfeld, R. (2009). Coercion/Consent in Labor (PDF). COMPAS Working Paper No. 66. Oxford: University of Oxford.
- Tổng cục Thống kê (1999). *Decision of the Director General of the General Statistics Office on "Issuing the ethnic list, religion list and occupation list applicable to the 1999 General Population and Housing Census"* [Quyết định của Tổng Cục trưởng Tổng cục Thống kê về việc "Ban hành danh mục dân tộc, danh mục tôn giáo và danh mục nghề nghiệp áp dụng cho Tổng Điều tra dân số và nhà ở năm 1999"]. No 114/QĐ-TCTK, Date 29-3-1999.