

Serafica, Ramonette B.; Oren, Queen Cel A.; Esguerra, Emmanuel F.; Orbeta, Aniceto C.

**Working Paper**

## Increasing labor productivity in the services sector: Towards a theory of change and some design options

PIDS Discussion Paper Series, No. 2025-46

**Provided in Cooperation with:**

Philippine Institute for Development Studies (PIDS), Philippines

*Suggested Citation:* Serafica, Ramonette B.; Oren, Queen Cel A.; Esguerra, Emmanuel F.; Orbeta, Aniceto C. (2025) : Increasing labor productivity in the services sector: Towards a theory of change and some design options, PIDS Discussion Paper Series, No. 2025-46, Philippine Institute for Development Studies (PIDS), Quezon City, <https://doi.org/10.62986/dp2025.46>

This Version is available at:

<https://hdl.handle.net/10419/339171>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*



## **Increasing Labor Productivity in the Services Sector: Towards a Theory of Change and Some Design Options**

*Ramonette B. Serafica, Queen Cel A. Oren,  
Emmanuel F. Esguerra, and Aniceto C. Orbeta Jr.*

The PIDS Discussion Paper Series constitutes studies that are preliminary and subject to further revisions. They are posted on the PIDS website for purposes of soliciting comments and suggestions for further refinements. The studies under the Series are unedited and unreviewed. The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute. The Institute allows citation and quotation of the paper as long as proper attribution is made.


### **CONTACT US:**

RESEARCH INFORMATION DEPARTMENT  
Philippine Institute for Development Studies

18th Floor, Three Cyberpod Centris – North Tower  
EDSA corner Quezon Avenue, Quezon City, Philippines

 <https://www.pids.gov.ph>

 [publications@pids.gov.ph](mailto:publications@pids.gov.ph)

 (+632) 8877-4000

Increasing Labor Productivity in the Services Sector:  
Towards a Theory of Change and Some Design Options

Ramonette B. Serafica, Queen Cel A. Oren,  
Emmanuel F. Esguerra, and Aniceto C. Orbeta Jr.

PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES

December 2025

## Abstract

The growth of the Philippine economy has been predominantly led by the services sector. However, this growth pattern has resulted in increased employment primarily within subsectors characterized by relatively low labor productivity and wages. Given that the services sector accounts for the highest share of gross domestic product (GDP) and employment among major economic sectors, enhancing productivity in labor-absorbing services is essential for both growth and equity.

Analysis of labor productivity patterns reveals significant variation across services subsectors. While Financial and insurance activities, Real estate, and Information and communication sectors have the highest productivity, Wholesale and retail trade, Transportation and storage, Accommodation and food service activities, and Other services sectors recorded the lowest. Low-productivity sectors primarily comprise low- to medium-skilled occupations. There is also variability in labor productivity in each subsector across regions. Regional disparities in productivity are most pronounced in the high productivity sectors – Financial and insurance activities, Real estate, and Information and communication sectors. In contrast, Transport and storage, and Other services exhibit the least variability in productivity levels.

A mix of strategies is needed to enhance the capabilities of firms and workers, and to incentivize them to upgrade. To increase labor productivity in the services sector, a high-level Theory of Change model was developed, focusing on four core strategies: *management quality and practices, business innovation, workforce development, and technology adoption*. Although beyond the control of the firm, broader structural reforms must also be pursued to create an operating environment that is conducive to upgrading. The umbrella ToC provides a comprehensive and coherent framework to help the government more effectively identify pathways to connect interventions to desired outcomes, rationalize its investments to assist firms and workers, and adopt appropriate policy levers.

**Keywords:** labor productivity, services, labor market programs, productivity improvement programs, theory of change

## Table of Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Context and relevance of the study	1
1.2	Objectives of the study	2
1.3	Significance of the study to policy makers & implementing agencies	2
1.4	The Theory of Change (ToC) Framework	3
1.5	Scope and limitations	4
<b>2</b>	<b>Patterns of labor productivity in the Philippine services sector</b>	<b>4</b>
2.1	Structure of the economy	4
2.2	Labor productivity	12
2.3	Decomposition of labor productivity growth	17
<b>3</b>	<b>Understanding labor productivity in the service sector</b>	<b>22</b>
3.1	Characteristics of services	22
3.2	Factors that can improve productivity in the services sector	25
3.3	Options for expanding productive employment in services	31
<b>4</b>	<b>Relevant laws and government programs in the Philippines</b>	<b>35</b>
4.1	Policy environment for services and productivity	35
4.2	Active labor market programs (ALMPs)	38
4.3	Productivity improvement programs for enterprises	41
4.4	Technology assistance programs for enterprises and workers	54
4.5	Summary	56
<b>5</b>	<b>Proposed umbrella Theory of Change for improving labor productivity in services</b>	<b>57</b>
5.1	Core strategies	59
5.2	Design, implementation, and risks	59
5.3	Expected change and moderating factors	61
<b>6</b>	<b>Conclusion and recommendations</b>	<b>63</b>
<b>7</b>	<b>References</b>	<b>66</b>
<b>8</b>	<b>Annex 1. Measuring labor productivity</b>	<b>73</b>
8.1	ASPBI (establishment) data	73
8.2	GVA per working hour	74
8.3	Comparison of different measures and data sources	75
<b>9</b>	<b>Annex 2. Labor productivity profiles by region</b>	<b>77</b>
9.1	National Capital Region (NCR)	77
9.2	Cordillera Administrative Region (CAR)	78

9.3	Region I (Ilocos Region)	79
9.4	Region II (Cagayan Valley)	80
9.5	Region III (Central Luzon)	82
9.6	Region IV-A (CALABARZON)	83
9.7	Region IV-B (MIMAROPA Region)	84
9.8	Region V (Bicol Region)	86
9.9	Region VI (Western Visayas)	87
9.10	Region VII (Central Visayas)	88
9.11	Region VIII (Eastern Visayas)	90
9.12	Region IX (Zamboanga Peninsula)	91
9.13	Region X (Northern Mindanao)	92
9.14	Region XI (Davao Region)	93
9.15	Region XII (SOCCSKSARGEN)	95
9.16	Region XIII (Caraga)	96
9.17	BARMM	97
<b>10</b>	<b>Annex 3. Employment by services subsector and occupation, selected years</b>	<b>99</b>

## List of Tables

Table 1. Labor Productivity using GVA and number of employed persons by services subsector, 2012-2024 (in thousand pesos per worker, constant 2018 prices)	14
Table 2. Labor productivity levels by subsector (Index, Real Estate = 100)	14
Table 3. Labor productivity levels by subsector (Index, 2012 = 100)	15
Table 4. Standard deviation of regional level productivity by industry from 2012 to 2024 (in thousand pesos, constant 2018 prices)	15
Table 5. Share of workers in low, medium, and high productivity sectors, by occupational skills level, 2013, 2018, and 2024	16
Table 6. Priority within the 4Ts agenda	33
Table 7. Relevant policy reforms for the past 10 years	35
Table 8. Types of productivity improvement programs	42
Table 9. Designated National Productivity Organization (NPO) in selected Asian economies	46
Table 10. Outcome indicators	61
Table 11. Impact indicators	62

## List of Figures

Figure 1. Gross Domestic Product by major sectors, 2000-2024	4
Figure 2. Gross Domestic Product by Major Industries, 2000–2024, Growth Rates	5
Figure 3. GDP: Industry, Agriculture, forestry, and fishing, selected services subsectors, (in thousands PHP), 2000-2024	5
Figure 4. GDP: Industry; Agriculture, forestry, and fishing; and Selected services subsectors, 2000-2024, Growth rates	6
Figure 5. Employed persons by major industry (in thousands), 2000-2024	7
Figure 6. Employed persons by major industry, 2000-2024, Growth rates	7
Figure 7. Employed persons: Industry, Agriculture, and Selected services subsectors, 2000-2024, Growth rates	8
Figure 8. Growth in employment and average daily basic pay, 2024	8
Figure 9. Employed persons by services subsectors, 2012-2024	9
Figure 10. Proportion of employed persons by industry and by sex, August 2024	10
Figure 11. Distribution of skill level based on occupation, by sector	11
Figure 12. Distribution of skill level based on occupation, by services subsector, 2013 and 2024	12
Figure 13. Per-worker labor productivity level in 2022	13
Figure 14. Productivity growth: Three major industries using MRS (2016) approach	19
Figure 15. Productivity growth: Selected services subsectors using MRS (2016) approach	20
Figure 16. Productivity growth: Three major industries using HLL (2019) approach	21
Figure 17. Productivity growth: Selected services subsectors using HLL (2019) approach	22
Figure 18. Certain characteristics of services hamper their productivity	23
Figure 19. Umbrella Theory of Change to Improve Services Productivity	58

## List of Boxes

Box 1. Business services that support innovation	34
Box 2. Managers Course Tracer Study	52

# Increasing labor productivity in the services sector: Towards a theory of change and some design options

## FINAL REPORT

**Ramonette B. Serafica, Queen Cel A. Oren, Emmanuel F. Esguerra, and  
Aniceto C. Orbeta, Jr. \***

## 1 Introduction

### 1.1 Context and relevance of the study

In the last 30 years, the growth of the Philippine economy has been service sector-led, and while employment has increased, this has occurred mostly in subsectors of services where labor productivity and wages are relatively low. This pattern of growth has been attributed to the weakness of manufacturing growth on the one hand, and the rise in domestic consumption and the increase in non-tradeable services on the other hand, underwritten by an emergent middle class sustained by overseas workers' remittances and the IT-BPM industry (De Dios and Tũaño, 2022). The current situation has prompted the question of whether the Philippines still has a chance at industrialization (De Dios and Williamson, 2014).

The failure of Philippine industrialization anchored on export-oriented manufacturing has elicited a great deal of discussion and questioning whether this route to development is still a feasible one for the country to pursue at this time. Several factors have been cited for the lack of success: first, the failure to attract FDI into manufacturing on account of the political instability in the 1980s-early 1990s; second, the limited domestic market for local manufacturers resulting from trade liberalization in the 1990s; third, labor migration for overseas jobs starting in the 1990s and the consequent industrial de-skilling; and finally, the persistently appreciating peso that penalized manufactured exports (De Dios and Williamson, 2015). In a nutshell, both the external environment (i.e., advances in technology, current trading rules) and the internal dynamics (i.e., structure of incentives) have caused the Philippines to miss out on a strategy that could have provided high-productivity jobs to many semi-skilled and low-skilled workers. It may, therefore, need to consider services as the driver of its industrial transformation (Rodrik and Sandhu, 2024; Baldwin, Freeman, and Theodorakopoulos, 2024).

Industrialization, characterized by export-oriented manufacturing, has historically served as the principal catalyst for economic growth and development in nations such as South Korea, Taiwan, and China. However, this model is becoming less viable for today's developing economies. Modern manufacturing has become increasingly skill- and capital-intensive due to innovation and new technologies like automation, robots, and 3D printing, which reduce demand for low-skilled labor. This means formal manufacturing sectors in developing countries have lost their capacity to absorb significant amounts of labor. Thus, the future of employment and jobs in developing nations primarily resides in the services sector (te Velde

---

\* Senior Research Fellow, Research Specialist, Distinguished Visiting Research Fellow, and Emeritus Research Fellow, respectively, of the Philippine Institute for Development Studies (PIDS). The authors are grateful to the Development Academy of the Philippines (DAP), the National Wages and Productivity Commission (NWPC), and the UP Institute for Small-Scale Industries (UP ISSI) for sharing invaluable information and insights. The administrative assistance of Ms. Lourdes M. Catacutan is likewise acknowledged.

The views expressed in this paper are those of the authors and do not necessarily reflect the position or official policy of any agency of the Philippine government. The authors are solely responsible for the analysis and conclusions in this paper including any errors.

2017; Rodrik and Sandhu 2024). Given the size of the sector and its role in the economy, there is a need to be proactive and formulate a strategy to increase productivity in services.

Enhancing productivity in labor-absorbing services is an essential priority for both growth and equity (Rodrik and Sandhu 2024). Developing nations can successfully transition to a services-oriented growth model by emphasizing productivity improvement in labor-intensive services, implementing policies to support these sectors, and utilizing digital technologies while mitigating skill and infrastructure deficiencies (te Velde, D.W. 2017; Nayyar et al. 2021). For the Philippines, expanding service industries outside the national capital region is also vital to ensure that services-led development contributes to broad-based and inclusive growth (Serafica 2024; Serafica et al. 2021).

## *1.2 Objectives of the study*

Understand the mechanisms to improve labor productivity in the services sector to guide the design of government policies and programs.

### **Specific Objectives**

- i. Analyze patterns of labor productivity in the services sector
- ii. Develop an umbrella theory of change (ToC) to guide the development of specific interventions to increase labor productivity in the services sector.
- iii. Suggest design ideas for evaluating interventions aimed at increasing labor productivity in the services sector.

## *1.3 Significance of the study to policy makers & implementing agencies*

As the services sector continues to expand, labor productivity must increase to ensure that the structural transformation of the economy leads to higher incomes for everyone, fostering broad-based and inclusive growth as articulated in Ambisyon Natin 2040 (NEDA 2017).

Chapter 4 of the Philippine Development Plan (PDP) 2023-2028 discusses the importance of increasing income-earning ability and focuses on the following key outcomes: (a) increased employability, (b) expanded access to employment opportunities, and (c) the achievement of shared labor market governance (NEDA 2022). Furthermore, the current administration has passed two pieces of legislation, namely: Republic Act No. 11962 or the “Trabaho Para sa Bayan Act,” a 10-year employment plan signed in 2023 and Republic Act No. 12063 or the "Enterprise-Based Education and Training (EBET) Framework Act" signed in 2024. For the services sector, Chapter 7 of the PDP 2023-2028 elaborates on the imperative to strengthen creativity and innovation in services value proposition by ensuring the sustainable supply of a competitive, creative, and skilled workforce (NEDA 2022).

The ToC provides a conceptual roadmap for policymakers that can be used in designing labor market and productivity improvement programs by the national government agencies such as the DOLE, TESDA, DSWD, and DTI, as well as the Local Government Units (LGUs). The ToC can inform the design of more targeted and effective interventions in partnership with the private sector, enabling better program evaluation focused on productivity and promoting a more integrated approach to workforce and industry development in the services sector.

## 1.4 The Theory of Change (ToC) Framework

The Theory of Change (ToC) is a strategic framework that outlines how specific interventions lead to desired outcomes by mapping out a sequence of early and intermediate results. This approach diverges from traditional linear models that primarily focus on inputs and activities, instead emphasizing the causal pathways that connect interventions to outcomes. The ToC method applies critical thinking in designing, implementing, and evaluating an initiative such as a policy, program, or project intended to achieve transformative change (Serrat 2017). A theory of change (ToC) is “a purposeful model of how an initiative—such as a policy, a strategy, a program, or a project—contributes through a chain of early and intermediate outcomes to the intended result” (Ibid, p.237). The ToC should explain how and why pathways of change contribute to a final outcome and use concepts of logic models.<sup>1</sup> Moreover, there are six interrelated issues that a theory of change should be able to answer, namely (1) **external context** – the underlying causes, impacts, and main concern that needs to improve in the long term; (2) **beneficiaries** – those that will benefit or whose actions or behavior will be influenced; (3) **results** – the benefits that the initiative aims to deliver; (4) **time span** – when the benefits are realized; (5) **interventions** – what will be done to ensure that the changes will happen; and (6) **assumptions** – why or the basis for believing that the theory of change is correct.

A key strength of the ToC methodology lies in its ability to clarify assumptions and risks. By making assumptions explicit, stakeholders can test and measure them, leading to the design of appropriate strategies that manage risks, leverage opportunities, and mitigate threats. This proactive approach to risk management is essential for the successful implementation of interventions. ToC is particularly relevant in the context of labor market interventions, where it helps identify and select strategies that yield desired outcomes such as employment, income generation, and vocational training. By connecting interventions to their underlying causes and expected outcomes, ToC facilitates a clear understanding of how specific strategies can address labor market challenges. For example, ILO (2021a) examined the problem of transitioning workers and enterprises from the informal to the formal economy covered by legislation and enjoying effective protection. They developed an **umbrella theory of change** that provides a framework to guide the development of specific theories of change to transition to the formal sector. The umbrella ToC could be adapted to a specific occupational group, such as street vendors, or a specific sector, such as the construction sector. The framework could also be adapted to look into specific policy areas, forms of informality, or socio-economic contexts. The ToC does not capture all the changes needed to reduce all forms of informality in all contexts and recognizes that the challenges will be different depending on the situation. A related ToC developed by the ILO (2021b) looks into informal enterprises and decent work. A fundamental argument of the ToC is that informality hurts the survival and growth of SMEs, which in turn adversely affects the likelihood of decent work. Enterprise formalization seeks to bring enterprises under the ambit of regulation, along with the related advantages and obligations. Increasing the incidence of formality requires not only the promotion of formal entities at the onset but also facilitating the transition from informality and preventing the informalization of enterprises that are already in the formal sector. It recognizes that there is no ‘one-size-fits-all solution’ as economies have different structures and circumstances.

---

<sup>1</sup> According to Serrat (2017), a theory of change provides a strategic view whereas a logic model (results framework) is more tactical in nature describing the process of delivering an outcome. Others view logic models as a type of theory of change, used “when actions involve direct services or a discrete intervention for a defined group of people that is implemented in a predicted manner” (The Annie E. Casey Foundation 2022, p. 12).

## 1.5 Scope and limitations

The study focuses on the commercial services sector and does not include government services, specifically Section O (Public Administration and Defense; Compulsory Social Security) of the ISIC Rev. 4 in the analysis of labor productivity.

The development of a ToC should involve a collaborative process that incorporates multiple stakeholder perspectives. Learning and adaptation are also integral components of the ToC methodology. This iterative process promotes continuous learning and improvement throughout the lifecycle of a program, from design to closure. A shared theory of change enhances communication by clearly articulating a unified vision and strategy among stakeholders. Given the time and budget constraints, only an **umbrella ToC** will be developed. The design of a specific program or intervention, which will require stakeholder consultations, validation, and customization, is beyond the scope of the study. Nonetheless, by developing a comprehensive and coherent ToC and identifying appropriate indicators and data sources, specific interventions can be tested in subsequent phases, if any, and refined based on their effectiveness.

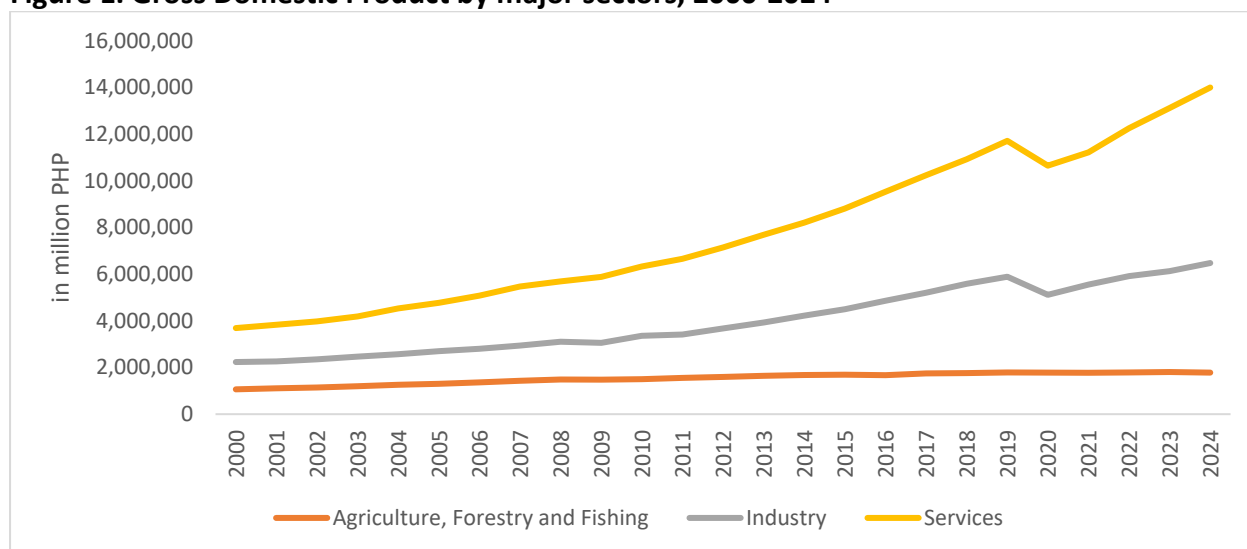
## 2 Patterns of labor productivity in the Philippine services sector

### 2.1 Structure of the economy

#### 2.1.1 Gross Domestic Product by sector

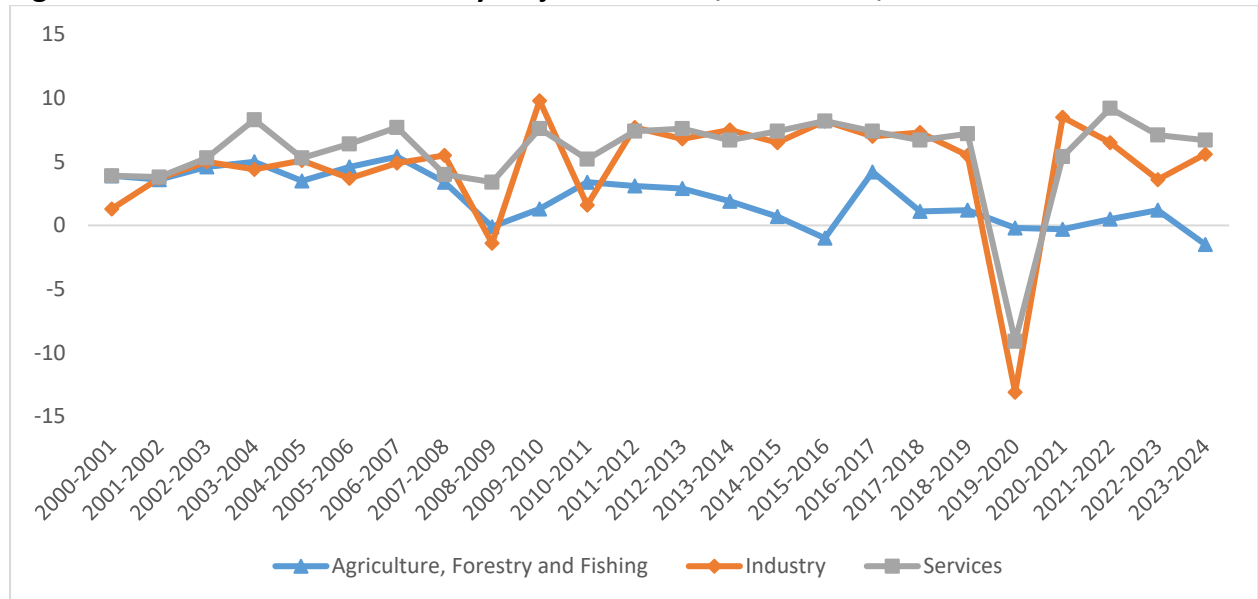
That the services sector has surpassed agriculture and industry in terms of share in GVA and employment is well known. This feature of Philippine economic growth makes the Philippines an outlier relative to its regional peers (World Bank, 2018). The services sector accounts for the highest share of GDP among the three major economic sectors, and this share has been increasing since the 1980s (Nomura and Ho 2024). Figure 1 shows that the GDP of the services and industry sectors has been consistently increasing, except for a notable decline in 2020 during the COVID-19 pandemic. In contrast, the growth rate of the agriculture sector was not significantly affected by the pandemic, but it remains low and has been gradually declining (see Figure 2).

**Figure 1. Gross Domestic Product by major sectors, 2000-2024**



Source: PSA National Accounts

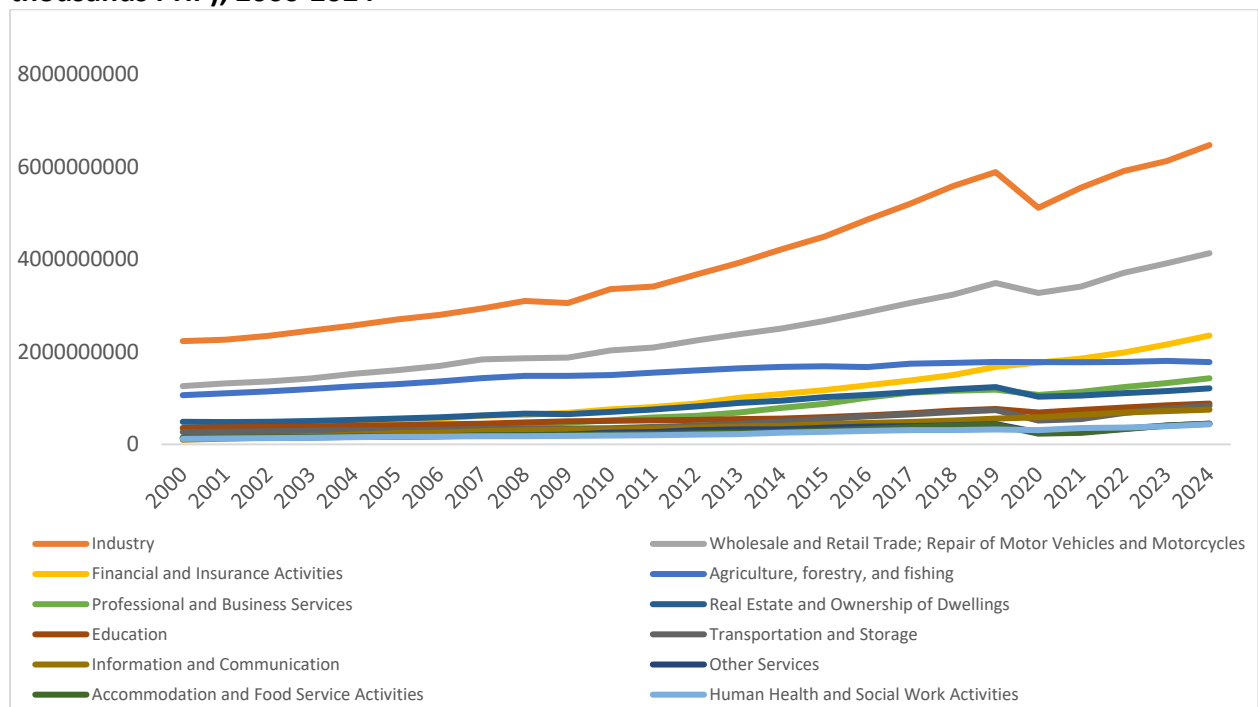
**Figure 2. Gross Domestic Product by Major Industries, 2000–2024, Growth Rates**



Source: PSA National Accounts

Figure 3 below shows that the Wholesale and Retail Trade sector has the highest GDP share among the services subsectors. It even surpassed the Agriculture sector. The Financial and Insurance Activities sector also surpassed the Agriculture sector beginning in 2021. The Professional and Business Services sector holds the third-highest GDP share among all services subsectors. The sectors with the lowest GDP shares are Other Services, Accommodation and Food Service Activities, and Human Health and Social Work Activities.

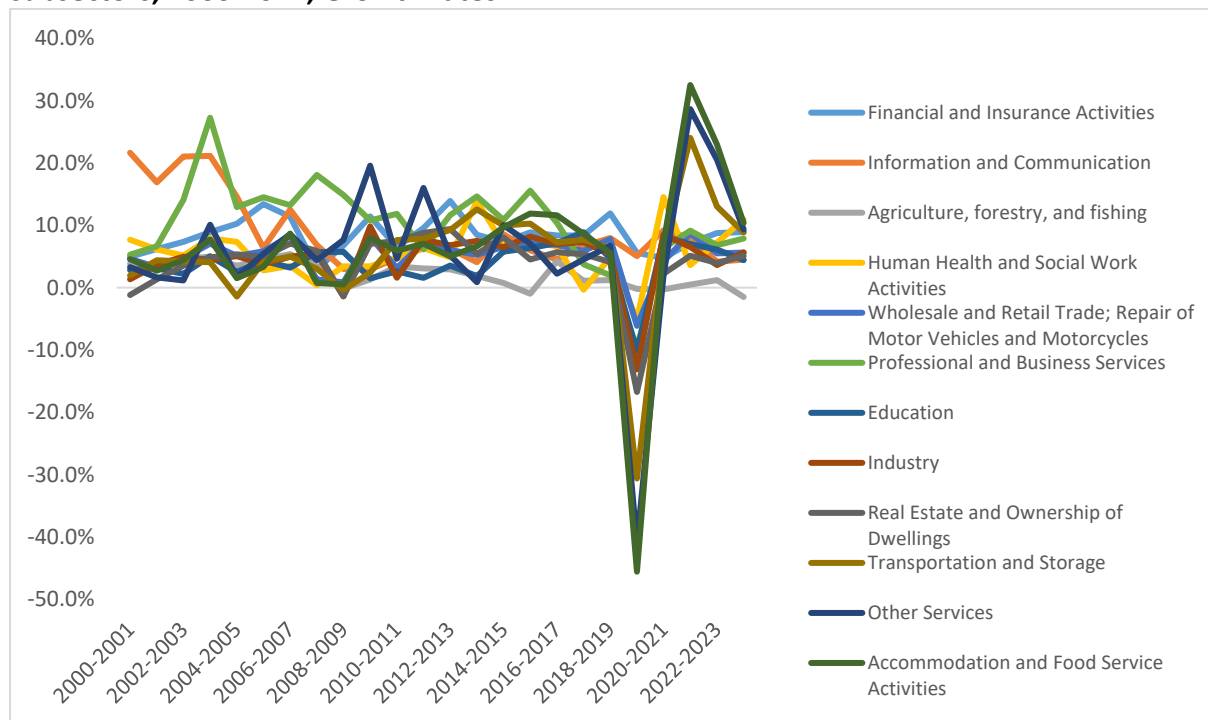
**Figure 3. GDP: Industry, Agriculture, forestry, and fishing, selected services subsectors, (in thousands PHP), 2000-2024**



Source: PSA Regional Accounts

During the pre-pandemic period, particularly in 2018, Financial and Insurance Activities, Information and Communication, and Wholesale and Retail Trade sectors had the highest growth. However, when the COVID-19 pandemic hit, the Wholesale and Retail Trade sector suffered a decline, while the other two showed continuous growth in GDP contribution. This is understandable given the lockdown and the wholesale and retail trade activities' higher degree of reliance on face-to-face transactions. On the other hand, the sectors that were the most adversely affected by the pandemic-induced lockdown – Transportation and Storage, Other Services, and Accommodation and Food Service Activities – showed the highest recovery in 2022. See Figure 4.

**Figure 4. GDP: Industry; Agriculture, forestry, and fishing; and Selected services subsectors, 2000-2024, Growth rates**

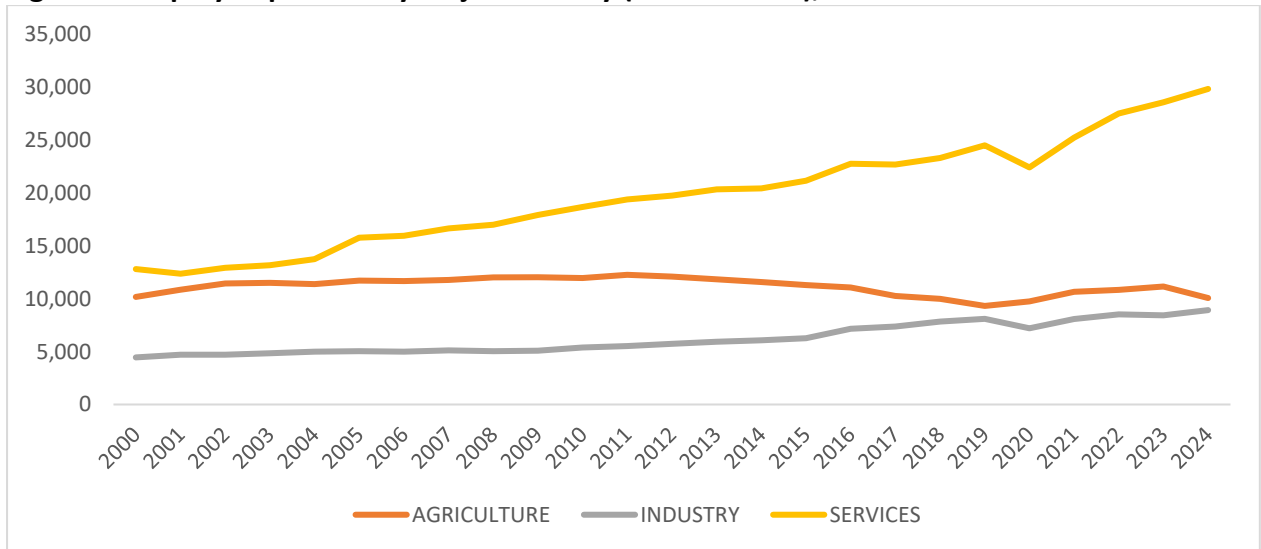


Source: PSA Regional Accounts

### 2.1.2 Employment distribution by sector

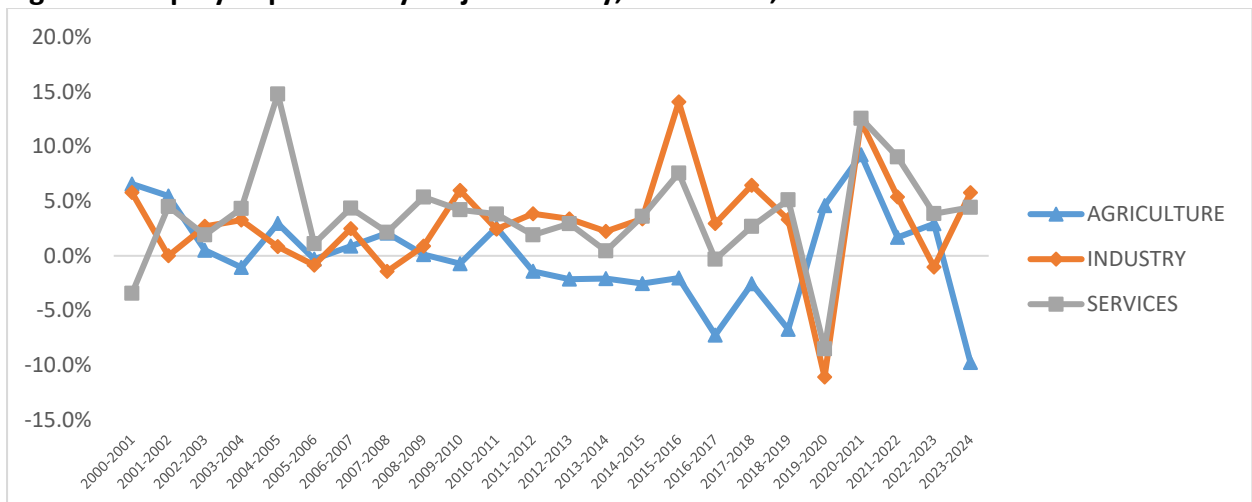
The services sector continues to absorb the largest share of employment. Employment in the Agriculture sector is gradually declining, while the Industry sector is gradually increasing (see Figure 5). The Services and Industry sectors experienced a negative growth rate, particularly during the COVID-19 pandemic, while the Agriculture sector was largely unaffected. This occurred as labor shifted out of industry and services because of the lockdown and moved to agriculture, which was the least affected. However, the Agriculture sector experienced a decline from 2011 to 2019 and had a sharp decline in 2024 (see Figure 6).

**Figure 5. Employed persons by major industry (in thousands), 2000-2024**



Source: LFS

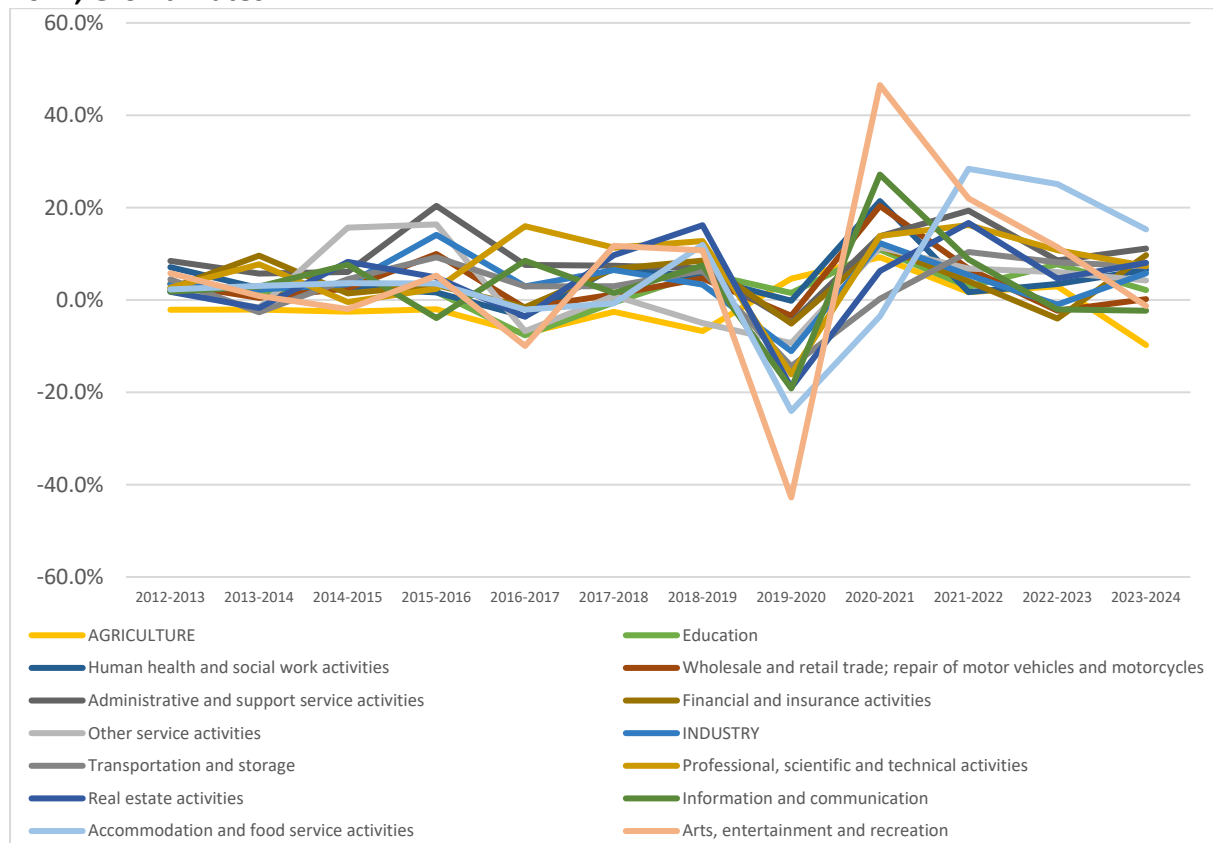
**Figure 6. Employed persons by major industry, 2000-2024, Growth rates**



Source: LFS

Among the Services subsectors, the Education sector has shown continuous positive growth since 2019 and was the only sector that maintained positive growth during the COVID-19 pandemic. Conversely, Arts, entertainment, and recreation had the sharpest decline in 2020, followed by Accommodation and food service activities, Information and communication, and Real estate activities. In terms of recovery, Arts, entertainment, and recreation and Information and communication recovered the most in 2021, while Accommodation and food service activities and Real estate activities recovered the most in 2022. See Figure 7.

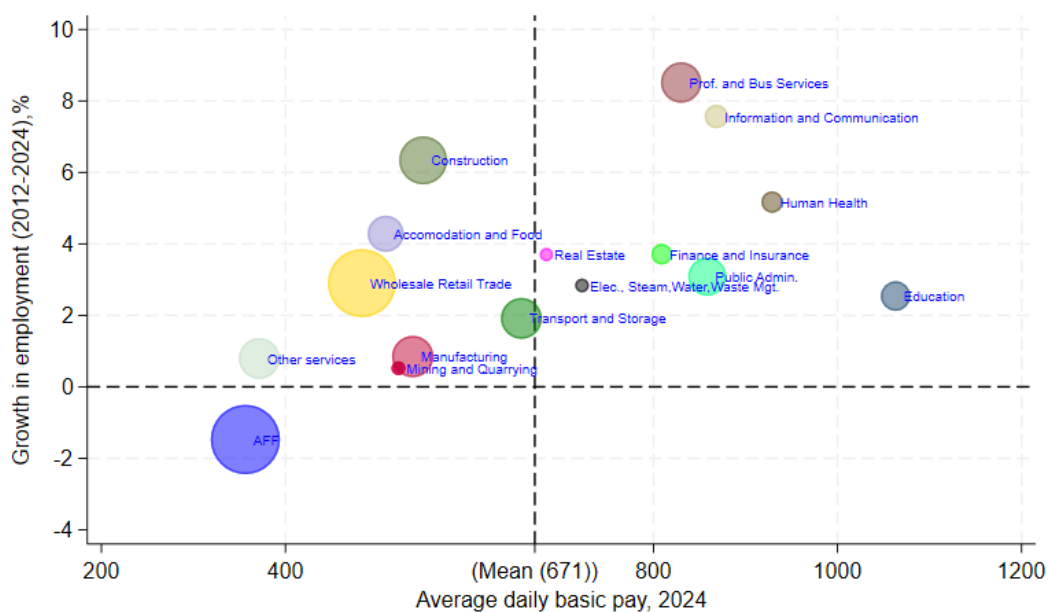
**Figure 7. Employed persons: Industry, Agriculture, and Selected services subsectors, 2000-2024, Growth rates**



Source: LFS

Figure 8 indicates that despite the high employment growth in several sectors, particularly in four of the ten services sectors (Accommodation and Food, Wholesale and Retail Trade, Transport and Storage, and Other Services), these same sectors continue to have below-average basic pay.

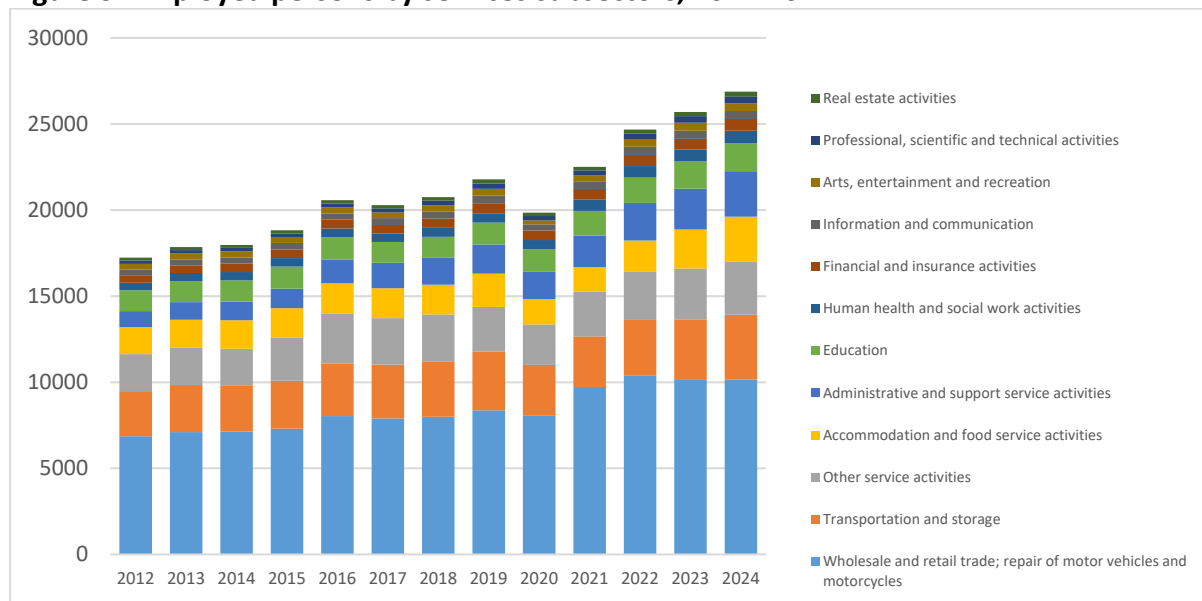
**Figure 8. Growth in employment and average daily basic pay, 2024**



Source: LFS

The number of employed persons by services subsectors is shown in Figure 9, wherein the Wholesale and Retail sector have the highest number of employed followed by Transportation and Storage, and Other Services Activities.

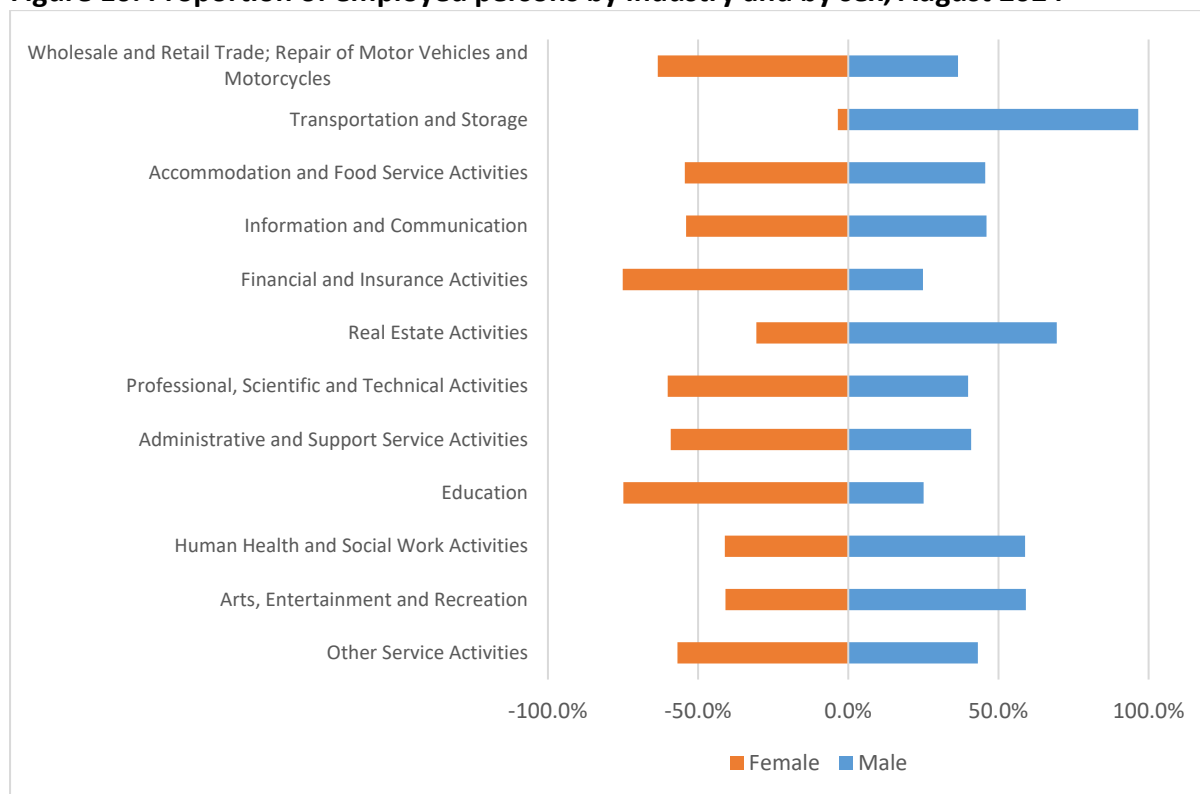
**Figure 9. Employed persons by services subsectors, 2012-2024**



Source: LFS

Using the LFS data (August 2024 round), about 78 percent of employed women are found in the Services sector, 13 percent are in the Agriculture sector, and 9 percent are in the Industry sector. The majority of employed workers are female in 8 out of 12 selected services sectors. Notably, the Financial and Insurance Activities, Education, and Wholesale and Retail Trade have the highest proportion of employed women. In contrast, the majority of employed persons in sectors Transportation and Storage are male (97%), as well as in sectors Real estate activities; Human Health and Social Work Activities; and Arts, Entertainment and Recreation (see Figure 10).

**Figure 10. Proportion of employed persons by industry and by sex, August 2024**



Source: LFS (August 2024 round)

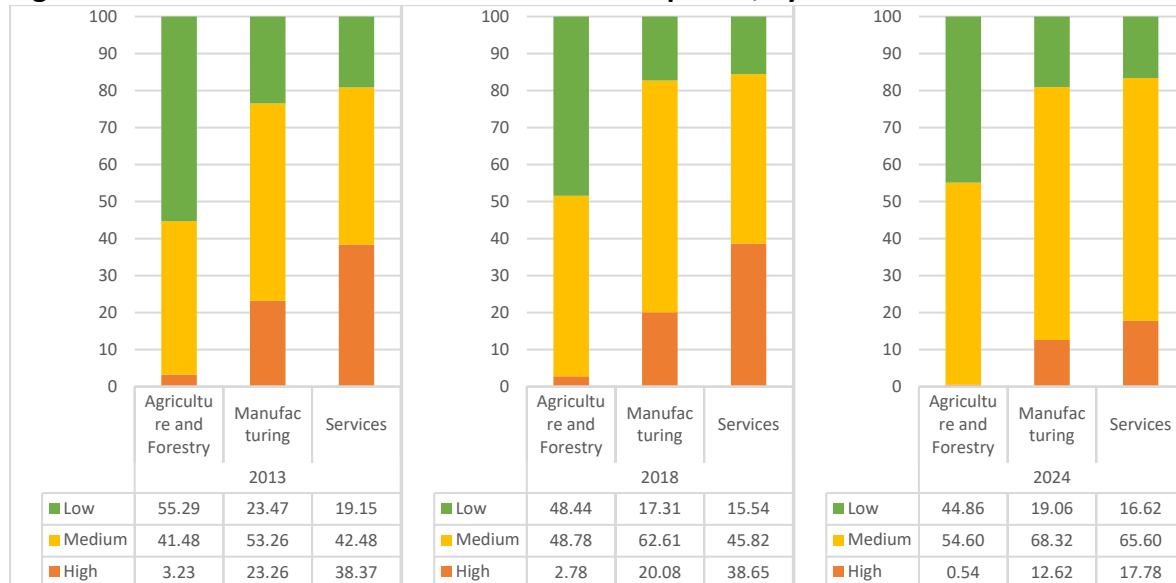
### 2.1.3 Employment distribution by occupation and skill levels

In 2013, the majority of the workers in the Agriculture sector were in low to medium-productivity occupations. The majority of those in the Industry sector are in the medium productivity occupations. The share of workers in the low and high productivity occupations in the Agriculture and Industry sectors decreased and shifted to medium productivity occupations from 2013 to 2024.

About 2 in 5 workers in the Services sector are in high-productivity occupations, while another 2 in 5 are in medium-productivity occupations. However, there has been a significant shift from high- to medium-productivity jobs over time. The share of workers in high-productivity occupations dropped sharply from 38 percent in 2013 to 18 percent in 2024, while the share in medium-productivity occupations rose substantially from 42 percent to 66 percent over the same period.

The three major industries indicate that although there is a shift of workers from low to medium productivity occupations, there is also a decline in the share in high productivity occupations, indicating an increasing concentration in medium-productivity roles rather than moving upward into higher-productivity jobs (See Figure 11).

**Figure 11. Distribution of skill level based on occupation, by sector**



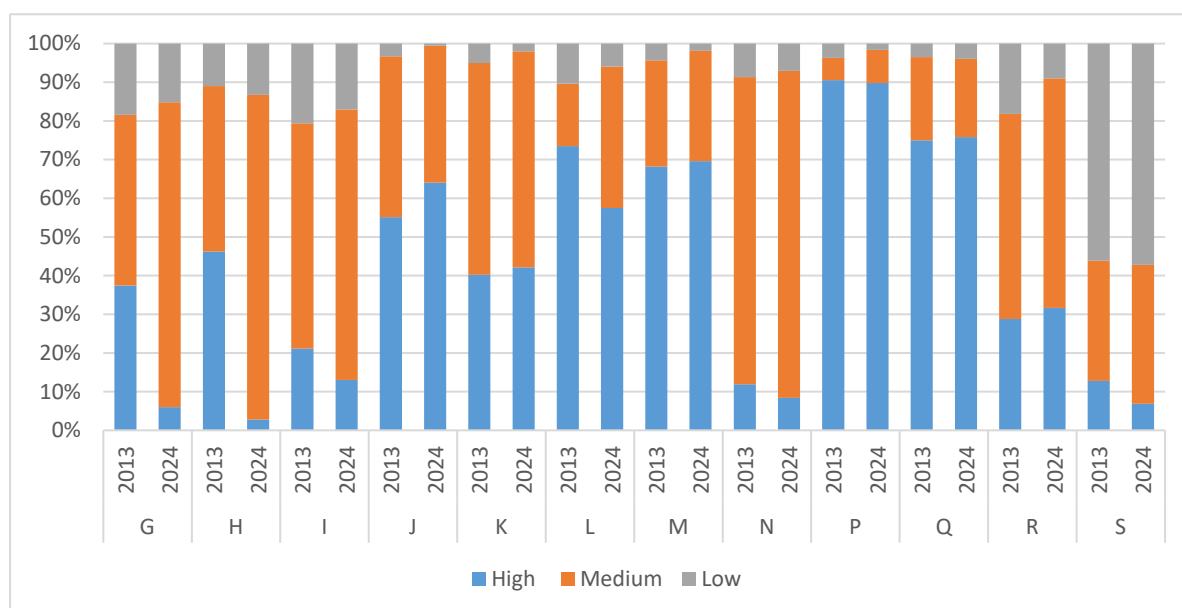
Note: High-skilled occupations (managers, professionals, technicians, and associate professionals); medium-skilled occupations (clerical support workers; service and sales workers; skilled agricultural, forestry and fishery workers; craft related trades workers; and plant and machine operators, and assemblers); and low-skilled occupations (elementary occupations) [Pechansky and Lioussis 2024].

Source: LFS

Figure 12 compares the distribution of skills based on occupation, by subsector.<sup>2</sup> Note significant changes (share of medium-skilled increased, share of high-skilled decreased) from 2013 to 2024 in Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles and Transportation and Storage. The majority of workers in sectors: Information and Communication; Real Estate Activities; Professional, Scientific and Technical Activities; Education; and Human Health and Social Work Activities are in the high productivity occupations. These sectors typically involve white-collar work.

<sup>2</sup> It is recognized that occupation is a very imperfect or crude proxy for skill. Bayudan-Dacuycuy and Dacuycuy (2021) provide a more rigorous study of skill distribution in the labor market.

**Figure 12. Distribution of skill level based on occupation, by services subsector, 2013 and 2024**



Note: High-skilled occupations (managers, professionals, technicians, and associate professionals); medium-skilled occupations (clerical support workers; service and sales workers; skilled agricultural, forestry and fishery workers; craft related trades workers; and plant and machine operators, and assemblers); and low-skilled occupations (elementary occupations) [Pechansky and Lioussis 2024];

G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities; The LFS has used the 2012 PSOC since April 2016, replacing the 1992 PSOC (formerly 1992 PSOC). Hence, the results for 2013 may not be fully comparable to 2024.

Source: LFS

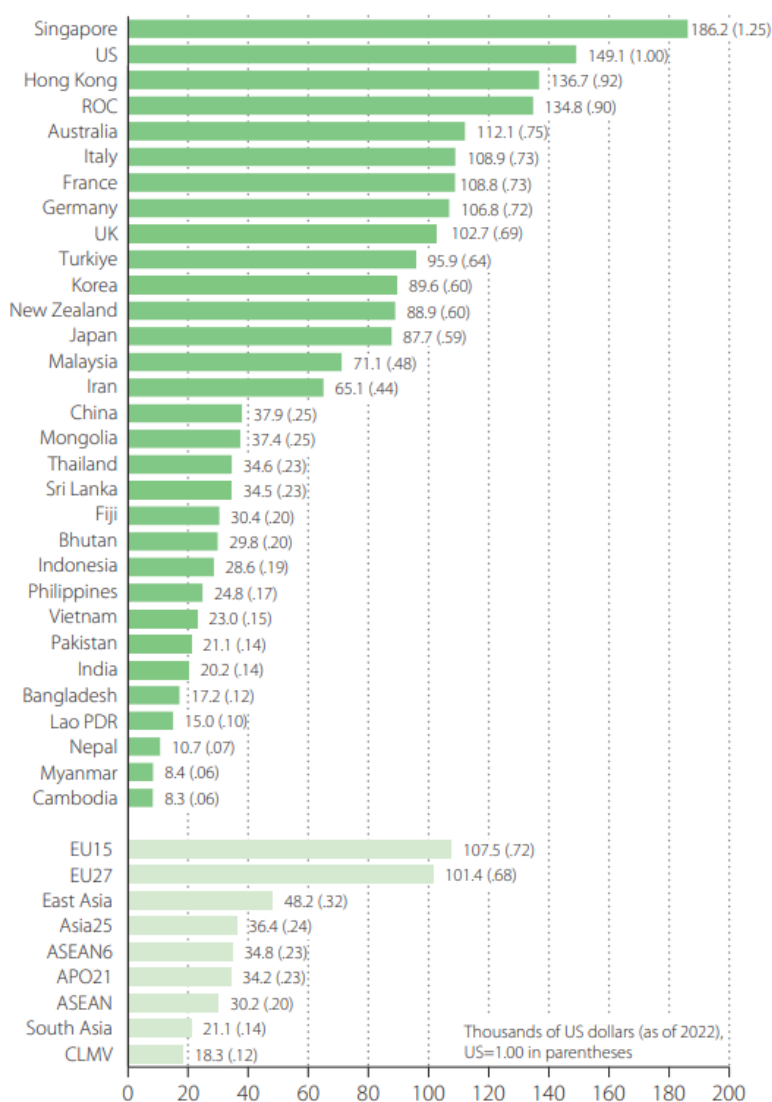
## 2.2 Labor productivity

### 2.2.1 General patterns

Productivity typically reflects the efficiency in production in terms of the amount of output obtained from a given set of inputs. A single-factor productivity measure, such as labor productivity, is usually expressed as an output-input ratio (Syverson 2011). A standard measure of labor productivity represents the total volume of output (measured in terms of Gross Domestic Product, GDP) produced per unit of labor (measured in terms of the number of employed persons or hours worked).

Nomura and Ho (2024) cross-country comparison of per-worker labor productivity levels among selected economies in 2022, computed using GDP per worker. While the ASEAN economies generally have USD30.2 thousand or 20 percent of the US labor productivity level, the Philippines recorded a USD24.8 thousand, which is only 17 percent of the US level (USD149.1 thousand). See Figure 13.

**Figure 13. Per-worker labor productivity level in 2022**



Note: GDP at constant basic prices per worker, using the 2017 PPP, the reference year 2022; Unit: Thousands of US dollars. Sources: Official national accounts in each country and APO Productivity Database 2024. Notes: The number in parentheses is the ratio to the US level.  
Source: Nomura and Ho (2024, p. 57)

Table 1 below shows labor productivity per services subsector using Gross Value Added and total employment. Financial and insurance activities, Real estate, and Information and communication sectors have the highest productivity from 2014 to 2024, while sectors Transportation and storage, Accommodation and food service activities, and Other services have the lowest labor productivity. See Tables 1 and 2. Alternative measures of labor productivity, which are measured using (1) ASPBI (establishment) data and (2) GVA<sup>3</sup> per working hour, are presented in Annex 1.

<sup>3</sup> GVA used contain both real estate and ownership dwellings

**Table 1. Labor Productivity using GVA and number of employed persons by services subsector, 2012-2024 (in thousand pesos per worker, constant 2018 prices)**

Subsector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	SD across years
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	327	335	346	365	356	387	405	417	405	351	357	390	378	29
Transportation and Storage	155	162	186	197	199	207	217	217	176	186	209	217	218	22
Accommodation and Food Service Activities	154	158	160	173	187	213	233	220	158	175	182	177	177	25
Information and Communication	1076	1122	1143	1146	1263	1219	1279	1286	1674	1437	1426	1335	1744	205
Financial and Insurance Activities	2021	2246	2224	2355	2483	2731	2772	2863	3185	2992	3079	3392	4085	564
Real Estate	2064	2428	2755	2818	2869	3244	3198	2912	2461	2397	2245	2204	1861	429
Professional and Business Services	548	570	610	650	639	649	624	590	572	534	490	452	474	67
Education	440	447	444	460	481	558	611	605	535	522	544	533	517	58
Human Health and Social Work Activities	483	473	526	547	578	639	596	596	566	534	542	527	519	46
Other Services	124	128	129	117	118	130	133	147	100	89	106	124	123	15
<b>Standard deviation across subsectors</b>	740	857	920	952	987	1101	1096	1053	1080	1017	1010	1076	1247	

Note: SD = standard deviation; Professional and Business Services includes Professional, Scientific and Technical Activities and Administrative and support service activities; Other services includes Arts, Entertainment and Recreation and Other Services; Real estate excludes ownership of dwellings. GVA used for the Real estate in 2024 is estimated by adding the GVA of quarter 1 to quarter 4 from the PSA National Accounts.

Sources: PSA (GRDP data series; Philippine Statistics Yearbook 2014, 2017, 2020, 2023; Labor Force Survey); For 2012, 2013, and 2023, the number of employed persons is based on the LFS October round. For 2024, the number of employed persons is based on the LFS August round.

**Table 2. Labor productivity levels by subsector (Index, Real Estate = 100)**

Subsector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	16	14	13	13	12	12	13	14	16	15	16	18	20
Transportation and Storage	8	7	7	7	7	6	7	7	7	8	9	10	12
Accommodation and Food Service Activities	7	7	6	6	7	7	7	8	6	7	8	8	10
Information and Communication	52	46	41	41	44	38	40	44	68	60	64	61	94
Financial and Insurance Activities	98	93	81	84	87	84	87	98	129	125	137	154	219
Real Estate	100	100	100	100	100	100	100	100	100	100	100	100	100
Professional and Business Services	27	23	22	23	22	20	20	20	23	22	22	20	25
Education	21	18	16	16	17	17	19	21	22	22	24	24	28
Human Health and Social Work Activities	23	19	19	19	20	20	19	20	23	22	24	24	28
Other Services	6	5	5	4	4	4	4	5	4	4	5	6	7

Note: Professional and Business Services includes Professional, Scientific and Technical Activities and Administrative and support service activities; Other services includes Arts, Entertainment and Recreation and Other Services.

Sources: PSA (GRDP data series; Philippine Statistics Yearbook 2014, 2017, 2020, 2023; Labor Force Survey)

The labor productivity of Financial and Insurance Activities doubled from 2012 to 2024 (Table 3). Most subsectors experienced an increase except for Real Estate, Professional Business Services, and Other Services, which declined in 2024 compared to 2012 levels.

**Table 3. Labor productivity levels by subsector (Index, 2012 = 100)**

Subsector	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	100	102	106	112	109	118	124	127	124	107	109	119	116
Transportation and Storage	100	105	120	127	128	134	140	140	113	120	135	140	141
Accommodation and Food Service Activities	100	103	104	112	122	139	152	143	103	114	118	115	115
Information and Communication	100	104	106	107	117	113	119	120	156	134	133	124	162
Financial and Insurance Activities	100	111	110	117	123	135	137	142	158	148	152	168	202
Real Estate	100	118	133	137	139	157	155	141	119	116	109	107	90
Professional and Business Services	100	104	111	119	117	118	114	108	104	97	89	82	86
Education	100	101	101	104	109	127	139	137	121	119	123	121	117
Human Health and Social Work Activities	100	98	109	113	120	132	123	123	117	111	112	109	107
Other Services	100	103	104	94	95	105	107	118	81	72	85	99	99

Sources: PSA (GRDP data series, Philippine Statistics Yearbook 2017, 2020, 2023); Professional and Business Services includes Professional, Scientific and Technical Activities; N = Administrative and support service activities; Other services includes Arts, Entertainment and Recreation and Other Services.

Among all sectors, the **regional disparities** in productivity are most pronounced in the high productivity sectors - Real estate activities, Financial and insurance activities, and Information and communication sectors. In contrast, Transport and storage and Other services exhibit the least variability in productivity levels (see Table 4).

**Table 4. Standard deviation of regional level productivity by industry from 2012 to 2024 (in thousand pesos, constant 2018 prices)**

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	186	187	195	205	204	232	254	258	240	219	231	239	215
H	37	46	65	66	56	52	56	74	54	62	80	82	92
I	98	89	99	97	132	143	146	145	110	122	136	164	148
J	1401	1186	773	826	1047	2217	5588	1943	839	894	1438	1044	2139
K	1043	1294	1182	1224	1320	1645	1547	1483	1935	1902	1982	1256	1741
L	12120	7403	5692	7046	5935	22455	20589	9497	6422	5616	41249	4256	2786
M & N	255	250	244	271	280	295	288	256	261	235	209	172	194
P	198	199	195	195	156	170	204	217	160	110	126	97	198
Q	487	207	235	220	195	281	208	364	200	220	234	295	632
R & S	88	90	88	385	64	69	76	79	57	50	58	70	73

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific and Technical Activities; N =

Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Sources: Authors' computations based on PSA (GRDP data series; Philippine Statistics Yearbook 2014, 2017, 2020, 2023; Labor Force Survey)

See Annex 2 for labor productivity profiles by region.

## 2.2.2 Distribution of occupation, by level of labor productivity

Table 5 speaks to the skill composition in the various services subsectors, which is an important determinant of labor productivity.<sup>4</sup> The highlighted figures indicate substantial shares of particular occupations in particular industries in the service sector. The services subsectors were grouped into high, medium, and low productivity sectors using the previous computation of labor productivity.

From 2013 to 2024, the share of low-skilled occupations declined, except in the medium productivity sector, where it remained the same. The share of workers in medium-skilled occupations generally increased across low, medium, and high productivity sectors. High-skilled occupations declined in low and medium-productivity sectors, while they increased in high-productivity sectors. This growth was due to the rise in technicians and associate professionals in high productivity sectors, as well as an increase in professionals in the Information and Communication sector.

**Table 5. Share of workers in low, medium, and high productivity sectors, by occupational skills level, 2013, 2018, and 2024**

		Occupation				
			Highly skilled	Medium-skilled	Low-skilled	Total
Se	Low Productivity	2013	34%	43%	23%	100%
		2018	35%	46%	19%	100%
		2024	7%	72%	21%	100%
	Medium Productivity	2013	59%	36%	5%	100%
		2018	51%	43%	5%	100%
		2024	46%	49%	5%	100%
	High Productivity	2013	50%	44%	5%	100%
		2018	54%	43%	3%	100%
		2024	52%	46%	2%	100%

Note: **Low productivity sectors:** Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles, Transportation and Storage, Accommodation and Food Service Activities and Other Services; **Medium productivity sectors:** Professional and Business Services, Education, and Human Health and Social Work Activities; **High productivity sectors:** Financial and Insurance Activities, Real Estate, and Information and Communication; The LFS has used the 2012 PSOC since April 2016, replacing the 1992 PSOC (formerly 1992 PSOC)<sup>5</sup>. Hence, the results for 2013 may not be fully comparable to those of 2018 and 2024.

Source: Authors' computation based on LFS

<sup>4</sup> High-skilled occupations (managers, professionals, technicians, and associate professionals); medium-skilled occupations (clerical support workers; service and sales workers; skilled agricultural, forestry and fishery workers; craft related trades workers; and plant and machine operators, and assemblers); and low-skilled occupations (elementary occupations) [Pechansky and Lioussis 2024]. It is recognized that occupation to be a very imperfect proxy for skill. Bayudan-Dacuycuy and Dacuycuy (2021) provide a more rigorous study of skill distribution in the labor market.

<sup>5</sup> <https://psa.gov.ph/statistics/labor-force-survey/press-release/node/57724> accessed on November 18, 2025

In low productivity sectors, there was an increase in service and sales workers and plant and machine operators and assemblers, particularly from 2018 to 2024, while the share of elementary occupations slightly decreased from 23 percent in 2013 to 21 percent in 2024. A notable decline in the share of managers was also observed from 2018 to 2024.

For medium productivity sectors, the period from 2013 to 2024 saw a decline in the share of managers and professionals but an increase in clerical support workers. There was also a slight decline in service and sales workers from 2018 to 2024.

For high productivity sectors, there was a decline in managers and an increase in service and sales workers from 2013 to 2024. The share of professionals increased, particularly from 2018 to 2024.

See Annex 3 for details.

### 2.3 *Decomposition of labor productivity growth*

Labor productivity growth derives from two sources: **intrasectoral** (or within the sector), which happens because of technological change, improved production processes, or efficiencies resulting from exposure to increased competition, and **intersectoral**, which results from the movement of labor from low- to high-productivity sectors. The latter is also referred to as structural change. In the Philippines, labor productivity growth has mainly been due to intrasectoral productivity and much less to structural change. (World Bank, 2018; Esguerra and Jandoc, 2023). Because of the lack of a robust manufacturing sector to absorb the labor moving out of agriculture, the labor force has found employment in relatively low-productivity, low-wage jobs in the services sector. (See also *Trabaho Para sa Bayan Plan 2025-2034*).

Previous studies – and there seem to be only a few – of sources of labor productivity growth have stopped at the macro level and have not gone deeper to the sectoral or industry level. However, they offer a good starting point for further investigation. For the present study, the paper by Helble, Trinh, and Trang (2019) provides a good reference. The authors employ a decomposition approach using the Asian Productivity Organization (APO) and the World Input-Output data to show that the services sector makes the largest contribution to labor productivity in most Asian economies. The Philippines is included among the economies studied, where more than half of the overall productivity growth was due to services. As expected for many of these economies, a major reallocation of labor from agriculture directly to services was found. The paper also found high-skilled workers have contributed the most to overall labor productivity growth in developing Asia, especially in services.

In analyzing the patterns of labor productivity in the services sector, the present study draws from MacMillan and Rodrik's (2011) approach, which breaks down labor productivity growth into an "intrasectoral" or within-sector effect and an "intersectoral" or between-sector effect. The first one refers to the industry's contribution to labor productivity growth; the second is due to the change in the economy's industrial structure as labor moves from a low-productivity to a high-productivity sector. Tang and Wang (2004) and Tang (2015) basically follow the same approach in decomposing labor productivity growth into a "pure productivity effect" and a "shift effect."

## Decomposition analysis using MacMillan, Rodrik, and Sepulveda (2016)

In MacMillan, Rodrik, and Sepulveda (MRS 2016) growth of labor productivity is:

$$\Delta P = \sum_{i=1}^n \theta_{i,t-k} \Delta p_{i,t} + \sum_{i=1}^n \Delta \theta_{i,t} p_{i,t-k} + \sum_{i=1}^n \Delta \theta_{i,t} \Delta p_{i,t},$$

where the first term on the RHS is the weighted sum of the changes in productivity  $p$  in sector/industry  $i$  between time  $t$  and  $t-k$ , and the weights are the employment shares  $\theta$  of the sector/industry in the initial period. This term captures **within-sector** productivity changes. The second term is the weighted sum of changes in the sector/industry's employment shares, where the weights are the labor productivities of the sectors/industries in the initial period. This captures **between-sector** productivity changes. The third term, an interaction term (covariance), accounts for simultaneous changes in employment shares and labor productivities, or **cross-sector** productivity changes, during the period under consideration. This term may be positive or negative.

MRS (2016) combines the second and third terms above and writes, as in MacMillan and Rodrik (2011),

$$\Delta P = \sum_{i=1}^n \theta_{i,t-k} \Delta p_{i,t} + \sum_{i=1}^n \Delta \theta_{i,t} p_{i,t},$$

where the second term is referred to as “structural change”. This term captures the change in labor productivity arising from the reallocation of labor from less productive to more productive sectors. This method is used in the country papers included in MRS (2016). Esguerra and Jandoc (2023) also used this method.

According to Nomura and Ho (2024), in terms of labor productivity growth from 2010 to 2022, the Philippine economy recorded a 2.7 percentage point labor productivity growth, where Services contributed the most (1.2 percentage points), followed by the Industry sector (0.9 percentage points), and Agriculture sector (0.6 percentage points).

Similar results are obtained by computing labor productivity growth from 2012 to 2024, where the productivity growth in the services sector is the highest among the three major industries and is driven by the intersectoral effect. In contrast, the Industry sector and the Agriculture sector are driven more by the intrasectoral effect. The Agriculture sector is the only major industry with a negative intersectoral effect, as labor moved out of this sector, causing its share of employment to decline.

For 2012-2024, the aggregate labor productivity growth came mainly from intrasectoral growth (69.6%). The largest contributor to labor productivity growth was services (76%), followed by industry (30%). Agriculture registered -6 percent. Within services, the largest contributors were wholesale and retail trade and financial and insurance services, followed by professional and business services.

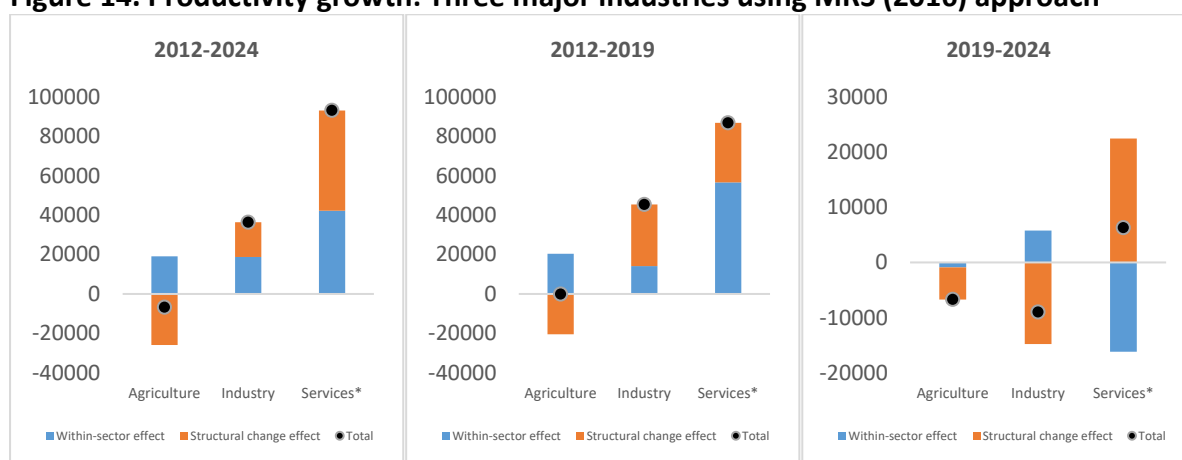
When the period is broken down between pre- and post-pandemic, there is a noticeable decline in aggregate productivity growth in the latter period. In 2012-2019, the within-sector component was 65 percent, and the between-sector component was 35 percent. In 2019-2024,

when growth in total labor productivity was negative, both components were also negative, with the intersectoral component contributing 99 percent to the decline.

For 2012-2019, services contributed 66 percent and industry 34 percent, with agriculture contributing nil. Within services, the largest contributions came from wholesale and retail trade, followed by financial and insurance services.

For 2019-2024, when aggregate labor productivity growth declined, agriculture and industry contributed to the decline by 71 percent and 95 percent, respectively, which could not be offset by the gain of 66 percent in services. Within services, the largest contributors to labor productivity growth were financial and insurance activities, information and communication, and human health and social work. See Figure 14.

**Figure 14. Productivity growth: Three major industries using MRS (2016) approach**



Source: Authors' computation based on PSA Regional Accounts and LFS

Within the Services sector, from 2012 to 2024, the Wholesale and Retail sector showed the highest productivity growth (primarily driven by the intersectoral effect), followed by the Financial and Insurance Activities (driven by the intrasectoral effect) and Professional and Business Services (also driven by the positive intersectoral effect).

In the period 2012-2019, the Wholesale and Retail sector showed the highest productivity growth (primarily driven by the intrasectoral effect), followed by the Financial and Insurance Activities (driven by the within-sector effect) and Professional and Business Services (driven by the between-sector effect). For the period 2019-2024, there is a pronounced decline in productivity growth among all services subsectors compared to the period 2012-2019. The Financial and Insurance Activities, despite its negative intersectoral effect dragging its overall productivity growth, recorded a relatively high productivity growth compared to other services sectors, driven by the intrasectoral effect.

**Figure 15. Productivity growth: Selected services subsectors using MRS (2016) approach**



Source: Authors' computation based on PSA Regional Accounts and LFS

### Decomposition using Helble, Long, and Le (2019)

Another approach used by Helble, Long, and Le (HLL 2019) is due to Tang and Wang (2004) and Zhao and Tang (2015).

$$\Delta X = \sum_i w_{is} \Delta x_i + \sum_i w_{is} [(1 + \Delta x_i) \Delta s_i],$$

where  $\Delta X$  is aggregate labor productivity growth,  $w_{is}$  is the nominal share in GDP of sector/industry  $i$ ,  $\Delta x_i$  is the growth in labor productivity of sector/industry  $i$  between year  $t$  and  $t - 1$ , and  $\Delta s_i$  is the change in the relative size of sector/industry  $i$  between  $t$  and  $t-1$ .

The preceding expression may also be rewritten as

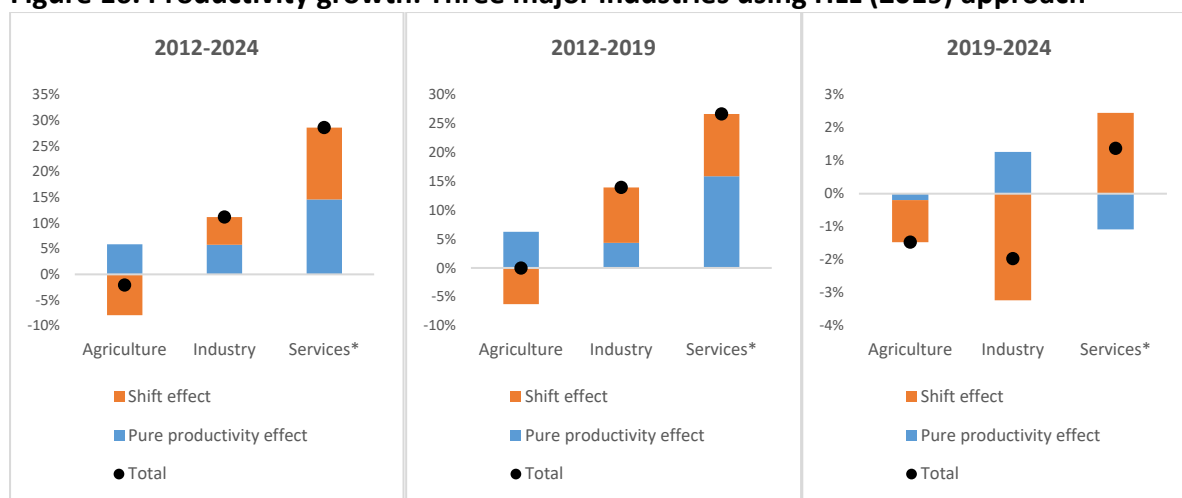
$$\Delta X = \sum_i w_{is} \Delta x_i + \sum_i w_{is} \Delta s_i + \sum_i w_{is} \Delta x_i \Delta s_i.$$

HLL (2019) refer to the first term on the RHS as the ‘pure productivity effect’ and the sum of the second and third terms as the ‘shift effect’.

From 2012 to 2024, the productivity growth in the services sector is highest among the three major industries and is driven by the shift effect. In contrast, the labor productivity growth in the Industry sector and the Agriculture sector has been driven more by the pure productivity effect. The Agriculture sector is the only major industry with a negative shift effect, indicating that labor moved out of the sector and into the other two sectors.

Breaking down the labor productivity growth into shorter periods, 2012-2019 and 2019-2024, the labor productivity growth of all the major industries slowed down in 2019-2024 compared to 2012-2019, with the Industry and Agriculture sectors even recording a negative labor productivity growth. In 2012-2019, labor productivity growth in the Services sector was mainly driven by the pure productivity effect, while it was driven by the shift effect in 2019-2024. See Figure 16.

**Figure 16. Productivity growth: Three major industries using HLL (2019) approach**



Source: Authors’ computation based on PSA Regional Accounts and LFS

Within the Services sector, from 2012 to 2024, the Wholesale and Retail sector (primarily driven by the shift effect) and the Financial and Insurance Activities (driven by the pure productivity effect) showed the highest productivity growth, followed by the Professional and Business Services (driven by the positive shift effect overpowering a negative pure productivity effect).

In terms of the period 2012-2019, the Wholesale and Retail sector showed the highest productivity growth (primarily driven by the pure productivity effect), followed by the Financial and Insurance Activities (driven by the pure productivity effect) and Professional and Business Services (mostly driven by the shift effect).

For the period 2019-2024, there is a pronounced decline in productivity growth among all services subsectors compared to the period 2012-2019. The Financial and Insurance Activities, despite its negative shift effect dragging its overall productivity growth, recorded a relatively high productivity growth compared to other services sectors, driven by the pure productivity effect. See Figure 17.

**Figure 17. Productivity growth: Selected services subsectors using HLL (2019) approach**



Source: Authors' computation based on PSA Regional Accounts and LFS

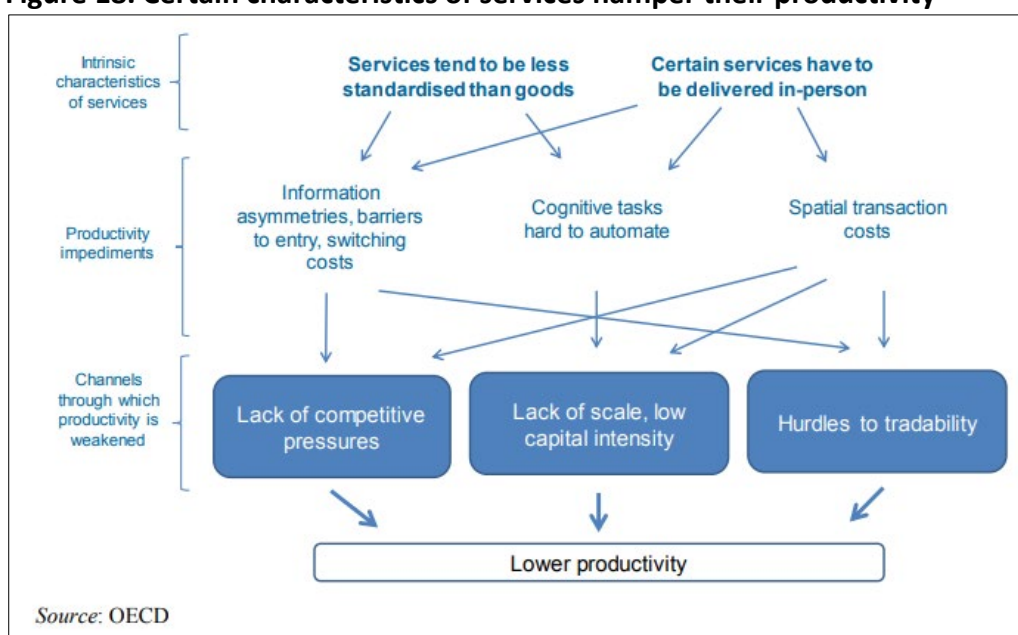
### 3 Understanding labor productivity in the service sector

#### 3.1 Characteristics of services

Productivity is typically lower in the services sector compared to manufacturing. Hence, the shift towards services can decrease aggregate productivity growth. A basic characteristic of services that limits their productivity is their **intangibility**. Compared to goods, services are

less standardized and usually require delivery in person. These result in higher transaction costs, information asymmetries, higher switching costs, and, for certain services, additional spatial transaction costs. As such, these factors contribute to a lack of competitive pressure, limited scalability, and lower capital intensity within the sector. Regulatory constraints also exacerbate these challenges by reducing tradability both within and across borders, restricting labor mobility, and creating additional barriers to entry. It is more challenging to increase productivity in the services sector than in manufacturing because firms in the services sector tend to be small, are less exposed to the international market, and gain fewer benefits from technological diffusion from other economies (Sorbe et al. 2018). See Figure 18. The presence of various forms of market failures (e.g., information asymmetries, positive and negative externalities, and public good characteristics) means that the provision of services tends to be highly regulated as well, both at the national and local government levels.

**Figure 18. Certain characteristics of services hamper their productivity**



Source: Sorbe et al. (2018, p. 12)

Services are a widely diverse sector, however. The **heterogeneity** of services means that the different service activities vary significantly in characteristics, such as skills and capital intensity and productivity levels. They also experience varying intensities of productivity impediments. One aspect is the intensity of physical interactions needed between service providers and consumers. Services requiring face-to-face interactions are more affected by spatial transaction costs, which hinder scalability and capital deepening. They tend to involve routine tasks that are not automated and are performed by low- or middle-skilled workers. In contrast, knowledge-intensive services exhibit higher productivity levels compared to less knowledge-intensive sectors. These services tend to have higher capital and R&D intensity, greater allocative efficiency, and a stronger potential for tradability. They also possess a greater capacity to scale up, automate routine tasks, and promote worker specialization, often employing a larger proportion of high-skilled workers (Sorbe et al. 2018; World Bank 2020). Exceptions to this trend include the trade, professional, and finance sectors, particularly in OECD countries. The trade sector (wholesale and retail) experiences high productivity despite being highly localized and less knowledge-intensive due to the use of technology transforming the supply chain and improving managerial and operational processes. In contrast, professional services, despite being knowledge-intensive, exhibit lower or stagnant productivity due to

regulatory barriers, such as entry restrictions that reduce competition and gaps in regulatory frameworks that limit tradability. The financial sector's high productivity may either be genuine (e.g., resulting from the use of digital technologies and reduced operational costs) or overstated, since measuring value added in this sector is more difficult compared to others (Sorbe et al. 2018).

Moreover, the services sector has a **varying share of intermediate and final goods production**. For instance, transportation, communication, financial, and business services have a high share of intermediate outputs, indirectly impacting the productivity growth of other sectors. Knowledge-intensive services also have indirect positive effects on other sectors. For example, ICT services can boost the productivity of low-productivity services, financial services contribute to overall economic growth up to a certain point, and professional services enhance the productivity of firms that rely on them as inputs (Wölfl 2003; Sorbe et al. 2018).

Jobs in certain service industries are **multifunctional** (Van Biema and Greenwald 1997). For example, the range of responsibilities of workers in the fast-food industry often includes production, retail service, delivery, customer service, and payment processing. It also may involve managing inventory and store upkeep in some cases. With these tasks combined, measuring, monitoring, and improving an individual worker's performance is not simple. Indeed, for a number of jobs in the low productivity services, individual tasks are not complex, but workers engage in multiple tasks (**multitasking**). In the land transportation services sector, jeepney drivers experience high mental workload, in terms of mental demand, physical demand, and frustration with engaging in spontaneous and simultaneous tasks such as maneuvering the jeepney, collecting fares, resolving conflicts with passengers, doing mathematical computation, and loading and unloading passengers (Aquino and Seva 2017). The retail sector prefers workers who are multi-skilled and capable of performing different activities rather than specialized workers. This flexibility helps reduce problems of overstaffing and understaffing, and allows firms to better manage demand seasonality, uncertainty, and employee absenteeism (Henao et al. 2015). Another difference with manufacturing is that **services output cannot be stored**. Thus, workforce planning is much more important in services compared to manufacturing when it comes to productivity improvement (Van Biema and Greenwald 1997).

Different service sectors exhibit varying **work patterns**. For instance, in the US and OECD countries, workers in the Finance and Insurance sectors have a more stable work schedule and tend to provide full-time jobs. In contrast, workers in the accommodation and food and arts and leisure sectors are more likely to have flexible work arrangements to accommodate customer demand (e.g., peak hours/seasons). Consequently, the **risk of underemployment** is higher, especially in the demand-driven services sector, which has lower unionization rates, a higher share of variability in working hours, and flexibility in work arrangements. This especially affects young workers, women, less-educated people, and low-income earners. Underemployed workers are also more likely to have lower wages and routinary and less complex tasks (MacDonald 2019).

The hospitality sector often reflects a spectrum of **labor conditions**, where work that is generally fair can sometimes become more exploitative, with long working hours, irregular shifts, job insecurity, low wages, and limited opportunities for career advancement, which may potentially affect the well-being and dignity of hospitality employees (Giousmpasoglou 2024). Workers in the low to medium skills occupations, particularly workers in the craft, machine operation, and elementary occupations, face the highest work demands. Across countries, high

work intensity is common in manufacturing, construction, and transportation, while in the EU, commerce, hospitality, and healthcare sectors also report significant pressure. Excessive workload—mental, physical, or multitasked—can reduce task effectiveness, quality, and coordination, making high work intensity generally a negative factor for job quality (Aleksynska 2019).

### 3.2 *Factors that can improve productivity in the services sector*

In general, capital deepening and improvements in total factor productivity contribute to labor productivity growth. The former can be in the form of information and communication technology (ICT) capital or other types of capital, while the latter can be attributed to factors other than increases in inputs, such as productivity gains within the firm, improvement in internal capabilities, such as managerial and workforce skills and capacity to adapt to innovation and technology (Cusolito and Maloney 2018).

This section discusses key drivers to help overcome the impediments to productivity presented previously. The first four focus on factors within the control of the firm, which is recognized as “the main creator of value added and productivity growth in the economy” (Ibid, p.27). These internal drivers affect the collective human capital of the firm, which enhances its internal capabilities and contributes to firm upgrading. They are also relevant to the productivity levers identified in management literature discussed below. The final set of productivity drivers is outside the control of the firm but affects its operating environment, creating incentives and disincentives to upgrade and improve productivity.

#### 3.2.1 Management quality and practices

At the firm level, how various factors of production are put to use is a question of management function (Van Biema and Greenwald 1997). Service firms can be more challenging to manage compared to those in manufacturing, given the different types of service activities. These activities include (a) **transaction-processing activities** such as data processing, which, with appropriate technology, can be effectively organized into large, highly automated work environments; (b) **distribution activities** (wholesale and retail) that involve local, interconnected operations with significant economies of scale, (c) **dispersed manufacturing-like activities** (such as dry cleaning and fast-food production line); and (d) **higher-level activities** that involve direct human interaction and superior analytical capabilities (such as medical care, investment banking, and law). Depending on the function, management can consider various best practices, techniques, and tools for continuous improvements resulting in productivity gains (Van Biema and Greenwald 1997).

Service productivity is not just a function of internal efficiency, however, but of external effectiveness as well (Maroto-Sanchez 2012, Hofmeister et al 2024a). While the former refers to how efficiently firms produce and supply services to customers, the latter depends on the value placed by customers on the service provided, which may depend on various factors such as quality, uniqueness, and convenience (Tolentini 2004 as cited in Maroto-Sanchez 2012). According to Martin (2015), productivity is essentially determined by two key questions: (1) how much it costs to produce a given product or service, and (2) how much it can charge the customer for the product or service it provides. Thus, while the intangibility of services could impede productivity as it makes it difficult to standardize outputs, this property also provides opportunities to raise value added through product differentiation. Since the productivity of the firm depends on efficiency and effectiveness, improvements in systems that a) support

employees, particularly during interactions with customers, b) enhance the service production process, and c) increase service quality are all important productivity levers in the services sector (Hofmeister et al 2024a). In order to achieve high service productivity, successful firms must be able to combine cost efficiency with service quality, and management practices are crucial for attaining these twin objectives. Management plays a direct role in cultivating the necessary workforce and organizational culture to support a productive service model. It is responsible for the design of the organizational processes and structure to achieve efficiency and customer orientation. Managers apply steering models to improve processes and achieve operational excellence. For example, techniques such as Total Quality Management (TQM) or the Balanced Scorecard are used to break up organizational silos and implement a productivity-driven strategy. In addition, management guides the firm's approach to technology adoption and innovation, ensuring it drives differentiation and competitive advantage (Hofmeister et al 2024b; Cirera et al 2020).

Benson and Shaw (2025) explain that managers exhibit characteristics of both firms and workers. For example, like a firm, a manager evaluates the quality of its workers. Like a worker, however, a manager will also have their own contribution to output or marginal product. They further distinguish between people managers whose tasks involve hiring, retaining, and training vs. project managers responsible for planning, coordinating, and allocating resources. Given their functions, managers can improve productivity by choosing the appropriate production technology, adopting the right practices for motivating workers, or hiring and training employees. As research studies confirm, managers not only create value for firms but also help account for variations in the productivity of firms.

Since the quality of the management affects the execution of business operations, personnel policies, and long-term planning, among others, managerial capabilities are necessary elements of a productivity strategy. According to de Nicola et al. (2025), variations in management quality significantly influence productivity differences across countries, but evidence shows that management capabilities can be strengthened. A study in Colombia demonstrated that companies receiving management consulting improved their management practices and expanded employment (Iacovone et al. 2022, as cited in de Nicola et al. 2025). Whether delivered through intensive one-on-one support or more cost-effective group sessions, both approaches generated similar gains of about 8 to 10 percentage points in management quality, as well as increases in sales, profits, and labor productivity. This aligns with the view that enhancing management skills—among both new graduates and existing professionals—is a key component of developing human capital (de Nicola et al. 2025).

### 3.2.2 Business innovation

As mentioned earlier, services are intangible, non-storable (except for digitized services in the form of knowledge-capturing products), and heterogeneous. They also possess other characteristics such as simultaneity of production and consumption, interactivity, and co-production (between service suppliers and customers), which influence how firms innovate and the types of innovation produced (Taques et al. 2021). Thus, innovation patterns can vary across different subsectors, within a subsector, and even in service activities that are very similar (Tether 2003, Vence and Trigo 2009, Hipp and Grupp 2005, and Toivonen and Tuominen 2009).

Business innovation refers to “a new or improved product or business process (or combination thereof) that differs significantly from the firm's previous products or business processes and

that has been introduced on the market or brought into use by the firm” (OECD and Eurostat 2018, p.68). Using the 2021 Philippine Survey of Innovation Activities of Establishments, which looks at four types of innovation at the firm level - product, process, organizational, and marketing innovation,<sup>6</sup> Serafica and Oren (*forthcoming*) found that organizational innovation was the most common type of innovation introduced in most service subsectors for that year, followed by marketing, process, and product innovation. Training for innovative activities is the most commonly utilized form of innovation activity. Among services subsectors, Information and Communication, Financial and Insurance services, and Professional, Scientific, and Technical services are the most innovation-active. In contrast, Real Estate Activities and Arts, Entertainment, and Recreation consistently rank at the bottom in terms of the proportion of firms engaged in innovation. Administrative and Support Services—partly linked to the Business Process Outsourcing industry—also show relatively weak performance, with a low proportion of firms that are innovation-active and engaged in process innovation, and ranking second lowest in product innovation. Across all services subsectors, cost factors were identified among the top three impediments to innovation that were considered of “high” importance. The study also found that firms implementing knowledge management practices, using platforms, utilizing at least one Fourth Industrial Revolution (FIRe) technology, engaging in R&D activities (whether outsourced or in-house), or availing financing are have a higher probability of being innovation-active and are more likely to produce at least one type of innovation.

Due to the simultaneity property of services, distinguishing between product and process innovation could be challenging, and many innovations tend to involve both types (OECD and Eurostat 2018). Bayudan-Dacuycuy and Baje (2018) examined the impact of innovation strategies on labor productivity and employment. Using the 2015 World Bank Enterprise Survey (WBES)-Philippines survey, which covers both manufacturing and services industries, they found that innovation has a positive impact on both labor productivity and employment growth. For **simple innovations** (i.e., involving only one type of innovation), process and product innovations have the highest effects on labor productivity, while product and organizational innovations have the highest effects on employment growth. Firms that are process innovators have labor productivity that is 110% higher than firms that are non-innovators. Product, marketing, and organizational innovators have labor productivity that is 103%, 93%, and 80% higher than non-innovators, respectively. Furthermore, **complex innovation** strategies (i.e., involving more than one type of innovation) have higher effects on labor productivity and employment growth than simple innovations. Firms that are product-process innovators have labor productivity that is 137 percent higher than non-innovators. However, among the possible combinations, only product-process innovations have significant effects on labor productivity. For three-innovators, combining other types of innovation with product and process innovations appears to be a more superior strategy. Firms that are three-innovators have labor productivity that is 210 percent higher than non-innovators. Combined with marketing innovation, product-process innovations enhance labor productivity, while combined with organizational innovation, product-process innovations increase employment growth. Innovators using a combination of product-process-marketing innovations have labor productivity that is 136 percent higher than non-innovators.

---

<sup>6</sup> These types of innovation are based on the 3<sup>rd</sup> edition of the Oslo Manual (OECD and Eurostat 2005). In the 4<sup>th</sup> edition of the Oslo Manual (OECD and Eurostat 2018) only two types of innovation were defined – product innovation and business process innovation. The latter covers six different business functions, which align with the previous types. The functional categories for identifying business process innovation are 1) production of goods or services, 2) distribution and logistics, 3) marketing and sales, 4) information and communication systems, 5) administration and management, and 6) product and business process development (Ibid, p. 73).

### 3.2.3 Workforce development

Human capital is a main driver of labor productivity. It encompasses a person's knowledge, competencies, skills, health, and other characteristics, which in turn are determined by investments in education, training, medical care, and other activities or habits. Individuals' knowledge, experience, and skills, developed through advanced education, training, development, and job changes, increase a workforce's ability to perform effectively. Human capital can be further distinguished between general and specific human capital. The former arises from education and years of schooling, is valued by all firms and jobs, and is transferable across all potential employers. The latter is composed primarily of on-the-job training and is not necessarily portable since it covers skills and knowledge that have productive value only to a specific firm or job. The incentive to acquire these types of human capital investments and the spillover effects are also different (Flabbi and Gatti 2018).

For firms in the services sector, building human capital through employee development involves cultivating various skills and competencies, such as confidence, resilience, ambidexterity (i.e. ability for high levels of both creativity and attention-to-detail behaviors), self-efficacy, cultural sensitivity, and technological competence. Furthermore, in order to sustain improvements in service productivity, training programs must not only develop the required in-role behaviors among employees but also strengthen extra-role behaviors (Hofmeister et al 2024a, 2024b).

For the government, investment in education and training is needed to increase skills since low-skilled labor will remain in the low-productivity jobs, regardless of their sector (Helble et al., 2019, p. 14). Policies for enhancing worker productivity in the modern context require a shift from focusing purely on education length to focusing on the quality, relevance, and adaptability of skills, alongside strategic investments in health and technology that complement, rather than purely replace, the workforce (APO 2023). The change in the nature of work demands continuous learning, meaning workers must develop the ability and willingness to unlearn and relearn. Governments must accelerate upskilling and retooling programs and promote opportunities for lifelong learning.

Foundational skills need to be firmly developed as low proficiency in literacy and numeracy restricts workers' ability to handle straightforward information or basic arithmetic, limiting their potential productivity. Vocational training and education (TVET) systems must adapt quickly to the fast-changing nature of the workplace. Moreover, the efficiency and result-orientation of TVET systems must be more market-driven to be responsive to the needs of industry. Partnerships between the private sector, government agencies, and training institutions are crucial for aligning skills development with market demand (APO 2023). Collaboration, such as providing work-based learning, aids in producing skilled labor forces, including those possessing technical, soft, and digital skills. Strengthening industry- education partnerships can effectively reduce skill mismatches (MacDonald 2019).

### 3.2.4 Technology adoption

Various technologies can help overcome the inherent weaknesses of the services sector presented earlier. Information technology can be adopted across the organization's value chain to boost productivity, for example, through the personalization of services, particularly in data-rich activities, the automation of back-office operations, and generation of faster customer feedback (Hofmeister et al 2024a, 2024b). Websites and multisided digital platforms reduce

information asymmetry through rating systems and the publication of service quality reviews (Sorbe et al. 2018). They also reduce the search costs and expand the market reach not only of firms but of independent workers (Seráfica and Oren 2023a, 2023b). Online platforms have reduced spatial transaction costs, allowing businesses, such as retailers and restaurants, to serve customers far beyond their immediate local area. Digitalization has enabled the tradability of services across borders (Sorbe et al. 2018, Nayyar et al. 2021). The adoption of tangible ICT capital (e.g., computer equipment) and intangible capital (e.g., software, databases, and intellectual property) facilitates scale economies in the services sector (Nayyar et al. 2021).

Latest technological advances may offer a further boost to labor productivity, especially in knowledge-intensive sectors. For instance, artificial intelligence and robotics can automate routine tasks. This accumulation of digital capital and the resulting scale and innovation lead to higher productivity in the services sector, which, due to its strong linkages across the economy, can accelerate overall economic growth (Nayyar et al. 2021). Firm-level evidence from the Philippines demonstrates that service-sector businesses adopting digital technology not only increase their productivity and value-added but also increase the wages paid to their workers. Furthermore, the integration of AI-driven machine learning (ML) algorithms is expected to accelerate intangible capital accumulation. These technologies are central to high-skilled services as they dramatically enhance predictive power in cognitive tasks like problem-solving and recognition (Nayyar et al. 2021; World Bank 2024).

Crucially, technology adoption alone is not sufficient to fully realize these productivity gains. The effective use of digital technology often requires substantial complementary changes. For instance, adopting data technologies necessitates organizational change and complementary sunk investments in both the skills and infrastructure needed to collect and store data, and in the reorganization of business processes to leverage data analytics. In OECD countries, for instance, the positive association between digital technology adoption and productivity is stronger in the absence of information and communication technology (ICT) skills shortages (World Bank 2024).

Furthermore, technological advances may also result in job losses and increased skills mismatch, as well as challenges to competition, such as increased market power of certain firms, data privacy, and tax policies. Maximizing the potential benefits of technologies requires promoting innovation, diffusion, efficient use of technology, reallocation of labor and capital, upskilling, and addressing skill mismatches. These would involve reassessing traditional regulation in the context of digitalization, enhancing the tradability of services, and updating social protection systems, among others (Sorbe et al. 2018, Bayudan-Dacuycuy and Seráfica 2023).

### 3.2.5 External drivers of differences in productivity

Government policies shape the operating environment, and thus it is important to understand the implications on productivity of market interventions. Although they may not directly increase a firm's productivity, external drivers can affect producers' incentives as well as influence internal decisions and strategies. Factors that may affect a firm's productivity level and productivity growth include (Syverson 2011):

- i. Productivity spillovers -  
The productivity of other firms can be improved through knowledge transfers or when firms try to replicate the best practices of industry leaders. Foreign direct investment can also create spillover effects to domestic producers.
- ii. Competition environment -  
Pressures from potential or actual competitors can affect productivity levels within an industry via two key mechanisms. One is through a selection process whereby market shares move in favor of more efficient producers relative to less efficient producers, even inducing their exit. In a dynamic setting, Darwinian selection will encourage the entry of stronger competitors, raising the productivity bar even further. The exit of less efficient firms and the entry of more efficient counterparts drive the *between-component* of aggregate productivity. Competitive pressures can induce incumbent firms to undertake productivity-enhancing actions and investments. This is another mechanism by which competition affects productivity, as it raises the productivity levels not only of firms but also aggregate productivity through the *within* component. Trade liberalization, which opens the domestic market to foreign producers, is an example of a policy that exposes local firms to global competition, affecting productivity growth through both within- and between-firm (selection) effects.
- iii. Regulatory environment -  
Poorly regulated markets can create perverse incentives that reduce productivity. Deregulating or reformatting to smarter forms of regulation can reverse this. In regulated service industries, for example, outdated price regulation can reduce the incentives to innovate and increase incentives to overinvest in physical capital. For example, the implementation of "incentive regulation" programs explicitly ties operators' earnings to the achievement of particular operating efficiencies. Changes in ownership structures, for example, the privatization of state-owned enterprises, can also affect productivity.
- iv. Flexible input markets –  
Flexible input markets allow firms to respond to the changes and challenges faced in competitive product markets. Due to the complementarity between product market and input market flexibility, as consumers shift their purchases from one firm to another, producers should also be able to adjust their inputs to meet the changes in demand. The faster the reallocation process works, the easier it is for firms to respond. Policies, regulations, and institutions can facilitate the reallocation process (e.g., improve match efficiency, solve asymmetric information problems, or serve efficiency-enhancing roles). They can also impede flexibility if, for example, they encourage rent-seeking behavior instead.

The importance of flexible input markets in achieving structural change (the between effect) was highlighted in Konte et al (2022). Analysis of the effect of structural reforms implemented during the period 1975–2005 on differences in cross-country aggregate labor productivity growth in developing countries showed that although most of the trade, product market, and financial sector reforms have increased labor productivity growth, these reforms primarily induced intrasectoral (within-sector) productivity growth, contributing from 76 percent to 96 percent depending on the reform. In contrast, intersectoral effects were muted. The contribution that comes from the structural change component varied between 4 percent and 24 percent, with a negative contribution observed in most cases. Moreover, labor market regulations were found to be crucial, such that reforms in agriculture and trade current account significantly increase structural change depending on whether or not labor markets are flexible. It is also important for the government to ensure a stable economic environment and reduce regulatory

burdens, which could otherwise distract management's focus. For one, a stable macroeconomic environment can help businesses plan better. Equally important for the government to help service industries be more productive is by not overregulating. Stable and facilitative regulatory environments can minimize the demands on the attention, time, and other resources of businesses, allowing them to focus on improving their services (Van Bienna and Greenwald 1997).

To foster growth in the services sector, governments should implement policies and regulations that encourage both domestic and foreign direct investment, invest in human capital, promote trade openness, and strengthen high-quality institutions, especially within the modern services sector (Lee and McKibbin 2018). According to the World Bank (2024), lowering barriers to competition in services industries boosts productivity not only in services themselves but also in manufacturing sectors that depend on those services. Moreover, effective development strategies must recognize how opportunities and institutional or skill capacities reinforce each other. Recent shifts in technology and service-sector policies have already begun reshaping economies, even with uneven digital adoption and partial reforms. These changes have raised productivity in both services and service-reliant manufacturing and increased demand for more advanced and technology-complementary skills. However, fully activating this positive cycle requires more comprehensive reforms. Expanding opportunities without strengthening capacities may create shortages, while building capacities without generating opportunities can result in underused resources. Sustainable development, therefore, depends on balanced policies where improved capabilities support competitive advantages, and evolving advantages in turn encourage continued investment in skills and resources.

### *3.3 Options for expanding productive employment in services*

This section presents possible government interventions to help firms and workers enhance their capabilities for upgrading, thereby increasing productive employment in services.

#### **Active labor market programs**

In general, labor market programs include both passive and aggressive labor market strategies. Passive labor market initiatives include contributory unemployment insurance and non-contributory unemployment aid. Active labor market programs (ALMPs) are interventions designed to facilitate employment, raise productivity and incomes, and improve labor market performance (Brown and Koettl 2015). ALMPs aim to increase opportunities by connecting workers to more productive jobs. They empower beneficiaries with new and better skills, help them find work, and raise their earning potential through training, apprenticeships, job search support, subsidized job placements, and others (Cerutti 2014). Categories of ALMPs (OECD, as cited in Cerutti et al. 2014) are:

- Public employment services and administration
- Training
- Job rotation and job sharing
- Employment incentives
- Supported employment and rehabilitation
- Direct job creation
- Startup incentives

ALMPs could also be grouped based on the main objective (Brown and Koettl 2015): (a) Increase labor demand (e.g. provide incentives for retaining employment; provide incentives for creating employment); (b) Increase labor supply (e.g., provide incentives for seeking and keeping a job; provide incentives for human capital enhancement) and (c) Improved labor market matching.

ALMPs generally have a statistically significant, albeit relatively small, positive impact on labor market outcomes for their participants. However, the effects vary depending on the type of intervention. Additionally, program duration does not necessarily correlate with program effectiveness. **Enhanced services** (e.g., job search assistance, meetings with caseworkers) as well as **training and retraining programs**, have a positive impact in both the short and long term (although the effect of the former becomes statistically insignificant over time). The impact of **subsidized labor** (including working tax credits) is negative in the short term (12 months), which may be attributed to participants being in the program and not actively seeking employment (the “lock-in” effects). The effect of **public sector employment schemes**, in which the government attempts to directly hire the unemployed, takes longer (36 months). Thus, subsidized labor is preferred over public employment schemes because its positive effects manifest earlier and it has shorter lock-in effects, as subsidized labor schemes typically include on-the-job training tailored to labor demand. However, the small average effect of ALMPs highlights the need for thorough cost-benefit analyses and continual evaluations (Vooren et al. 2019). Comparatively, the study of Fredriksson (2019) suggested that training programs reduce unemployment in the short term, whereas public employment services (PES), which facilitate job matching between employers and employment seekers, and wage subsidies are associated with reduced unemployment in both the short- and long-term effects. Additionally, an increase in spending on PES is shown to reinforce the long-term effects of training programs.

### **Productivity-boosting programs**

According to Rodrik and Sandhu (2024), labor market initiatives have traditionally concentrated on workforce development. In order to increase productivity and/or employment possibilities in the services sector, there is a need to enhance the skills and capacities of both workers and firms and improve intermediation services to link the demand and supply sides of labor markets. They identify four broad strategies to increase productive employment in services. The first is by encouraging **large and relatively productive firms** to expand their employment either directly or indirectly through their supply chains. This could involve, for example, sharing unemployment information or reducing regulatory burden. The second is by providing **smaller firms** with public inputs such as management training, loans or grants, technology assistance, or specific infrastructure. The third set of strategies involves the **provision of technology** to firms and workers in order to expand their skill set and enable them to perform tasks that are usually assigned to more skilled workers. This would require providing digital tools or other new technologies that complement low-skill labor and investing in the necessary training. The last set of mechanisms focuses on **less educated workers**. This strategy would need a combination of vocational training with “wrap-around” services such as counselling, internships, and transportation stipends. Experimental or quasi-experimental methods could be employed to determine whether and under what conditions specific initiatives result in high productivity jobs (Over 2024). To differentiate the impact on key outcome variables by subsector, the same intervention could be introduced to a sample of firms across different services. The impacts measured could include increases in value-added per worker, exports of tradable services, or forward linkages. Such experiments, according to Over

(2024), contribute to data-driven development. At the same time, while randomized controlled trials (RCTs) are useful in generating insights on various policy issues, these cannot substitute for sectoral or economy-wide policy reforms, which are needed to transform the economy and create new economic activities (Rodrik and Stiglitz 2024).

### Focusing on non-tradable services

Most of the jobs in labor-absorbing service activities will be in the non-tradable sector and typically composed of micro enterprises characterized by high informality. Thus, Rodrik and Stiglitz (2024) stressed the importance of programs that simultaneously expand the formal sector and increase the productivity of enterprises in the informal sector. The specific strategies they proposed include: (1) encouraging larger companies in non-tradable services to create jobs that require lower skills; (2) giving smaller businesses public inputs and access to investments that will make them more productive; and (3) investing in technologies that will help low-skilled workers in service sectors instead of replacing them. They add that given the diversity of service activities, local conditions, and enterprises, local governments may be in a better position to engage in public-private partnerships compared to the national agencies.

### Leveraging the 4Ts: trade, technology, training, and targeting

Nayyar et al. (2021) explain how the scale, innovation, and spillovers, along with job creation for unskilled labor that propelled industrialization, can be replicated in the services sector. Given the range of services that differ in terms of skill intensity, offshorability, capital intensity, R&D intensity, and intersectoral linkages, a more targeted approach is needed, as a one-size-fits-all solution will not be effective. Under their proposed 4Ts agenda, leveraging **trade** (to access larger markets), **technology** (particularly digital technology), **training** (to shift workers to skill-intensive subsectors or enable them to perform more complex tasks) and **targeting** (prioritizing services with higher multiplier and knock on effects) can help attain larger scale economies, enhance labor productivity through innovation, and capitalize on spillover effects through linkages between services and other sectors.

Mapped against the possible impacts of various trends affecting services, such as reduced proximity, automation, an increase in intangible capital, and the extent of intersectoral linkages, the relevant policy interventions for the different subsectors are identified in Table 6.

**Table 6. Priority within the 4Ts agenda**

Subsectors	Trade (if H/M in reduced proximity)	Technology (if H/M in increased automation)	Training (if H/M in intangible capital)	Targeting (if H/M in sectoral linkages)
ICT, finance, and professional services	Yes	Yes	Yes	Yes
Education services	Yes	Yes	Yes	No
Health services	Yes	Yes	Yes	No
Transportation, wholesale trade, and administrative and support services	Yes	Yes	No	Yes
Accommodations and food; retail trade; arts, entertainment, and recreation; and other services	No	Yes	No	No

Note: H/M = high or medium. ICT = information and communication technology

Source: Lifted in full from Nayyar et al. (2021, p. 255)

The effectiveness of the strategies will depend both on the underlying productivity dynamics of low-skill services (e.g., transportation and storage) and whether the productivity benefits of global innovator services (e.g., ICT and professional services) can be spread more widely through linkages with sectors that employ larger numbers of low-skilled workers (Nayyar et al. 2021).

### Provision of business services

Firms may need specific business services in order to upgrade (see Box 1). Because innovation creates positive externalities, governments either subsidize or offer certain business services for free to private enterprises. Cirera et al (2020) provide guidelines on the design of business advisory services and policy instruments to support innovation. They stress that certain competencies are needed for firms to benefit from business advisory services, such as awareness and absorptive capacity. The ability to co-finance is also important, as evidence shows that firms value business advisory services more when they have skin in the game. On the part of implementing agencies, they will also need to invest in awareness building, possess the right technical abilities (as well as employ a robust process for accrediting service providers), and have sufficient funding capacity (or a stable source). Technology extension services, which are a type of business advisory service, are geared toward implementing technology solutions and are especially important with the advent of the FIRE technologies. Such services can help analyze the technological capabilities of a firm, identify gaps, and recommend specific solutions, such as digital technologies in the case of service enterprises. These can be provided on-site or in technology centers.

#### Box 1. Business services that support innovation

- **Basic industrial services (promotion, marketing, and internationalization):** assistance for tenders of the European Union (EU), World Bank, and other development organizations; assistance for direct investment abroad; assistance for inward investors; legal and financial assistance; financial services, including accounting and tax assistance; market information or other economic data; organization of and participation in trade fairs and other promotional events; partner search.
- **Technology extension services:** assistance for patenting and licensing, grant applications, in-house R&D activities, and subcontracting to research institutes; competitive intelligence, including technological benchmarking, technology maps, and information on emerging technologies; innovation diagnosis; review of current or proposed manufacturing methods and processes; participation in and organization of technology exhibitions; technology brokerage.
- **Metrology, standards, testing and quality control:** calibration of equipment; quality certification; domestic standard; ISO (International Organization for Standardization) compliance; technical assistance; demonstration centers and test factories; energy audits; materials engineering.
- **Innovation in organization and management:** assistance for enterprise creation; interim management; logistical assistance; organizational consultancy, quality and training; productivity assistance; incubation services.
- **Information and communication:** advanced services for data and image transmission; assistance on communication strategies, telecom network connections, and the implementation of electronic data interchange systems; database search.

Source: Lifted in full from Aubert et al. (2010, p. 75). See also Cirera et al. (2020) for other examples.

## 4 Relevant laws and government programs in the Philippines

A key element of conducting the contextual analysis for the ToC involves understanding the current landscape in terms of policies and interventions. This chapter highlights the major reforms and assistance provided by the national government that are relevant to increasing productivity in the services sector.

### 4.1 Policy environment for services and productivity

The policies and regulations related to increasing productivity in the services sector are multifaceted, focusing on liberalization, improving the business environment, enhancing infrastructure and digital connectivity, and developing human capital, particularly in the context of the Philippines' goal for inclusive growth and competitiveness. See Table 7.

**Table 7. Relevant policy reforms for the past 10 years**

Economic liberalization and reform	
Corporate Recovery and Tax Incentives for Enterprises to Maximize Opportunities for Reinvigorating the Economy (CREATE More) Act (RA 12066, 2024)	Enhances the CREATE Act, including further reducing the corporate income tax, clearer VAT rules, and local tax simplification.
Amendments to the Public Service Act (RA 11659, 2022)	Enables full foreign ownership in public services that are not deemed public utilities. However, national security safeguards remain in place, particularly for investments in critical infrastructure, which may be subject to review, restrictions, or conditions to protect national welfare and strategic interests.
Amendments to the Foreign Investment Act (RA 11647, 2022)	Encourages foreign investments in domestic enterprises by lowering the paid-up capital threshold from USD 500,000 to USD 200,000 (and potentially further to USD 100,000 under certain conditions). Removing restrictions is considered necessary for transfer of technology and skills.
Amendments to the Retail Trade Liberalization Act (RA 11595, 2021)	Relaxes restrictions on foreign retailers in the retail trade sector by eliminating pre-qualification requirements and lowering the minimum paid-up capital threshold from USD 2.5 million to PHP 25 million.
The Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act (RA 11534, 2021)	Lowers the corporate income tax rate and grants tax incentives to attract investments, particularly project and activities covered by the Strategic Investment Priority Plan.
Ease of Doing Business and Efficient Government Service Delivery Act (RA 11032, 2018)	Simplifies and expedites government services. This includes requiring that simple transactions be completed within three days, complex transactions within seven days, and highly technical transactions or serious matters involving the public within 20 days.
Philippine Competition Act (RA 10667, 2015)	Promotes fair competition and penalizing anticompetitive behavior, ensuring competitive advantage is earned through continuous innovation and improvement, rather than through the misuse of market dominance.

ICT and digitalization	
Konektadong Pinoy Act (RA 12234, 2025)	Promotes digital inclusivity by liberalizing the data transmission services sector. It achieves this through major reforms, such as eliminating the legislative franchise requirement for data transmission industry participants, implementing an open access policy, promoting infrastructure sharing, and mandating a Spectrum Management Policy Framework.
Department of Information and Communications Technology (DICT) Act (RA 10844, 2016)	Created a lead agency to improve the ICT infrastructure and services for national development.
Liberalization of access to satellite services (EO 127 s.2021)	Expands internet connectivity by liberalizing access to satellite-based services.
Streamlining Permitting Process for Telecommunications and Internet Infrastructure Construction (Executive Order 32 s.2023)	Mandates a streamlined, one-stop permitting process for the construction of telecommunications and internet infrastructure across national and local government units
National Broadband Program	Invests in building Philippine Integrated Infostructure (PII), consisting of the National Fiber Backbone, cable landing stations, accelerated tower build-out, and a Satellite Overlay to connect geographically isolated and disadvantaged areas (GIDAs)
Free Public Internet Access Program (RA 10929)	Aims to provide minimum 2 Mbps internet speed in public places like schools and government offices
Tech4ED-Digital Transformation Center (Tech4ED-DTC) Project	Focuses on providing connectivity, ICT equipment, and digital literacy training in underserved communities
Human capital and/or workforce development	
Enterprise-Based Education and Training (EBET) Framework Act (RA 12063, 2024)	Promotes better workforce competitiveness by offering fiscal incentives to businesses that implement practical, enterprise-based training and upskilling programs to effectively address the national job-skills mismatch.
Trabaho Para sa Bayan Act (RA 11962, 2023)	Mandates establishing a national employment plan for employment generation, improving the workforce, promote the growth of businesses, particularly MSMEs, among others. The TPB Plan 2025–2034 is a 10-year labor market strategy that provides a national framework for job creation and workforce development.
Philippine Digital Workforce Competitiveness Act (RA 11927, 2022)	An act to enhance the Philippine digital workforce competitiveness, establishing for the purpose an inter-agency council for the development and competitiveness of the Philippine digital workforce and for other purposes
Tulong-Trabaho Act (RA 11230, 2019)	An Act Instituting a Philippine Labor Force Competencies Competitiveness Program and Free Access to Technical-Vocational Education and Training (TVET), and Appropriating Funds therefor
Telecommuting Act (RA 11165, 2019)	Allows private companies to implement a telecommuting program while ensuring minimum labor standards are met.

Industrial policy, innovation, and technology	
Tatak Pinoy (Proudly Filipino) Act (RA 11981, 2024)	Aims to foster a globally competitive market for Philippine products and services by prioritizing investment in R&D, innovation, technology, and the enhancement of the human capital within domestic enterprises. The Tatak Pinoy Strategy (TPS), a 10-year national industrial roadmap that aims to strengthen key sectors, create jobs, and lift Filipino products to global standards. Signed through Memorandum Circular (MC) No. 104 last Oct 24, 2025
Creative Industries Development Act (RA 11904, 2022)	Aims to foster creative sector's growth by implementing comprehensive support mechanisms that cover key areas like infrastructure, R&D, innovation, and digitalization.
The Innovative Startup Act (RA 11337, 2019)	Provides specific programs, benefits, and incentives to encourage the creation and successful operation of innovative businesses.
Philippine Innovation Act (RA 11293, 2019)	Aims to stimulate and expand initiatives across all facets of education, training, R&D, and development to foster innovation and international engagement among MSMEs, positioning them as the engine for sustainable and inclusive growth.

In terms of providing tax incentives to encourage productivity improvements at the firm level, the following laws are relevant:

#### RA 6971 – Productivity Incentives Act 1990

An enterprise implementing a productivity incentives program shall be entitled to an additional deduction of 50 percent of the total productivity bonuses and grants for human resource training and special studies provided to employees. This deduction is on top of the usual allowable business expense deductions. In effect, it serves as a tax incentive by further reducing the enterprise's taxable income (RA 6971).

Based on the ISLE, among 402 establishments with PIPs in the services sector in 2021, 334 (83%) have availed of incentives under the Productivity Incentives Act of 1990, with all establishments in the Transportation and Storage, Accommodation and Food Service Activities, Real Estate Activities, and Arts, Entertainment and Recreation have availed this particular tax incentive (PSA 2025c).

#### RA 10771 – Philippine Green Jobs Act of 2016

Incentives shall be given to businesses that promote and sustain green jobs. Fifty percent of total expenses for skills training and research development shall be deducted from its taxable income. Importation of capital equipment used in the promotion of green jobs of businesses shall be tax and duty-free.

Based on the ISLE, among 402 establishments with PIPs in the services sector in 2021, about 83 establishments (21%) availed of tax incentives under the Philippine Green Jobs Act of 2016.

More than 25 percent of establishments have availed of incentives in the Human Health, Education, and Arts, Entertainment, and Recreation services sectors (PSA 2025c).

#### RA 12066 – The CREATE MORE Act 2024 (Amended CREATE Act 2021)

The Corporate Recovery and Tax Incentives for Enterprises Act, in accordance with the priorities of the Strategic Investment Priority Plan, includes the provision of incentives to enterprises that conduct research and development activities that result in increased value added, higher productivity, enhanced efficiency, and promote high-paying jobs.

Based on the ISLE, among 402 establishments with PIPs in the services sector in 2021, about 44 establishments (11%) in the services sector availed of other tax incentives. In particular, Professional, Scientific, and Technical Activities have the highest proportion of establishments availing other tax incentives, followed by Information and Communication (33%) and Financial and Insurance Activities (24%) (PSA 2025c). It is unclear whether the “other tax incentives” mentioned in the ISLE refer specifically to those provided under the Corporate Recovery and Tax Incentives for Enterprises (CREATE) Act, since it was passed in March 2021 and amended (CREATE MORE Act) in 2024.

The recently passed Enterprise-Based Education and Training (EBET) Framework Act (RA 12063, 2024), which allows a portion of the training expense to be deducted from taxable income, is further described below.

#### 4.2 *Active labor market programs (ALMPs)*

The Philippines implements a variety of active labor market programs, including skill development, job services, as well as public works and livelihood programs (World Bank 2023). Technical Education and Skills Development Authority (TESDA) takes the lead for technical and vocational education and training (TVET) skills training, while the Department of Labor and Employment (DOLE) spearheads the provision of employment services in coordination with local government units (LGUs). For example, LGUs manage the public employment service offices (PESO), which facilitate job matching, labor market information dissemination, career guidance, and employment coaching, utilizing online search tools such as PhilJobnet, job referrals, and job fairs. The program was institutionalized by Republic Act 10869 (“JobStart Philippines Act”) in 2019. The Department of Social Welfare and Development (DSWD) implements the Sustainable Livelihood Program (SLP) to assist Pantawid Pamilyang Pilipino Program (4Ps) beneficiaries as a graduation strategy. The SLP, in turn, has two sub-pillars - the Employment Facilitation Track supports beneficiaries through training and job matching services, while the SLP Microenterprise Development Track supports self-employment. Although various programs exist, there is a lack of an integrated framework supported by a robust monitoring and evaluation system that could help achieve greater impact (World Bank 2023).

Specific programs were designed as purposive, selective interventions aimed at providing work or enhancing the employability of disadvantaged individuals. These programs generally target vulnerable and marginalized sectors, utilizing various approaches such as direct employment, wage subsidies, livelihood support, employment services, and human resource development. The Sustainable Livelihood Program (SLP) is well-targeted toward the poorest households, and the Special Program for Employment of Students (SPES) has focused on poor beneficiaries, including those below the national poverty line and recipients of the Pantawid

Familyang Pilipino Program (4Ps) (Ballesteros & Israel, 2024; Orbeta & Paqueo, 2017). A number of programs, however, are primarily adopted as stopgap measures to address the adverse effects of economic crises on employment. Their employment performance is often transitory and short-term, and it is often unclear how these numbers are translated at the macro level (Ballesteros & Israel, 2014).

Technical and Vocational Education and Training (TVET) is crucial in developing a skilled workforce and offers a pathway to productive employment, especially for the youth. It is a mechanism to engage those who are Not in Employment, Education, or Training (NEET) and integrate them into the labor market. Based on the Study on Employment of TVET graduates (SETG) conducted in 2022, about 85 percent of TVET graduates have been employed, while 93 percent of about 808 thousand assessed have earned their national certificates (TESDA 2023). TVET programs can be delivered through government and private vocational institutes (**Institution-based**), at the workplace (**Enterprise-based**), and in local communities (**Community-based**), focusing on poor and marginalized groups (Orbeta and Paqueo 2022; Epetia and Villena 2023).

TESDA scholarship programs demonstrate strong internal efficiency (high graduation rates) and increase the likelihood of employment after training, while also reducing the duration of job searches for scholars. These scholarships cover training and assessment costs and provide allowances, with some offering additional benefits like free entrepreneurship training (Orbeta and Paqueo 2017; Orbeta and Corpus 2024). In addition to internal efficiency, training programs must also achieve external efficiency (high employment rate) (Orbeta and Paqueo 2017). Thus, it is important to ensure that programs are responsive to the needs of industry. The involvement of industry experts in designing and updating training programs is crucial. Efforts to recruit industry practitioners as trainers and assessors and promote industry exposure for school-based trainers are vital for maintaining training quality. A sustainable pool of trainers and assessors from the industry could be created by making the accreditation process more accommodating to specialists and offering better incentives and remuneration (Generalao 2024). The TVET curriculum should also keep up with 21st-century (or transversal) skills (Orbeta and Paqueo 2022).

Enterprise-based training is favored by industries as a demand-driven solution to skills mismatch, leading to improved labor market and skills outcomes for trainees, greater productivity, profitability, and innovation for participating firms, and enhanced overall labor productivity and competitiveness (Epetia and Villena 2023). Firms participate in EBT to cultivate a pool of skilled workers, gain an extended screening period for new hires, provide training tailored to company needs, and boost overall productivity. EBT has been instrumental in developing the labor force of advanced industrial Asian economies (Generalao et al. 2024). The Dual Training System (DTS), a key EBT modality, offers benefits that outweigh its costs, including savings in recruitment and onboarding, and improved long-run productivity of DTS-trained workers. It mandates at least 60% in-plant training and ensures trainees receive at least 75% of the minimum wage. However, EBT modalities suffer from low industry engagement, which could be attributed to a lack of awareness and difficulty in accessing EBT incentives due to administrative costs, lengthy processes, unclear guidelines, and financial constraints to cover equipment costs and allowances, among others. The policy environment is often seen as restrictive, with lengthy requirements that discourage industry involvement in training and program development (Generalao et al. 2024).

Below describes recent policy developments to strengthen labor markets:

- “Trabaho Para sa Bayan Act (RA 11962),” a 10-year employment plan signed in 2023

The law mandates the development of a national employment masterplan or the “Trabaho Para sa Bayan (TPB) Plan to generate employment and entrepreneurship opportunities, especially supporting sustainable growth of MSMEs, and promote access to decent employment and enhance productivity of Filipino workers. It covers setting goals for three, six, and ten-year periods.

It includes measures, indicators, and action items such as supporting the growth and sustainability of MSMEs; incentivizing employers or organizations with initiatives that support the improvement of workers; and identifying priority sectors and industries. It also covers skilling, upskilling, and reskilling of workers, promoting workers’ rights, addressing youth unemployment, providing standards for internships, promoting the welfare of workers in new forms of work, facilitating the transition of workers from informal to formal economy, and promoting decent work for workers local and overseas. Moreover, it aims to expand the coverage of the active labor market policies, establish grievance redress mechanisms, and strengthen tripartism and social dialogue.

The Inter-Agency Council (IAC) is composed of representatives from the national government agencies, with the Director-General of the Department of Economy, Planning, and Development as chairperson and Secretaries of the Department of Trade and Industry (DTI) and the Department of Labor and Employment (DOLE) as co-chairpersons. It also involves representatives from the employers, workers, marginalized and vulnerable sector, and the informal sector, who shall formulate the TPB Plan. The TPB-IAC may also set up working groups to implement the TBP Plan. The plan shall be implemented at the LGU, local, and national levels of the government, and they shall coordinate with the TPB-IAC in its implementation and submit bi-annual reports containing the status of implementation, evaluation, and recommendations to the Office of the President and the Legislative Branch of the government. The reports will also be publicly accessible (RA 11962). The Plan was launched in May 2025 (DEPDev 2025a).

- “Enterprise-Based Education and Training (EBET) Framework Act (RA 12063),” signed in 2024

The EBET law to enhance the competencies and employability or entrepreneurial skills of workers through skills training in partnership with the private sector. This shall address labor issues such as job mismatch and unemployment. TESDA, with the help of industry boards and associations, shall provide a list of priority occupations at the regional and national levels, consistent with the Trabaho Para sa Bayan Plan.

Enterprises register EBET programs with TESDA before entering into an agreement with the trainee. Sectors with recognized industry boards shall create EBET programs for their industries for approval by TESDA. The duration of the program is less than 3 years. Enterprises may partner with TVI to conduct theoretical instruction. In addition, enterprises that employ foreign nationals shall be encouraged to set up an appropriate EBET program for technology transfer.

For those under apprenticeship, the training allowance is not less than 75 percent of the minimum wage rate. For those in the upskilling program, trainees shall be provided with a full wage and benefits as a regular employee.

Enterprises implementing EBET programs can avail of a deduction from taxable income equivalent to 50 percent of actual training expenses until 2027 and 75 percent in 2028, but not exceeding 5 percent of total direct labor expenses or PhP25 million, whichever is lower.

- Administrative Order No. 36, s. 2025, Establishing the education, workforce development group

The President issued Administrative Order No. 36 to establish the Education and Workforce Development Group (EWDG), composed of the President as chairperson, the DepEd secretary as co-chairperson, the DOLE secretary as vice-chairperson, and heads from the Commission on Higher Education (CHED), Department of Migrant Workers (DMW), DepDEV, and TESDA.

National Education and Workforce Development Plan (NEWDP), a 10-year plan to guide relevant government agencies in aligning the education and workforce system to cope with the demands of the global economy. This includes addressing education sector issues, identifying priority programs and projects, and strengthening the labor market information system to inform learners, educational institutions, and concerned government agencies in creating programs, offerings, and training. EDWG shall also suggest mechanisms to streamline and rationalize the efforts of relevant inter-agency councils and monitor and evaluate existing government efforts related to education and workforce development (PCO 2025).

#### ***4.3 Productivity improvement programs for enterprises***

As earlier presented, business services can help enterprises become more competitive through the transfer of knowledge and improvements in efficiency and productivity. Productivity centers in particular work with firms across different sectors to enhance various processes within the organization (Aubert et al. 2010).

Based on the Integrated Survey on Labor and Employment (ISLE), of the roughly 36 thousand surveyed establishments in 2021, employing a minimum of 20 employees, only 41 percent implemented productivity-enhancing programs. The highest proportion of establishments implements 7S of Good Housekeeping, followed by Continuous Process Improvement and Client Satisfaction Measurement. In terms of the services sector, about half of the surveyed establishments in the Human Health and Social Work Activities Except Public Health Activities, Accommodation and Food Service Activities, and Other Services sector have implemented productivity-enhancing programs (PSA 2025c).

Various government entities conduct efforts to improve productivity that cover firms regardless of size and industry. Their services range from providing training, technical assistance, coaching, consultancy, mentorship, and partnership. Training focuses on teaching specific skills or knowledge through structured learning programs, while consultancy provides expert advice and solutions tailored to address specific business challenges.

ISLE classifies productivity improvement programs into eight categories, including workplace organization, performance assessment, work efficiency enhancement, alignment of

organizational objectives, defect and waste reduction, and product and process improvement (see Table 8).

**Table 8. Types of productivity improvement programs**

<b>7S of Good Housekeeping</b>	Training program on waste elimination through workplace organization. 7S means sort, systematize, sweep, standardize, self-discipline, sustain, and safety
<b>Client Satisfaction Measurement (CSM)</b>	Assessment of performance from the customer's point of view.
<b>Total Quality Management (TQM)</b>	Management philosophy that seeks to integrate all organizational objectives.
<b>Lean Management</b>	Productivity program on doing more with less, i.e., less time, inventory, space, labor, and money.
<b>Suggestion/Feedback Scheme</b>	Formal mechanism which encourages employees to contribute constructive ideas for improving their organization.
<b>Six Sigma</b>	Program aimed at the near elimination of defects from every product, process, and transaction.
<b>Just-in-Time</b>	Production technology system which promotes economic efficiency, with a central principle of “produce appropriately what is necessary, just as much as needed, when needed”
<b>Continuous Process Improvement</b>	Act of implementing improvements to a product, service, or process.

Source: PSA (2023)

#### 4.3.1 The National Wages and Productivity Commission

The National Wages and Productivity Commission (NWPC) provides training and technical assistance on productivity tools and technologies to Micro, Small, and Medium Enterprises (MSMEs). The NWPC’s roots trace back to two separate councils—the National Wages Council and the National Productivity Commission—which were merged to form the NWPC in 1989. This transformation, along with the creation of the Regional Tripartite Wages and Productivity Boards (RTWPBs), was mandated by the Republic Act 6727 (Wage Rationalization Act of 1989) and the Republic Act 6971 (Productivity Incentives Act of 1990).

The NWPC coordinates with the Regional Tripartite Wages and Productivity Boards (RTWPBs), which are present in every region except BARMM. Each RTWPB is composed of about 7 to 9 employees. Although BARMM does not have an RTWPB because it operates under its own Ministry of Labor and Employment as an autonomous region, the NWPC continues to extend technical assistance upon request, particularly in sharing how the NWPC and the RTWPBs implement productivity improvement programs. RTWPBs are crucial for program advocacy and delivery. Training calendars are advertised on RTWPB’s social media accounts and the NWPC website. There are also client referrals coming from partner organizations, including the DTI, LGUs, and DOST. Alternatively, MSMEs can access the NWPC website and apply through an electronic form, which is then processed by the corresponding regional office. In addition, RTWPBs also conduct local surveys to assess MSMEs’ specific needs.

The Productivity Policy and Research Division supports evaluation-related activities by conducting impact assessments. The division, together with the RTWPBs, performs an annual review of program content. The process also utilizes feedback from participants, as well as

industry trends, which are then used to integrate new policies and best practices. The Training and Technical Services Division is responsible for developing the training modules. For instance, modules on mental health and business continuity and resilience planning were developed for businesses to cope with the COVID-19 pandemic. The NWPC is currently venturing into designing digitalization modules.

DOLE and DTI have an ongoing Memorandum of Agreement (MOA) on Enterprise Development and Livelihood Assistance, which promotes DOLE–DTI convergence and aims to raise the productivity levels of MSMEs. It plans to create a database of enterprises to track the interventions each has received and serve as a referral system. The system would enable clients to be referred to the NWPC for training and technical assistance in developing productivity improvement program and productivity incentive schemes (e.g., Productivity toolbox), to the DTI for access facilitation, and to DOLE for financial and livelihood programs (e.g., DOLE Integrated Livelihood Program [DILP] and Adjustment Measures Program [AMP]), along with corresponding technical assistance. As of September 2025, the number of referrals facilitated under the AMP is 330, under DILP is 625, and under the Productivity Toolbox is 804.

### **Productivity toolbox**

The NWPC has developed the Productivity Toolbox, which contains 28 training programs for MSMEs across various sectors. The Productivity toolbox contains training to support MSMEs in adopting technologies and systems to improve the productivity of businesses. These include a ladderized package from basic training programs focusing on productivity concepts, work values, among others, to intermediate covering enterprise and customer management, market expansion, sustainability and resilience, and advanced, including specialized knowledge and tools to enhance productivity in specific areas (NWPC n.d.). Currently, the NWPC has an e-prod system used to record trainings conducted and productivity improvement programs developed. It also includes the information of enterprises that have availed of the trainings by level (basic, intermediate, and advanced).

In 2024, about 28,767 MSMEs were trained or oriented under the Enterprise Productivity Improvement Program, while 1,709 were provided with technical assistance on designing productivity-based incentive schemes. Among the trained MSMEs, 66 percent have a productivity improvement program or action plan (DBM 2025). From January 2025 to October 2025, about 79 percent of the 5,558 MSMEs that availed of productivity training were from the services sector, while 15 percent were from the industry sector, and the remaining 6 percent were from the agriculture sector. While all 28 programs are available to the sectors, three of which are particularly beneficial for the services sectors, namely: 7S of Good Housekeeping, ISTIV Program (a values-based program focusing on the values of a productive worker: Industrious, Systematic, Time-conscious, Innovative, Strong Value for Work), and Service Quality and Building Customer Advocacy. 7S of Good Housekeeping and Service Quality are the most availed training programs among MSMEs in the services sector.

All trainings and services are offered for free, funded by the General Appropriations Act (GAA) annually, which covers materials, facilitation, meals, and venue costs. The NWPC also partners with other government agencies and employer organizations to secure additional funding. Moreover, the NWPC links MSMEs to the Department of Labor and Employment (DOLE) for capital and grants to fund the acquisition of tools and equipment (e.g., the DOLE Adjustment Measures Program).

The in-person trainings typically last 6 to 8 hours and include an actual planning session. RTWPBs subsequently monitor the outcomes of participants who implement their action plans over a period of 3 to 6 months. The NWPC also has self-paced e-learning courses are also available and can be completed within a maximum of six months. Participants must be a duly-registered enterprise, possess a basic organizational system (as applicable), and be willing to implement the productivity enhancement programs. The NWPC also provides a checklist in the terminal reports as indicators or guide for documenting improvements.

### **Other programs and initiatives**

Other programs include Productivity Portfolio, which aims to improve productivity in low-productivity areas. It started in Mindanao with the lowest productivity. LGUs, government agencies, and private organizations. Within Mindanao, there are different focused industries. Currently, it is also done in Luzon and Visayas. Track 1 concentrates on programs implemented by DOLE, while Track 2 involves convergence efforts with other government agencies.

It also launched Productivity Olympics to raise awareness on productivity by showcasing productivity-enhancing practices in enterprises. These enterprises are also tapped to give practical advice and insights to other MSMEs. In addition, it also launched Tamang Kaalaman sa Kita and Kakayanan (T3K) to further raise awareness on available wage and productivity policies and programs through public information assistance, webinars, and online and social media platforms. NWPC also conducts research and studies regarding productivity.

To raise awareness of enterprises regarding improving their productivity, NWPC also conducts National Productivity Conferences with experts and industry practitioners to inspire enterprises to proactively improve productivity. Recently, conferences have focused on utilizing digital technologies and artificial intelligence as tools for improving productivity.

### **Key issues and way forward**

The NWPC faces several issues in the implementation of its training and programs, which include limited resources and participation. The policy of allowing only one training per enterprise per year is based on three primary considerations. First, the NWPC must serve a wider pool of MSMEs to broaden its reach. Second, each training requires the enterprise to develop a Productivity Improvement Program (PIP), which must be monitored within the year. If multiple trainings are attended and multiple PIPs are produced, it would be difficult for MSMEs to implement several improvement initiatives simultaneously, potentially overwhelming their available resources and capacities. Third, budgetary constraints necessitate an equitable allocation of resources. In addition, MSME participation is hampered by MSMEs' limited staff and scheduling constraints. There is a need for more sector-specific and inclusive training materials for emerging needs, such as digital transformation and the circular economy, which the agency is currently addressing. Monitoring and reporting alignment with partner government agencies (DOST, DTI, LGUs) is also a concern, as well as the changes in the organizational structure of partner government agencies that can affect the continuation of convergence programs. According to the NWPC, the technical competence of the staff is not limited. However, there is a need to further strengthen their capabilities, as the evolving demands of program implementation require more advanced skills and greater adaptability to emerging tools and approaches.

The programs of NWPC are composed of core and continuing programs and the initiatives developed in response to emerging needs and inter-agency convergence:

- Core and Continuing Programs
  - Promotion of Productivity Improvement and Incentive Schemes for MSMEs. As part of this mandate, the NWPC develops training modules and provides technical assistance in preparing PIPs and productivity-based incentive schemes (PBIS) to support enterprise productivity enhancement.
  - Productivity Olympics. This biennial competition promotes productivity and quality among MSMEs by showcasing outstanding PIPs and best practices nationwide.
  - National Productivity Conference. Held every two years, this conference serves as a platform for the exchange of information and ideas on emerging trends, issues, and developments affecting national productivity and competitiveness.
- Initiatives Arising from Emerging Needs and Inter-Agency Convergence
  - DOLE–DTI MOA. Under this partnership, DTI refers its clients to NWPC for productivity trainings and technical assistance and to DOLE for support through programs such as the Adjustment Measures Program and the DOLE Integrated Livelihood Program.
  - Productivity Portfolio. This initiative consists of two tracks. Track 1 – DOLE Programs, and Track 2 – Convergence initiatives with other partner agencies.

Furthermore, the NWPC has provided the following points for its future direction:

- Improve the monitoring and evaluation system and incorporate data analytics to better track enterprise performance, measure outcomes, and identify areas for improvement.
- Expand program coverage to more localities and more diverse service sectors (hospitality, tourism, hotels) and prepare for emerging sectors like logistics, digital, and renewable energy.
- Enhance the convergence program with DTI to capitalize on complementary strengths (DTI’s market linkages and NWPC’s productivity trainings) and avoid duplication.
- Pursue deeper collaboration with partner agencies, industry associations, and private organizations.
- Encourage broader MSME participation across all sectors, linking productivity gains to increased wage rates, potentially by exploring a model similar to Singapore’s progressive wage model.
- Advocate for an amendment to the Productivity Incentives Act to formally incorporate all relevant agencies, including educational institutions, involved in strengthening productivity.

#### 4.3.2 Development Academy of the Philippines

The Development Academy of the Philippines (DAP) is mandated to provide information to raise awareness and understanding, and to help develop policies to address productivity gaps. It also provides training and consultancy services to improve productivity for both private and public sectors, although its primary focus is the government sector. This includes trainings such as Innovation Bootcamps, a capability-building program on the innovation laboratory, a productivity toolkit for AI developers, certification programs, a training course on interpreting and implementing quality management system (QMS) and knowledge management systems (KMS) requirements.

The DAP represents the Philippines in the Asian Productivity Organization (APO) as the designated National Productivity Organization (NPO). APO is an intergovernmental organization established in 1961 to increase productivity in the Asia-Pacific region through mutual cooperation and currently has 21 member economies. Whereas DAP is focused on the public sector, the NPOs in ASEAN and other countries in the region are geared towards assisting industry (Table 9).

**Table 9. Designated National Productivity Organization (NPO) in selected Asian economies**

National Productivity Organization	Brief description
<p><b>Cambodia</b>  <b>National Productivity Centre of Cambodia (NPCC)</b>            Established in 2004            Website: <a href="http://npcc-misti.com">http://npcc-misti.com</a></p>	<p>Cambodia joined the Asian Productivity Organization (APO) in May 2004. Following this, the Cambodian government established a National Productivity Unit (NPU). This unit initially operated within the Industrial Affairs Department of the General Department of Industry, which was part of the Ministry of Industry Mines and Energy (MIME), and served as the country's national productivity office. To emphasize the importance of productivity to the nation's growth, the government elevated the NPU to a departmental level within the General Department of Industry, MIME in July 2006. At this time, its name was officially changed to the National Productivity Centre of Cambodia (NPCC).</p> <p>The NPCC is working with the Cambodian government to boost the country's productivity and promote innovation. Its goal is to create a knowledge-based economy and improve the lives of its citizens. It provides training and workshops for enterprises in resolving productivity related issues such as improving work efficiency, quality, and product safety.</p>
<p><b>Republic of China</b>  <b>China Productivity Center (CPC)</b>            Established in 1955  <a href="http://www.cpc.org.tw">www.cpc.org.tw</a></p>	<p>Established in 1955, the China Productivity Center (CPC) was organized by 50 public and private commercial and industrial businesses. The CPC was a founding member of the APO in 1961, with the aim of helping Asia-Pacific nations incubate professional talent and promote international technology transfer. The CPC has combined innovative concept elements and its own ample business management force to integrate marketing modules and mechanisms with consultation to help the Republic of China's creative industry to grow, connect innovative products to the market, promote marketing, and identify new business opportunities and profitable operations. Its mission is to act as a promoter for the transformation of industry value chains, be the</p>

	<p>hub of a developing Chinese economic network, and become a leading brand in knowledge management. The mission of the CPC is to be a new paradigm pioneer, navigator in knowledge management, and promoter of value speed.</p>
<p><b>India</b> <b>National Productivity Council (NPC)</b></p> <p>Established in 1958</p> <p><a href="http://www.npcindia.gov.in">www.npcindia.gov.in</a></p>	<p>The National Productivity Council (NPC), established in 1958 as a registered society, is an autonomous, multipartite, non-profit organization promoting a culture of productivity in India. It is a founding member of the Tokyo-based Asian Productivity Organization (APO). The NPC's mission is to use modern services to boost India's national productivity, which will help the country achieve sustainable, inclusive socio-economic development.</p> <p>The NPC is governed by a council where employers, workers, government, and technical institutions have equal representation. The Union Minister for Industry serves as the NPC's President, with the Secretary (Industrial Policy and Promotion) as Chairman, and the Director General acting as CEO. The NPC's corporate headquarters are in New Delhi, supported by 13 regional professional management groups across major industrial centers and staffed by approximately 150 full-time professionals, supplemented by external specialists as needed.</p>
<p><b>Indonesia</b></p> <p><b>Directorate for Productivity Development, Ministry of Manpower</b></p> <p>Established in 1968</p> <p><a href="http://produktivitas.kemnaker.go.id/">produktivitas.kemnaker.go.id/</a></p>	<p>Indonesia's productivity movement began in 1968 with a Presidential Instruction (15/1968) that mandated the creation of the National Productivity Council and provincial Centers for Management and Productivity Development. Today, the movement is spearheaded by the Directorate for Productivity Development, which operates under the Directorate General for Vocational Training and Productivity Development within the Ministry of Manpower. According to the Minister of Manpower and Transmigration Regulation No. 14/MEN/2005, this Directorate's core responsibilities include: setting policies, developing standards, offering technical guidance (on management, innovation, systems, and institutional growth), improving human resources, and promoting a socially productive culture.</p> <p>It organizes awareness campaigns and provides tools, training, workshops, and consultancy to equip businesses and SMEs with knowledge and strategies to increase productivity. It launched a productivity information system called SIPRONI where companies independently measure productivity levels and give NPC access to data which will be used to help businesses improve.</p>
<p><b>Japan</b> <b>Japan Productivity Center (JPC)</b></p> <p>Established in 1955</p> <p><a href="https://jpc.jpc-net.jp/eng">https://jpc.jpc-net.jp/eng</a></p>	<p>Established in 1955, the Japan Productivity Center (JPC) is a non-profit, non-governmental organization dedicated to promoting the productivity movement in Japan. The JPC supports industries to implement modern management systems, foster labor-management cooperation, introduce effective renovation techniques, and train human resources. The JPC's Productivity Movement is backed by over 10,000 members, with participation from enterprises, corporations, labor unions, and other organizations.</p>

<p><b>Republic of Korea</b> <b>Korea Productivity Center (KPC)</b></p> <p>NPO established in 1957</p> <p><a href="https://www.kpc.or.kr/">https://www.kpc.or.kr/</a></p>	<p>The Korea Productivity Center (KPC) was initially founded by the private sector in 1957 to strengthen the Korean economy through productivity improvement. It was later re-established in 1986 as a special government-affiliated corporation under the Industrial Development Act. The KPC's mission is to systematically boost industrial productivity. It has evolved alongside the national economy and contributed to Korea's competitiveness. As the country's first specialized organization for education and consulting, the KPC supports sustainable development by providing integrated solutions to improve competitiveness of businesses and companies—including research, training, consulting, surveys, and certification.</p>
<p><b>Lao PDR</b> <b>Lao National Productivity Organization</b></p> <p>Established in 2002</p> <p><a href="https://msmepa.org/">https://msmepa.org/</a>.</p>	<p>The National Productivity Organization (NPO) of Lao PDR, previously called the Department of SME Promotion (DOSMEP), was renamed the Micro, Small and Medium Enterprise Promotion Agency (MSMEPA) on 15 November 2023. MSMEPA functions as a technical organization with the status of a ministerial department under the Ministry of Industry and Commerce. It serves as the executive agency responsible for promoting MSMEs and is comprised of seven divisions, one of which is the MSME Promotion Fund.</p>
<p><b>Malaysia</b> <b>Malaysia Productivity Corporation</b></p> <p>Established in 1962</p> <p><a href="http://www.mpc.gov.my">www.mpc.gov.my</a></p>	<p>The Malaysia Productivity Corporation (MPC), formerly the National Productivity Corporation, was established in 1962 through a partnership between the United Nations Special Fund and the Federal Government, with the ILO as executing agency. Guided by its vision to lead in productivity for global competitiveness and innovation, MPC delivers high-impact services that promote performance excellence and innovation. MPC supports business growth by driving productivity through strategic talent development, technology integration, and streamlined management systems. It also collaborates with stakeholders to address regulatory and policy barriers that hinder competitiveness and expansion.</p>
<p><b>The Philippines</b> <b>Development Academy of the Philippines (DAP)</b></p> <p>Established in 1973</p> <p><a href="http://www.dap.edu.ph">www.dap.edu.ph</a></p>	<p>The Development Academy of the Philippines (DAP) is a government-owned and -controlled corporation established in 1973, with the original charter created by Presidential Decree 205, amended by Presidential Decree 1061, and further amended by Executive Order 288.</p> <p>Mandate</p> <ol style="list-style-type: none"> <li>1. To foster and support the development forces at work in the nation's economy through selective human resources development programs, research, data collection, and information services, so that optimization of wealth may be achieved in a manner congruent with the maximization of public security and welfare;</li> <li>2. To promote, carry out, and conduct scientific, interdisciplinary, policy-oriented research, education, training, consultancy, and publication in the broad fields of economics, public administration, and political and social sciences, generally involving the study, determination, interpretation, and publication of economic, political, and social facts and principles</li> </ol>

	bearing upon development problems of local, national, or international significance; and 3. To discharge a regional role in initiating and catalyzing exchanges of ideas and expertise on development activities in the region of Asia and the Pacific.
<b>Singapore Productivity Centre (SGPC)</b>  Established in 1967  <a href="https://www.sgpc.sg/">https://www.sgpc.sg/</a>	The Singapore Productivity Centre (SGPC) is a wholly owned subsidiary of the Singapore Productivity Association and supported by Enterprise Singapore. It serves as a one-stop resource and competency hub especially focusing on the retail, food service, and hotel sectors. Its vision is to be the leading expert in enterprise excellence, guiding SMEs in charting growth roadmaps. SGPC offers consultancy, workshops, study missions, benchmarking, and industry insights, enabling enterprises to enhance productivity, foster innovation, and build capabilities for future readiness.
<b>Thailand Productivity Institute (FTPI)</b>  Established in 1994  <a href="http://www.ftpi.or.th">www.ftpi.or.th</a>	The Thailand Productivity Institute (FTPI), operating under the Ministry of Industry, is recognized as a leading body for advancing productivity and competitiveness. It delivers services including consultancy, training, research and development, and nationwide productivity promotion programs. Guided by the belief that systematic productivity enhancement drives sustainable development, FTPI aims to strengthen the global competitiveness of Thailand's industry and service sectors.
<b>Vietnam National Productivity Institute (VNPI)</b>  Established in 1994 (as Vietnam Productivity Center), 2014 (as Vietnam National Productivity Institute)  <a href="https://vnpi.vn/">https://vnpi.vn/</a>	The Vietnam Productivity Center was established in 1997 as the national productivity agency implementing programs and projects of the Asian Productivity Organization (APO) in Vietnam. It was later restructured as the Vietnam National Productivity Institute (VNPI). It has played a key role in enhancing the productivity and efficiency of organizations and enterprises. It supports ministries, agencies, and sectors in formulating policies that promote productivity growth and strengthen the country's economic competitiveness.  It promotes business innovation and productivity improvement by supporting the formulation of policies by providing training, human resource development programs, and consultancy services.

Source: APO (2021, 2025)

While DAP conducts regular government quality management programs for government agencies, which are annually funded by the Department of Budget and Management, it has also been involved in supporting the growth of MSMEs, such as in creating the MSME Development Plans 2017 to 2022 and 2023-2028. It is currently designing new courses for MSMEs under the Technology Management office, aside from the basic productivity and quality improvement training and public offerings that are also open to private industries to participate.

It also partners with government agencies and international agencies in conducting training that encompasses productivity improvement, such as its collaboration with APO in conducting business recovery and resilience assistance to small enterprises and critical sectors, providing production equipment and a series of orientation sessions for MSMEs affected by the COVID-

19 pandemic. Private companies and government agencies also tap them for resource persons to conduct training courses for them.

DAP has three main units: Training, Research, and Consulting assistance. Training and public offerings are general (e.g., quality circles, suggestion schemes, basic industrial engineering, total productive maintenance), and all types of sectors may benefit. Clients may also request a more customized package of services (may include assessment orientation, training, workshop, and technical guidance), which may span several months.

Issues on funding for free courses, limited demand from small businesses, and the implementation of the National Productivity Agenda are interrelated challenges that limit DAP efforts to enhance the productivity of firms. Even when such programs are available, many small businesses struggle to participate due to limited resources, lack of awareness, insufficient understanding of their training needs, or busy schedules. In addition, developing a National Productivity Agenda would provide a unified and harmonized framework to strengthen coordination and establish more systematic efforts among relevant institutions offering assistance and services to MSMEs, particularly in ensuring sustained funding, expanding reach to regions outside the NCR, and providing higher-quality services to boost the overall productivity of firms in both public and private sectors.

#### 4.3.3 Institute for Small-Scale Industries

The University of the Philippines Institute for Small-Scale Industries (UP ISSI) is an institution dedicated to supporting the advancement of the MSME sector. The Institute was initially established in 1966 through an agreement between the Philippines and the Royal Kingdom of the Netherlands. In 1969, it became an organic research and extension unit of the University of the Philippines through the Republic Act 6041. UP ISSI's fundamental function is the delivery of comprehensive research, training, and extension services focusing on business and management.

Its target beneficiaries are mainly MSMEs, MSME corporations, single proprietors, cooperatives, students, startups, entrepreneurs and aspiring entrepreneurs, women's groups, and entrepreneurship educators and mentors. The Institute also trains MSME enablers, including Government Organizations (GOs), Local Government Units (LGUs), Non-Government Organizations (NGOs), Financial Institutions, Industry Associations, International Partners, Trainers, Extension Officers, and other private entities.

#### **Functional divisions**

UP ISSI's activities are categorized into three major functional divisions. The Research Division (RD) produces policy papers that examine the internal mechanics of the MSME sector and the issues that impact it.

The Training and Entrepreneurship Education Division (TEED) training programs are sustained through paid courses that are conducted either face-to-face or online. One of these is the ladderized programs, which are regular programs focusing on the entrepreneurial management cycle: Starting, Growing, Maturing, and Sustaining. Participants are provided with modules based on their enrolled courses. After each module, they are assigned to sites where consultants will help them apply what they have learned. At the end of the course, they will present a report including analysis and recommendations. The division also provides

customized programs that are available nationwide. They also offer advocacy programs for free entrepreneurship programs to communities, young entrepreneurs, and students, such as the Communities of Practice for Entrepreneurship (COPE) Program, Building Entrepreneurial Skills Training (BEST) for the Youth, and Joint Entrepreneurship Extension Program (JEEP).

After availing or graduating from training programs, firms or organizations may request assistance from the Business Enterprise Development Division (BEDD) to implement the plans they have created from the training they have attended. BEDD offers mentorships, consultancy, and partnerships. The division is currently conducting the GABAY Project specifically for MSMEs under the aquaculture and agriculture sectors. Firms may also walk in for free services.

In addition, they also train large companies, particularly those that have MSMEs in their supply chain. Sometimes, these large companies fund projects and tap UP ISSI to train their MSME partners. The most in-demand courses they offer include the Productivity through Effective Supervision Course, Managers' Course, and Accounting for Non-Accountants Course. They also train LGUs to help them better assist SMEs through the Small Business Mentors' Training. Other courses include Data Analytics, Digital Marketing, and Aid 4 Business, in line with the push for digitalization.

### **Promoting services and sustaining operations**

To promote its services, UP ISSI utilizes its website, social media pages, and participation in local and international booths, trade fairs, and MSME events through the efforts of its External Affairs Cluster. They incentivize firms participating as integrated organizational survey and assessment sites by offering them a 50 percent discount on any UP ISSI training program. They have also started following up with participants to gather feedback and assess post-training improvements, and they plan to strengthen this initiative further.

Their resource persons come from both internal and external sources, including industry practitioners, professors, their professional network, former staff, and past participants who now serve as coaches. UP ISSI was also able to participate in some APO workshops and was granted funding from their proposal to train UP ISSI staff and MSMEs on leveraging AI for entrepreneurship development. Every year, they review the offered programs at least two months before the start of new cycles, consulting program managers, resource persons, and past participants, and referring to completion reports for continuous improvement.

Current issues include securing funding to enable participants from outside the National Capital Region (NCR) to attend, as well as for UP ISSI to fully offer its services. The increasing demand from MSMEs is also a key concern, requiring efforts to raise their awareness and appreciation of attending capacity-building and productivity-enhancing programs, and the logistical challenge of setting up appropriate schedules. Incentivizing MSMEs, such as through tax incentives, may further increase this demand. Currently, the DTI has the MSME development plan; however, a more unified and harmonized approach is needed for providing training and assistance. Furthermore, to address job mismatch and ensure training and programs are relevant to the market, strengthened collaboration with the industry is crucial when reviewing current services and creating new offerings. Box 2 describes the respondents from a tracer study in 2017 from one of the courses being offered by UP-ISSI.

## Box 2. Managers Course Tracer Study

Based on the 2017 Managers Course Tracer Study of the UP-ISSI, among 118 respondents, the majority come from the NCR (53%), while 32 percent come from Region IV-A. In contrast, only 3 percent come from Visayas or Mindanao. The majority (67%) attained at least a bachelor's degree, and about 69 percent have experience in management before taking the course. The majority of sponsored respondents (39 out of 73 or 53%) come from various the services subsectors (i.e., Education, Professional, scientific, and technical activities; Wholesale and Retail trade; Financial and Insurance activities; Human health and social work activities; Information and communication; and Accommodation and food services activities), while 38 percent (28 out of 73) were from the Manufacturing sector.

In addition, the majority of employed respondents are from Metro Manila who have earned at least a bachelor's degree and are full-time permanent middle managers involved in production/operations in small or large companies. In contrast, the majority of those who are self-employed were involved in sales and marketing or corporate strategy in micro and small businesses in Metro Manila.

The geographical scope of participants is largely concentrated in Metro Manila, with only a few from the Visayas and Mindanao, likely due to distance, financial constraints, and limited awareness of the course. Most participants have management experience, hold middle-management positions, and possess at least a bachelor's degree, indicating the level of maturity the course requires. While participants come from both small and large companies, it is notable that microbusinesses are also interested in the Managers Course, highlighting its relevance even for micro and small enterprises, particularly for self-employed individuals.

The course has high potential to attract more participants by increasing awareness and improving accessibility in regions outside the NCR, micro and small businesses, and self-employed participants. This would, consequently, require enhanced capacity in facilities, human resources, digital technology, and a stable funding source to sustain operations and develop new courses, particularly in response to emerging needs across different services sectors.

### 4.3.4 Department of Trade and Industry

The Department of Trade and Industry (DTI) implements various programs designed to support MSMEs, with several key initiatives directly focused on enhancing their productivity, efficiency, and competitiveness. The various programs leverage different mechanisms—from direct provision of technology and equipment, to skills enhancement and operational training, and access to capital and market—to elevate the productive capacity and efficiency of MSMEs (DTI 2025):

#### **Enhancing productivity and efficiency**

The **Shared Service Facilities (SSF) Project** is recognized as one of DTI's key initiatives designed to raise the productivity and efficiency of MSMEs by expanding their access to appropriate technologies. Through shared-use arrangements, the project offers machinery, equipment, tools, systems, and the technical skills needed to operate them. These facilities enable beneficiaries to scale up production, enhance product quality, and consequently improve their sales performance and employment generation. As of December 2024, the program has

supported the establishment of 3,651 facilities nationwide and has contributed to the creation of roughly 300,000 jobs.

The **Kapatid Mentor Me (KMME) Program** adopts a coaching-and-mentoring framework to help micro and small enterprises grow. It delivers structured modules that introduce mentees to core business concepts and strengthen the competencies necessary for enterprise expansion and sustainability. Its seven-part “Enterprise” module covers fundamental areas such as product development, marketing, and operations management. One of its components, *Adopt-an-SSF*, further assists micro-entrepreneurs by linking them to nearby Shared Service Facilities. Overall, the program aims to strengthen entrepreneurial capabilities by improving access to Mentorship, Money, and Market (the 3Ms).

The **SME Roving Academy (SMERA)** serves as a continuing education platform for MSMEs, equipping them with the skills needed to compete in both domestic and global markets. It brings together business development services at the local and national levels and offers capacity-building activities that enhance operational competencies and strategic readiness, helping entrepreneurs increase their output and prepare for broader market engagement.

The **Youth Entrepreneurship Program (YEP)** focuses on developing young entrepreneurs. Its *Youth Match* component helps youth-led enterprises acquire appropriate machinery and equipment to improve their productivity. It also connects young entrepreneurs to market promotion activities and investment opportunities to facilitate business growth.

The **Enterprise Digital Upgrading Program (EDUP)**, under the DTI Competitiveness and Innovation Group, supports the digital transformation of MSMEs to enhance productivity, drive innovation, and strengthen competitiveness. Recently, the DTI opened applications for enterprises to undergo assessment using the Smart Industry Readiness Index (SIRI). This assessment will be offered to qualified firms, particularly those belonging to sectors identified under the current Tatak Pinoy Strategy<sup>7</sup>, including information technology and business process management (IT-BPM industry).

### **Facilitating resources, market access, and operations**

The **Negosyo Center Program**, which involves setting up Negosyo Centers nationwide, plays a key role in improving MSMEs’ access to various development services. By simplifying business processes and offering support services, these centers help create an enabling environment that allows MSMEs to concentrate on growth, efficiency, and scaling up.

The **Tatak: Matatag Na Negosyo (TMN)** initiative is a collaborative effort aimed at helping micro retailers—particularly small shops such as sari-sari stores and *carinderias* (small eatery)—become more resilient and sustainable. Its package of interventions is designed to strengthen their business capabilities, upgrade daily operations, and build stronger connections with suppliers and markets. These improvements in supply chain management and operational practices directly contribute to higher productivity and efficiency.

---

<sup>7</sup> [https://www.dti.gov.ph/sdm\\_downloads/tatak-pinoy-act-powers-first-ever-national-dustrial-policy-philippine-enterprises](https://www.dti.gov.ph/sdm_downloads/tatak-pinoy-act-powers-first-ever-national-dustrial-policy-philippine-enterprises)

**Go Lokal!** serves as a market access platform developed by DTI to help MSMEs enter mainstream retail. It assists entrepreneurs in developing market-ready merchandise, enhancing product quality, and ensuring their goods meet the standards of larger commercial outlets.

The **Livelihood Seeding Program – Negosyo Serbisyo sa Barangay (LSP-NSB)** program delivers government support directly to communities, focusing on MSMEs affected by disasters or crises. It facilitates business registration and offers business advisory services and business information and advocacy, and provides livelihood kits amounting to PHP5,000 to PHP8,000 to help eligible individuals restore and strengthen their enterprises after calamities.

The **Pondo sa Pagbabago at Pag-asenso (P3)** financing program offers micro entrepreneurs access to low-cost loans ranging from PHP 5,000 to PHP 200,000. Borrowed funds must be used for business expansion or replenishing supplies, enabling micro enterprises to increase production levels and scale up operations, thereby boosting their output.

#### *4.4 Technology assistance programs for enterprises and workers*

- Small Enterprise Technology Upgrading Program (SETUP)

The Department of Science and Technology (DOST) focuses on improving productivity through technology and innovation through its Small Enterprise Technology Upgrading Program (SETUP) to assist SMEs, including ICT and electronics sectors, health and wellness sector, and other identified priority sectors. The program shall provide the necessary technologies of participating firms, human resource training, consultancy, and technical services. It also links with other relevant government agencies and private institutions to assist MSMEs with raw material sourcing, marketing, technical or entrepreneurial training, equipment design and fabrication, and financing. In 2024, the project provided 12,067 technology interventions and 15,629 science and technology (S&T) assistance services to various firms and S&T organizations. Additionally, 560 firms received innovation-enabling funding, leading to the creation of over 10,000 jobs. (DOST n.d.; DEPDev 2025b).

- Shared Services Facilities (SSF)

The DTI's Shared Service Facilities (SSF) Program provides MSMEs with access to modern machinery, equipment, and technology under a shared system to improve efficiency and competitiveness. From January to October 2024, the Shared Service Facility (SSF) program, with cooperation of private sectors and other relevant institutions, successfully established 53 facilities (7 upgraded), supporting over 26,000 MSMEs and creating roughly 23,600 jobs, largely in regional areas. To enhance future service delivery, the DTI is pursuing two key strategies. First, they are developing a digital Monitoring and Evaluation (M&E) tool, operational by the first quarter of 2025, to standardize data collection, improve services, and increase beneficiaries. Second, the DTI – National Capital Region Office plans to organize a Mapping, Engagement, and Enrollment Training (MEET) for SSFs to improve their capacity to identify beneficiaries' needs, enhance collaboration with stakeholders, improve services, and reach more beneficiaries. The DTI Philippine Trade Training Center (DTI-PTTC) and the DTI Bureau of Small and Medium Enterprise Development (DTI-BSMED) will enhance the rollout of Competency Training Courses (CTCs) for SSF Managers and Technical Staff to strengthen their expertise in facility management, boost operational efficiency, and upgrade their digital competencies (DEPDev 2025b).

However, the implementation of SSFs is challenged by the inefficient utilization of its budget and persistent operational non-compliance by project cooperators. Despite the program's funding rising significantly from PhP80.4 million in 2023 to PhP646.7 million in 2025, the DTI-OSEC only managed a 65.3 percent disbursement rate for the MSME Development Program in 2024, raising concerns about the feasibility of the proposed budget reduction for 2026. The Commission on Audit (COA) has repeatedly flagged implementation failures, including the non- or underutilization of the facilities and the DTI's failure to strictly enforce agreements. COA has specifically urged the agency to investigate the causes of underutilization, remind cooperators of their obligations, terminate non-compliant projects, and strictly evaluate ownership transfer eligibility, all of which point to a need for stronger performance and sustainability from a project that has been running since 2013 (CPBRD 2025).

- Startup Grant Fund (SGF) Program

Mandated by the Innovative Startup Act (RA 11337), the DTI, DOST, and DICT are the lead agencies responsible for implementing the Startup Grant Fund (SGF) to promote research and development within the Philippine startup ecosystem. The DICT, through its ICT Industry Development Bureau (IIDB), operationalizes this by running the Startup Grant Fund Program, which specifically targets startups and SMEs in ICT-enabled sectors, providing them with funding, as well as opportunities for capacity-building, network-building, and overall development. The first cohort, launched in June 2024, is composed of 11 startups with financial aid ranging from PHP500,000 to PHP1,000,000.

The DOST, through its attached agencies, is also leveraging the SGF. The Philippine Council for Health Research and Development, for example, created the Startup Research Grant Program, with its first startup grantees in 2021. The program is designed to give financial assistance for R&D activities of health-related startups. It focuses on essential milestones, including overcoming R&D roadblocks, securing intellectual property (IP), establishing initial market traction, refining the business model, and scaling up the enterprise (DOST-PCHRD, n.d.). As another example, Packworks received funding under the DOST-PCIEERD Startup Grant Fund (SGF) program in 2024 to support micro-retailers, particularly sari-sari stores, in adopting AI-powered precision marketing tools to increase sales and improve operational efficiency. The project delivers AI-driven insights and recommendations to retailers, in collaboration with ST Telemedia Global Data Centres (Philippines) for the deployment of large-scale machine learning models and Ateneo de Manila University's Business Insights Laboratory for Development (BUILD) for data warehousing and business intelligence solutions. Among the 300 stores using its AI tools, daily merchandise value increased by 46 percent, while total sales rose by 17 percent (The Philippine Star 2025).

The implementation of the law is constrained by limited dedicated funding and fragmented coordination among key government agencies. Since the enabling legislation did not include a specific budget allocation, agencies, such as the DOST, are forced to divert funds from existing R&D projects. This limits their capacity to expand support, particularly in areas outside Metro Manila. The problem is further compounded by weak coordination among key agencies—DOST, DICT, and DTI. Overlapping mandates, a lack of dedicated personnel, and scattered programs have left startups unsure of where to seek assistance, impeding the sector's growth (Dagooc 2025).

- Digital Transformation Centers (DTCs)

The Department of Communications and Technology (DICT) Digital Transformation Centers (DTCs) provide critical ICT capital to MSMEs by offering shared access to digital infrastructure such as computers, internet connectivity (e.g., satellite internet services), co-working spaces, and essential software tools. These centers are especially vital in underserved areas where broadband access and digital resources remain limited. DTCs also equip MSMEs with digital skills training, access to government e-services, and platforms for e-commerce, effectively reducing the cost and knowledge barriers to digital adoption. By serving as local hubs for digital transformation, DTCs help MSMEs leverage technology to improve productivity, access wider markets, and participate more actively in the digital economy (Serafica and Oren 2023).

However, sustainability remains a key issue for DTCs. Many centers depend on partner institutions or organizations in maintaining equipment, securing consistent operational funding, ensuring reliable connectivity, and keeping staff adequately trained. Without long-term support mechanisms and integration into broader digital infrastructure strategies, DTCs risk becoming underutilized or obsolete, limiting their ability to deliver lasting digital inclusion and economic resilience for MSMEs (Serafica and Oren 2023).

#### 4.5 Summary

The overall landscape of labor productivity policies in the Philippines is characterized by comprehensive legislative mandates and various implementing agencies. However, the effectiveness of these programs is often constrained by challenges such as fragmented coordination, limited dedicated funding, and difficulties in maintaining sustained, high engagement from the targeted MSME sector. While the government provides an array of programs and tools—such as the productivity toolbox, shared service facilities, and DTCs—their full potential is frequently undermined by a lack of seamless integration across agencies, programs, and stakeholders. This connectivity gap limits real-time information sharing, coordinated implementation, and integration of support services, making it difficult for MSMEs to access the right resources at the right time. Strengthening such linkages, along with ensuring long-term operational support, is therefore critical to translating policy intentions into tangible productivity gains.

Although each program is designed and delivered by specialists—or by trained specialists through a training-of-trainers approach—it is unclear whether the offerings are grounded in a systematic needs assessment. Additionally, firms themselves may be unaware of their actual needs (i.e., you don't know what you don't know). In addition, need does not necessarily translate into demand (willingness to pay). Micro and small enterprises may be unable or unwilling to invest in training, and the opportunity cost of time away from their business can be significant. Consequently, staff may attend only the first day and fail to complete the program, or they may not participate at all.

In terms of enhancing the productivity of the informal sector, one of the most effective strategies for extending productivity programs to them is through structured partnerships between large corporations and Micro, Small, and Medium Enterprises (MSMEs). This approach is highly strategic as it leverages the resources, expertise, and scale of large firms to provide essential benefits—including partnerships, training, and capacity-building programs—directly to smaller firms, many of which employ or operate in the informal economy. For these

programs to successfully penetrate and positively impact the dispersed informal workforce, key recommendations include the government's active engagement with established worker associations and cooperatives, such as the National Network of Informal Workers in the Philippines (PATAMABA). These organizations serve as crucial, trusted channels for both delivering and monitoring productivity programs, particularly those targeting low-productivity services sectors. The success of this collaboration hinges on gathering profiles and organizing informal workers to create targeted, impactful, and sustainable productivity improvements.

Sustaining programs can be challenging, particularly when leadership changes occur in initiatives involving multiple agencies, as a lack of support or buy-in from a new agency head may lead to delays or even discontinuation. While some programs, such as UP-ISSI's, have undergone formal evaluation, most accomplishments are measured primarily by the number of participants or beneficiaries. Tripartite councils play a valuable role by ensuring representation from workers, businesses, and government. To enhance coordination and effectiveness, there is a pressing need for a national productivity agenda that can prevent duplication of efforts and address gaps in support.

## **5 Proposed umbrella Theory of Change for improving labor productivity in services**

The growth of the Philippine economy has been service sector-led, and while employment has increased, this has occurred mostly in subsectors of services where labor productivity and wages are relatively low. As enhancing productivity in labor-absorbing services is essential for both growth and equity, a comprehensive and coherent set of strategies is needed. Based on the discussions from the previous chapters, Figure 19 presents the high-level Theory of Change to achieve sustained increases in labor productivity across diverse services industries in all regions.

**Figure 19. Umbrella Theory of Change to Improve Services Productivity**

<b>Problem Statement:</b> <i>The growth of the Philippine economy has been service sector-led and while employment has increased, this has occurred mostly in subsectors of services where labor productivity and wages are relatively low. Enhancing productivity in labor-absorbing services is essential for both growth and equity.</i>				
<b>Core strategies</b>				
Management quality and practices		Business innovation	Workforce development	Technology adoption
<b>Inputs</b>	<b>Activities and outputs</b>	<b>Outcomes</b>		<b>Impact</b>
<ul style="list-style-type: none"> <li>- Funding/subsidies/grants/ loans</li> <li>- Existing training finance</li> <li>- Existing internet, digital services, and devices</li> <li>- Existing management and industry experts</li> <li>- Existing innovation hubs and infrastructure</li> <li>- Existing information sources for innovation</li> </ul>	<ul style="list-style-type: none"> <li>- Design and offer of business services for firms</li> <li>- Design and offer of training programs for management</li> <li>- Design and offer of training program for workers</li> <li>- Design and offer of capability building for digitalization</li> <li>- Design of additional and improved training finance</li> <li>- Design and strategic deployment of additional internet and digital services</li> <li>- Training and orientation of additional management and industry experts</li> <li>- Design and strategic deployment of additional innovation hubs and infrastructure</li> <li>- Design and strategic deployment of additional information sources for innovation</li> </ul>	<ul style="list-style-type: none"> <li>- Utilization of business services by firms and increased innovation activities</li> <li>- Utilization of training, adoption of management practices and improved management quality and practices</li> <li>- Utilization of training, application of learning from workers’ training</li> <li>- Utilization of capability building and application of digital transformation in production processes and workflows</li> <li>- Utilization of information sources for innovation and increased innovation activities</li> </ul>		<p>Sustained increases in productivity across diverse service industries in all regions</p>
<b>Key risks / assumptions</b>		<b>Moderating and contextual factors</b>		
<ul style="list-style-type: none"> <li>- Incentive incompatibility risks</li> <li>- Strategic risks</li> <li>- Implementation risks</li> <li>- Sustainability and scalability risks</li> </ul>		<ul style="list-style-type: none"> <li>- Macroeconomic environment; regional economic conditions</li> <li>- Infrastructure in the region (electricity, roads, bridges, digital connectivity)</li> <li>- Competition environment (barriers to entry, expansion, and exit; trade and investment regime)</li> <li>- Ease of doing business at the national and local levels</li> <li>- Flexible input markets</li> </ul>		

Source: Authors

## 5.1 Core strategies

As discussed in Sec. 3.2, increasing the productivity of firms in the services sector will involve interventions that will harness the following:

- Management quality and practices
- Business innovation
- Workforce Development
- Technology Adoption

These core strategies are interrelated and reinforce each other.

## 5.2 Design, implementation, and risks

### 5.2.1 Inputs

To carry out the activities that are in line with the core strategies, various human, financial, digital, and information resources are needed. It is assumed that these inputs are existing resources that can be readily tapped.

- Funding/subsidies/grants/ loans
- Existing training finance
- Existing internet, digital services, and devices
- Existing management and industry experts
- Existing innovation hubs and infrastructure
- Existing information sources for innovation

### 5.2.2 Activities and outputs

Activities convert inputs into outputs, which can be goods or services offered. Additional resources generated from inputs are additional outputs. The following are possible activities that could be delivered by different agencies and stakeholders:

- Design and offer of business services for firms
- Design and offer of training programs for management
- Design and offer of training programs for workers
- Design and offer of capability building for digitalization
- Design of additional and improved training finance
- Design and strategic deployment of additional internet and digital services
- Training and orientation of additional management and industry experts
- Design and strategic deployment of additional innovation hubs and infrastructure
- Design and strategic deployment of additional information sources for innovation

Current interventions by various government agencies were presented in Chapter 4. Other examples of specific activities were discussed in Sec 3.3. on options for expanding productive employment in services.

### 5.2.3 Key risks/assumptions

Risks are outside the total control of the project team. They are conditions that are assumed to hold true or are expected to already be in place (a “given”) as one designs and implements an activity. As such, they are also considered risks depending on the degree of uncertainty or probability underlying the assumption that could compromise the successful delivery of the desired outputs from the activities.

**Incentive incompatibility risks** occur when incentives between implementers (agencies implementing the programs as well as the beneficiaries) and society (the principal) are not aligned. The inputs may not be transformed into meaningful activities and outputs if the implementers are not convinced about the merit of society’s objectives, or they may serve their own interests rather than society’s interests. Similarly, beneficiaries may find that the interventions are not what they need to improve productivity.

Other possible risks identified in past reviews of various ALMPs and the KIIs conducted for this study (Sections 4.2 and 4.3 of this paper) include:<sup>8</sup>

**Strategic risks** could limit the potential impact of the investment or intervention –

- Change in policy priorities of agencies that puts at risk the continued relevance of the intervention
- Change in leadership that places a lower priority on interventions, undermining inter-agency initiatives
- Lack of buy-in at the sub-national level (e.g., regional development councils, LGUs)

**Implementation risks** inhibit the ability of an implementing agency to provide inputs or deliver an activity as designed –

- Availability of experts
- Lack of or weak targeting system to identify firms, workers, and/or specific occupations

**Sustainability/scalability risks** limit the potential of the intervention to continue beyond the initial funding. They also limit the potential for scale-up, including the introduction of successful activities to other regions or the rest of the country –

- Budget cuts from the government
- Support from various types of partnerships (e.g., private-public, government-academe-industry, government-workers-employers, multilateral agencies)

---

<sup>8</sup> General types of risks/assumptions are from Unitaid 2021 Results Framework (p. 9) (<https://unitaid.org/uploads/Unitaid-Results-Framework.pdf>)

### 5.3 Expected change and moderating factors

#### 5.3.1 Outcomes

Outcomes consist of the utilization of goods and services (intermediate outcome) and the results of such utilization (final outcome). Given the different activities and outputs, the outcomes could include:

- Utilization of business services by firms and increased innovation activities
- Utilization of training, adoption of management practices, and improved management quality and practices
- Utilization of training, application of learning from workers' training
- Utilization of capability building and application of digital transformation in production processes and workflows
- Utilization of information sources for innovation and increased innovation activities

It is important to differentiate the intermediate (short-term) outcome from the final (medium-term) outcome, as offering a particular activity (e.g., training) does not automatically imply utilization, and utilization may not generate the intended outcomes, for example, because of faulty design.

#### Outcome measures

The possible performance measures to determine if the desired outcomes have been achieved in the short (1-2 years) to medium (3-5 years) term are shown in Table 10.

**Table 10. Outcome indicators**

Outcome	Possible outcome measures and sources
Utilization of business services by firms and increased innovation activity	Number of firms utilizing the offered business services Number of firms utilizing the offered business services and introducing innovations in their production
Utilization of training, adoption of management practices, and improved management quality and practices	Number of firms utilizing the management training offered Number of firms that utilized management training and applied lessons Number of firms that utilized management training, applied lessons and improved management quality and practices  Management practices in this establishment; Service provision targets (Source: WB Survey of Establishments; <a href="https://microdata.worldbank.org/index.php/catalog/6464">https://microdata.worldbank.org/index.php/catalog/6464</a> ) Establishments with Productivity Improvement Programs (PIPs) (Source: Integrated Survey on Labor and Employment)

Utilization of training and application of learning from workers' training Enhanced workforce capabilities	Number of firms and workers participating in workers' training Number of firms and workers participating in workers' training who applied their lessons Number of firms and workers participating in workers' training who applied their lessons and improved productivity  Job-Related Trainings in Establishments; Occupational Shortages and Surpluses (Source: Integrated Survey on Labor and Employment)
Utilization of capability building and application of digital transformation in production processes and workflows	Number of firms utilizing the offered capability building and application of digital transformation Number of firms utilizing the offered capability building and application of digital transformation, applying their lessons to their production process and workflows  Diffusion of ICT into establishments from various sources (Source: Survey on Information and Communication Technology (SICT))
Utilization of information sources for innovation and increased innovation activities	Number of firms utilizing information for innovation Number of firms utilizing information for innovation and increased their innovation activities  Innovation active firms, innovation outputs (Sources: WB Survey of Establishments; Philippine Survey of Innovation Activities of Establishments)

Source: Authors' compilation

### 5.3.2 Impact

Based on the problem statement, the impact desired (long-term outcome) is to increase labor productivity in the services sector. Moreover, improvements must be achieved on a sustained basis in all subsectors and across all regions.

#### Impact measures

The possible measures and data sources to determine whether improvements in labor productivity across all subsectors and regions have been achieved in the medium (3 to 5 years) and long-term (more than 5 years) are shown in Table 11.

**Table 11. Impact indicators**

Impact	Possible impact measures and sources
Sustained increase in labor productivity across diverse service industries in all regions	See Annexes 1 & 2

### 5.3.3 Moderating or contextual factors

Whether or not the final outcomes and impact will be attained depends not only on the set of programs pursued but also on external factors. As discussed previously, particularly in Sections 3.2.5 and 3.3, there are contextual factors that may either reinforce or weaken the effects of the productivity improvement interventions on the performance of the industries. The following are especially relevant to the Philippine services sector:

- Macroeconomic environment; regional economic conditions
- Availability, accessibility, and quality of infrastructure in the region (electricity, roads, bridges, digital connectivity)
- Competition environment (barriers to entry/expansion/exit; trade and investment regime)
- Ease of doing business at the national and local government levels
- Flexible input markets

Apart from the macroeconomic environment, regional conditions or locational disadvantages can also contribute to the performance of services subsectors (Seráfica et al. 2021). In terms of policies, the key reforms that have been introduced in recent years, as presented earlier, are expected to lead to productivity gains. The Public Service Act amendment and the Konektadong Pinoy Act could create spillover effects from FDI and accelerate digitalization through improved connectivity, respectively. However, the intended effects of these reforms may not be realized if, for example, there are issues or delays in implementation due to legal challenges, inadequate implementing rules and regulations, or ineffective regulatory institutions.

## 6 Conclusion and recommendations

***Enhancing productivity in labor-absorbing services is an essential priority for both growth and equity.*** The growth of the Philippine economy has been predominantly led by the services sector. However, this growth pattern has resulted in increased employment primarily within subsectors characterized by relatively low labor productivity and wages. Given that the services sector accounts for the highest share of GDP and employment among major economic sectors, enhancing productivity in labor-absorbing services is essential for both growth and equity.

***Improving productivity in certain subsectors needs to be prioritized in terms of government support.*** Low productivity sectors (Wholesale and Retail Trade, Repair of Motor Vehicles and Motorcycles, Transportation and Storage, Accommodation and Food Service Activities, and Other Services) account for 73.56 percent share of total employment in the services sector (44.6 percent of overall total employment, based on the LFS August 2024 round) and primarily employ low- to medium-skilled occupations. The average wage in these subsectors is also below average. Furthermore, a vast majority of employed women (68%) are in the services sector, especially in the low productivity sector, such as Wholesale and Retail Trade, Accommodation and Food Service Activities, and Other Services. Improving the productivity of these sectors while ensuring women benefit from, rather than are disadvantaged by, productivity gains is essential to closing the gender gap. Services that are not necessarily big employers, but have high forward linkages, especially to the manufacturing sector, should also be a focus of policy reforms, as productivity improvements in these subsectors have positive spillover effects to the rest of the economy.

***A mix of strategies is needed to enhance the capabilities of firms and workers, and to incentivize them to upgrade.*** Services possess certain qualities such as intangibility, non-storability, and simultaneity of production and consumption, which can affect productivity performance. Due to various forms of market failures in the sector, the provision of services tends to be highly regulated as well. Firms in the services sector can overcome challenges to productivity by focusing on management quality and practices, business innovation, workforce development, and technology adoption. Although beyond the control of the firm, broader structural reforms can help create an operating environment that is conducive to upgrading.

Different government agencies provide various types of assistance to workers and MSMEs. A strategic framework that integrates key policy areas—labor market, enterprise and industry development, technology, innovation, and structural reform—can help maximize the impact of public interventions towards increasing productivity in services.

***The high-level Theory of Change (ToC) describes the pathways to increase labor productivity in services, which can guide the identification, design, and implementation of specific interventions.*** Services are heterogeneous and differ in terms of skill and capital intensity, tradability, intersectoral linkages, etc. A one-size-fits-all strategy will not be effective as the core strategies may not all be applicable to certain services or relevant to specific firms, depending on the stage of a firm’s lifecycle. A logic model, such as a theory of change, provides the government a strategic framework to more effectively identify pathways to connect interventions to desired outcomes, rationalize its investments to assist firms and workers, and adopt appropriate policy levers.

***Specifically, initiatives must be evaluated using productivity metrics.*** The ToC can be used by national government agencies as well as the local government units (LGUs) to design programs and integrate productivity objectives in their initiatives. It allows them to zoom in on specific issues while still being guided by the overall productivity goal. Highlighting the extent of the problem for specific subsectors could also justify the allocation of resources towards programs with a higher potential for productivity impact in services.

***The ToC can be tailored to the needs of specific service industries, groups, or regions.*** Industry experts can help identify appropriate digital technologies and design productivity improvement activities related to industry-specific quality standards. As discussed in Sec 3.3, innovative programs should target various groups in the informal sector too, and these could be delivered through local associations as described earlier. Regions can also focus on specific subsectors based on current productivity levels (Annex 2) or priority industries as identified in their respective regional development plans (e.g., tourism, creative sector, logistics). The tourism sector in particular offers significant opportunities for increasing productivity, given that tourism markets are characterized by product differentiation and encompass key subsectors with low productivity.

***Given the dynamic nature of productivity, which is influenced by various factors, evolving risks, and rapid technological changes, sustained research, analysis, and policy-relevant discussion remain crucial. Areas for further research may include:***

- Analysis of contextual factors affecting productivity growth, especially between sectors (e.g., remaining barriers to entry, exit, and expansion; flexibility of input markets, particularly labor) to recommend areas for structural reform in product and input markets, including implications for passive labor market policies.

- Analysis of the impacts on productivity of emerging technologies (e.g., AI, cloud computing, and big data) and new business models enabled by digitalization and platformization.
- Review of the effectiveness of the current institutional arrangements for the delivery of the various ALMPs and other productivity enhancement programs, with a view to reducing various strategic, implementation, and sustainability/scalability risks. According to the 2023 list of establishments from the PSA, there are 1.08 million establishments in the services sector, of which 99.73 percent are MSMEs based on the number of employees.<sup>9</sup> Given the scale of the sector and the size of potential beneficiaries, better targeting of interventions would also be needed.
- To address regional disparities in services productivity, analysis of the infrastructure gaps (in terms of availability, accessibility, and quality) and regulatory impediments at the local level, particularly for non-tradable and highly regulated services such as land transport and logistics.
- Apart from standard measures of productivity based on gross value added, identify other outcome measures which may be non-monetary in nature but are indicative of productivity improvements that are relevant to a specific service (e.g., indicators applicable for non-market services such as health or education; quality indicators).
- Laws aimed at supporting enterprises may also inadvertently affect incentives to upgrade, which could then have unintended consequences on productivity. For example, Republic Act No. 9178, or the Barangay Micro Business Enterprises Act of 2002, provides various tax and non-tax incentives such as exemption from income taxes, exemption from the minimum wage law, and access to technology, training, and market support from the government. To qualify and continue to enjoy these benefits, however, the total assets of the enterprise, excluding the land where the business operates, should not exceed Three Million Pesos (P3,000,000.00). The impact of the law in encouraging the formation and growth of barangay micro business enterprises could be examined.<sup>10</sup>

These research directions underscore the need for a more comprehensive and multidimensional approach to productivity analysis. Addressing these areas can help generate more robust evidence to inform productivity-enhancing policies and programs.

---

<sup>9</sup> The list of establishments excludes open stalls in shopping stalls in shopping centers; sari-sari stores with no regularly paid employee; jeepney and AUV (“FX”) operation (if without business office); tricycle, calesas, pedicabs operation, among others.

<sup>10</sup> This issue was raised by one of the partner agencies of PIDS during its recent research planning workshop.

## 7 References

- Administrative Order No. 36. 2025. Establishing the education and workforce development group. Manila: Malacanang Palace.
- Aleksynska, M., J. Berg, D. Foden, H. Johnston, A. Parent-Thirion, and J. Vanderleyden. 2019. Working conditions in a global perspective. Geneva: International Labour Organization & European Foundation for the Improvement of Living and Working Conditions. <https://www.ilo.org/publications/major-publications/working-conditions-global-perspective> (accessed on November 11, 2025).
- The Annie E. Casey Foundation 2022. Developing a Theory of Change: Practical Guidance. Baltimore, MD. <https://www.aecf.org/resources/theory-of-change> (accessed on February 15, 2025).
- APO. 2021. Reason for growth: 60 years of Asian productivity. Asian Productivity Organization. <https://doi.org/10.61145/IVJR4191> (accessed on October 14, 2025).
- APO. 2025. APO members. Asian Productivity Organization. <https://www.apo-tokyo.org/directory/> (accessed on October 14, 2025).
- Aquino, G.A. and R.R. Seva. 2017. Mental Workload Assessment of Jeepney Drivers. Presented at the DLSU Research Congress, June 20 to 22, De La Salle University, Manila, Philippines. <https://www.dlsu.edu.ph/wp-content/uploads/pdf/conferences/research-congress-proceedings/2017/HCT/HCT-II-027.pdf> (accessed on October 14, 2025).
- Asian Productivity Organization. 2023. Policies For Enhancing Productivity with New Skills. <https://www.apo-tokyo.org/wp-content/uploads/2023/10/Policies-for-Enhancing-Productivity-with-New-Skills.pdf> (accessed on September 28, 2025).
- Aubert, J.E., D.H.C. Chen, C.J. Dahlman, P. Dubarle, T. Gaudin, R. Kim, Y. Kuznetsov, K. Larsen, T. Leray, F.J. Theus, A. Utz, D. Van Welsum, and J. Justine. 2010. Innovation policy: a guide for developing countries 1. Washington DC: World Bank. <http://documents.worldbank.org/curated/en/251181468340760891>
- Baldwin, R., R.B. Freeman, and N. Theodorakopoulos. 2024. “Deconstructing Globalization: The Future of Trade is in Intermediate Services”, *Asian Economic Policy Review* 19(1): 18-37.
- Ballesteros, M. and D.C. Israel. 2014. Study of Government Interventions for Employment Generation in the Private Sector. PIDS Discussion Papers No. 2014-28
- Baumol, W.J. 1967. Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis. *The American Economic Review*, Vol. 57, No. 3, pp. 415-426. Philippine Institute for Development Studies.
- Bayudan-Dacuycuy, C.G. and L.B. Dacuycuy. 2021. Labor Market Structures, Pay Gap, and Skills in the Philippines. PIDS Discussion Papers No. 2021-28. Philippine Institute for Development Studies.
- Bayudan-Dacuycuy, C.G. and R.B. Serafica, Editors. 2023. *Critical Issues in the Philippine Digital Economy*. PIDS Book No. 2023-03. Philippine Institute for Development Studies.
- Benson, A. and K. Shaw. 2025. What Do Managers Do? An Economist's Perspective. *Annual Review of Economics* 17:635-664. <https://doi.org/10.1146/annurev-economics-082222-073303>
- Betcherman, G. 2015. Labor Market Regulations: What do we know about their Impacts in Developing Countries? *The World Bank Research Observer* 30(1):124-153.
- van Biema, M. and B. Greenwald. 1997. Managing Our Way to Higher Service-Sector Productivity Government policy and regulation Magazine (July -August 1997) Article.

- <https://hbr.org/1997/07/managing-our-way-to-higher-service-sector-productivity> (accessed on March 9, 2025).
- Brown, A.J.G. and J. Koettl. 2015. Active labor market programs - employment gain or fiscal drain? *IZA Journal of Labor Economics* 4:12. DOI 10.1186/s40172-015-0025-5.
- Cerutti, Paula Maria; Fruttero, Anna; Grosh, Margaret Ellen; Kostenbaum, Silvana; Oliveri, Maria Laura; Rodriguez Alas, Claudia P; Strokova,Victoria. (2014). Social assistance and labor market programs in Latin America: methodology and key findings from the social protection database (English). Social protection and labor discussion paper; no. 1401 Washington, DC: World Bank Group. <http://documents.worldbank.org/curated/en/498461468326377129>
- Cirera, X. and W.F. Maloney. 2017. The Innovation Paradox: Developing-Country Capabilities and the Unrealized Promise of Technological Catch-Up. Washington. DC: World Bank. <http://hdl.handle.net/10986/28341>
- Cirera, X., J. Frías, J. Hill, and Y. Li. 2020. A Practitioner’s Guide to Innovation Policy. Instruments to Build Firm Capabilities and Accelerate Technological Catch-Up in Developing Countries. Washington, DC: World Bank.
- CPBRD. 2025. Agency Budget Notes 2025-01: Department of Trade and Industry FY 2026. Congressional Policy and Budget Research Department, House of Representatives. <https://cpbrd.congress.gov/wp-content/uploads/2025/08/ABN2025-01-DTI-FY2026.pdf> (accessed on October 14, 2025).
- Cusolito, A.P. and W.F. Maloney. 2018. Productivity Revisited: Shifting Paradigms in Analysis and Policy. World Bank. <http://hdl.handle.net/10986/30588> License: CC BY 3.0 IGO.
- DBM. 2025. *National Expenditure Program: Fiscal Year 2026*, Volume II, XVII Department of Labor and Employment, E. National Wages and Productivity Commission. Department of Budget and Management (accessed on September 11, 2025).
- De Dios, E.S. and J.G. Williamson. 2014. “Has the Philippines Forever Lost its Chance at Industrialization”, *Philippine Review of Economics* 51(2): 47-66.
- De Dios, E.S. and J.G. Williamson. 2015. “Deviant Behavior: a Century of Philippine Industrialization”, Chapter 21 of Balisacan, A., Chakravorty, U., and Ravago, M. L. (eds.) *Sustainable Economic Development: Resources, Environment and Institutions*. Tokyo: Academic Press.
- De Dios, E.S. and P.A.P. Tũaño. 2022. Social differentiation: The middle class and its discontents. Chapter 16 in *Pro-poor development policies: Lessons from the Philippines and East Asia*, edited by H. Hill, M.V. Ravago, and J.A. Roumasset. Singapore: Institute of Southeast Asian Studies; Los Baños: SEARCA.
- de Nicola, F., A. Mattoo, and J. Timmis. 2025. Firm Foundations of Growth: Productivity and Technology in East Asia and Pacific. *East Asia and Pacific Development Studies*. Washington, DC: World Bank. doi: 10.1596/978-1-4648-2200-1. License: Creative Commons Attribution CC BY 3.0 IGO.
- Dagooc, E.M. 2025. Startup sector faces funding and coordination challenges. *The Freeman*. October 4. <https://www.philstar.com/the-freeman/cebu-business/2025/10/04/2477405/startup-sector-faces-funding-and-coordination-challenges> (accessed on November 03, 2025).
- DEPDev. 2025a. PH ‘Trabaho Para sa Bayan’ Plan to guide government toward a dynamic labor market, more quality jobs. Department of Economy, Planning, and Development. <https://depdev.gov.ph/march20251fs/> (accessed on October 14, 2025).
- DEPDev. 2025b. Philippine Development Report 2024. Department of Economy, Planning, and Development. <https://depdev.gov.ph/wp-content/uploads/2025/01/PDR2024.pdf> (accessed on October 13, 2025).

- DOST. n.d. Brochure: SETUP: Small Enterprises Technology Upgrading Program. Department of Science and Technology. [https://www.dost.gov.ph/phocadownload/Downloads/Resources/Quick\\_Links/SETUP\\_Brochure-1-2.pdf](https://www.dost.gov.ph/phocadownload/Downloads/Resources/Quick_Links/SETUP_Brochure-1-2.pdf) (accessed on October 08, 2025).
- DTI. 2025. Business center: Programs and Projects. Department of Trade and Industry. <https://www.dti.gov.ph/dti-business-center/dti-programs-projects> (accessed on December 10, 2025).
- Epetia, M.C.F. and I.C.F. Villena. 2023. Responding to the changing needs of the labor market: Overview of the country's TVET. PIDS Policy Note No. 2023-10. Philippine Institute for Development Studies.
- Fedi, L. and E.H. Ezzahid. 2024. Productivity measurement and analysis: A guidance note, Geneva: International Labour Office. <https://www.ilo.org/publications/productivity-measurement-and-analysis-guidance-note> (accessed on November 3, 2025).
- Flabbi, L. and R.V. Gatti. 2018. A primer on human capital. World Bank Policy Research working Paper No. 8309. Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/514331516372468005>
- Fredriksson, D. 2021. Reducing Unemployment? Examining the Interplay between Active Labour Market Policies. *Social Policy & Administration* 55(1):1–17. doi: 10.1111/spol.12606 (accessed on March 24, 2025).
- Generalao, I.N.A. 2024 Revamping enterprise-based training in the Philippines: Addressing barriers and disincentives to industry involvement. PIDS Policy Note No. 2024-10. Philippine Institute for Development Studies.
- Generalao, I.N.A., P.J.M. Lorenzo, C.J.F. Eñate, F.C.G. Dumalaog, J.J.S. Ocbina, K.R. Librero, and A.C. Orbeta Jr. 2024. An assessment of the enterprise-based training modality in the Philippines: Barriers, incentives, and policy gaps. PIDS Discussion Paper Series 2024-05. Philippine Institute for Development Studies.
- Giousmpasoglou, C. 2024. Working Conditions in the Hospitality Industry: The Case for a Fair and Decent Work Agenda. *Sustainability*, 16(19), 8428. <https://doi.org/10.3390/su16198428> (accessed on November 11, 2025).
- Helble, M., T. Long, and T. Le. 2019. Sectoral and Skill Contributions to Labor Productivity in Asia. ADBI Working Paper 929. Tokyo: Asian Development Bank Institute. <https://www.adb.org/publications/sectoral-and-skill-contributions-labor-productivity-asia> (accessed on March 24, 2025)
- Henao, C. A., J.C. Muñoz, and J.C. Ferrer. 2015. The impact of multi-skilling on personnel scheduling in the service sector: a retail industry case. *Journal of the Operational Research Society*, 66(12):1949–1959. <https://doi.org/10.1057/jors.2015.9> (accessed on October 14, 2025).
- Hipp, C. and H. Grupp. 2005. “Innovation in the service sector: The demand for service-specific innovation measurement concepts and typologies”. *Research Policy* 34(4):517–535.
- Hofmeister, J., D.K. Kanbach, and J. Hogueve. 2024a. Measuring and managing service productivity: a meta-analysis. *Review of Managerial Science* 18:739–775. <https://doi.org/10.1007/s11846-023-00620-5>
- Hofmeister, J., D.K. Kanbach, and J. Hogueve. 2024b. Service productivity: a systematic review of a dispersed research area. *Management Review Quarterly* 74:1249–1281. <https://doi.org/10.1007/s11301-023-00333-9>
- ILO. 2021a. Transition from the informal to the formal economy - Theory of Change. International Labour Organization. <https://www.ilo.org/resource/brief/transition-informal-formal-economy-theory-change> (accessed on February 18, 2025).

- ILO. 2021b. Theory of Change: Enterprise formalization for decent work. International Labour Organization. <https://www.ilo.org/resource/brief/theory-change-enterprise-formalization-decent-work> (accessed on February 18, 2025).
- Macdonald, E. 2019. Under-employment: A crisis hangover, or something more? OECD Social, Employment and Migration Working Papers No. 234. Organisation for Economic Co-operation and Development. <https://dx.doi.org/10.1787/47123848-en> (accessed on March 24, 2025).
- Maroto-Sanchez, A. 2012. Productivity in the services sector: conventional and current explanations. *The Service Industries Journal* 32(5):719–746.
- Martin, R.L. 2015. What Economists Get Wrong About Measuring Productivity. *Harvard Business Review*. <https://hbr.org/2015/09/what-economists-get-wrong-about-measuring-productivity> (accessed on December 8, 2025)
- Nayyar, G. and E. Davies. 2023. Services-led growth: Better prospects after the pandemic? Policy Research Working Paper No. 10382. World Bank Group. <https://documents1.worldbank.org/curated/en/099820203272339879/pdf/IDU00fd3d9af0140b044210aa5a0aebfaf2f92ba.pdf> (accessed on October 7, 2025).
- Nayyar, G., W.F. Maloney, M. Bas, A. Shingal, and S.L. Singh. 2021. At Your Service? The Promise of Services-Led Development. Washington, DC: World Bank Group.
- NEDA. 2017. Vision 2040. Pasig City: National Economic Development Authority. <https://2040.neda.gov.ph/publications-4/> (accessed on November 10, 2024).
- NEDA. 2023. Philippine Development Plan 2023-2028 Pasig City: National Economic Development Authority.
- Nomura, K. and M.S. Ho. 2024. APO Productivity Databook 2024. Asian Productivity Organization. <https://doi.org/10.61145/SQVZ2821> (accessed on December 04, 2025).
- NWPC. n.d. Productivity Toolbox. National Wages and Productivity Commission. <https://nwpc.dole.gov.ph/productivity-toolbox/> (accessed on September 11, 2025).
- OECD. 2001. Measuring productivity: Measurement of aggregate and industry-level productivity growth. <https://unstats.un.org/unsd/nationalaccount/docs/OECD-Productivity-e.pdf> (accessed on June 16, 2025).
- OECD. 2016. OECD Compendium of Productivity Indicators 2016, Paris: Organisation for Economic Co-operation and Development Publishing. <http://dx.doi.org/10.1787/pdvtvy-2016-en> (accessed on March 231, 2025)
- Orbeta, A.C. Jr. 2022. Vocational education and training in the Philippines. In International handbook on education in Southeast Asia, edited by L.P. Symaco and M. Hayden. Springer International Handbooks of Education. Singapore: Springer.
- Orbeta, A.C. Jr. and J.P. 2024. Issues in Philippine TVET: Responsiveness to Industry Demand and Barriers to Access among Disadvantaged Youth. PIDS Research Paper No. 2024-03. Philippine Institute for Development Studies.
- Orbeta, A.C. Jr. and V. B. Paqueo. 2017. Countering the Discriminatory Impact of Minimum Wages Against Disadvantaged Workers: Literature Review and Experimental Design Development. PIDS Discussion Papers No. 2017-55. Philippine Institute for Development Studies.
- Orbeta, A.C. Jr. and V.B. Paqueo. 2022. Philippine education: Situationer, challenges, and ways forward. PIDS Discussion Paper Series 2022-23. Philippine Institute for Development Studies.
- Over, M. 2024. Comment on “Exploring the prospects of services-led development in the Philippines” *The Philippine Review of Economics* December 2024, 61(2):139-143.
- PCO. 2025. PBBM issues AO No. 36 establishing education, workforce dev’t group. Presidential Communications Office. [https://pco.gov.ph/news\\_releases/pbbm-issues-](https://pco.gov.ph/news_releases/pbbm-issues-)

- [ao-no-36-establishing-education-workforce-devt-group/](#) (accessed on September 29, 2025).
- The Philippine Star. 2025. Sari-sari stores sell 46 percent more using AI. December 15. <https://www.philstar.com/business/2025/12/15/2494228/sari-sari-stores-sell-46-percent-more-using-ai> (accessed on December 15, 2025).
- PSA. 2019. PSA Labor Productivity Statistics, Table 1 - Labor Productivity by Sector, Philippines: 1991-2018 [data set]. Philippine Statistics Authority. <https://psa.gov.ph/statistics/labor-productivity-statistics> (accessed on October 8, 2024).
- PSA. 2023. Technical Notes: 2021/2022 Integrated Survey on Labor and Employment. Philippine Statistics Authority. <https://psa.gov.ph/statistics/isle/technical-notes> (accessed on November 10, 2025).
- PSA. 2025a. Participation in the labor force in July 2025 decreased to 48.64 million Filipinos aged 15 years and over. Philippine Statistics Authority. <https://psa.gov.ph/statistics/labor-force-survey/node/1684080098> (accessed on September 10, 2025).
- PSA. 2025b. Unemployment Rate in December 2024 was Estimated at 3.1 Percent Reference Number: 2025-4. Philippine Statistics Authority. <https://psa.gov.ph/statistics/labor-force-survey/node/1684066682> (accessed on February 14, 2025).
- PSA. 2025c. Productivity Improvement and Gainsharing Practices. Philippine Statistics Authority. Productivity Improvement and Gainsharing Practices. [https://openstat.psa.gov.ph/PXWeb/pxweb/en/DB/DB\\_1B\\_ISLE\\_PIGP/?tablelist=true](https://openstat.psa.gov.ph/PXWeb/pxweb/en/DB/DB_1B_ISLE_PIGP/?tablelist=true) (accessed on September 11, 2025).
- RA 10771. An act promoting the creation of green jobs, granting incentives and appropriating funds therefor. Metro Manila, Philippines: Congress of the Philippines.
- RA 11534. An act reforming the corporate income tax and incentives system, amending for the purpose sections 20, 22, 25, 27, 28, 29, 34, 40, 57, 109, 116, 204 and 290 of the national internal revenue code of 1997, as amended, and creating therein new title xiii, and for other purposes. Metro Manila, Philippines: Congress of the Philippines.
- RA 11962. An act establishing the national employment master plan, to be known as the “Trabaho para sa Bayan Plan,” appropriating funds therefor, and for other purposes. Metro Manila, Philippines: Congress of the Philippines.
- RA 12063. An act institutionalizing the enterprise-based education and training framework and appropriating funds therefor. Metro Manila, Philippines: Congress of the Philippines.
- RA 6971. An act to encourage productivity and maintain industrial peace by providing incentives to both labor and capital. Metro Manila, Philippines: Congress of the Philippines.
- Rodrik D. and J.E. Stiglitz. 2024. A New Growth Strategy for Developing Nations. 2024. <https://tinyurl.com/ymrg8qom> or <https://drodrik.scholar.harvard.edu/publications/new-growth-strategy-developing-nations> (accessed on January 11, 2025).
- Rodrik, D. and R. Sandhu. 2024. Servicing Development: Productive Upgrading of Labor-Absorbing Services in Developing Economies, *Reimagining the Economy Policy Paper*. Harvard University Kennedy School of Government.
- Serafica, R. B. .2024. “Exploring the prospects of services-led development for the Philippines,” *The Philippine Review of Economics*, 61(2):114-138
- Serafica, R. B., J.M. Vergara, and Q.C.A. Oren. 2021. Regional Analysis of the Philippine Services Sector. PIDS Research Paper No. 2021-04. Philippine Institute for Development Studies.
- Serafica, R.B. and Q.C.A. Oren. 2023. Making Broadband Universal: A Review of Philippine Policies and Strategies. PIDS Discussion Papers No. 2023-31. Philippine Institute for Development Studies.

- Serafica, R.B. and Q.C.A. Oren. 2023a. Understanding Digital Platforms: Opportunities, Risks, and Government Responses, Chapter 2 in *Critical Issues in the Philippine Digital Economy* (Bayudan-Dacuycuy and Serafica, (eds), PIDS Book No. 2023-03. Philippine Institute for Development Studies
- Serafica, R.B. and Q.C.A. Oren. 2023b. Exploring Policies and Initiatives for Online Workers in the Philippines. Chapter 5 in *Critical Issues in the Philippine Digital Economy*, edited by C. Bayudan-Dacuycuy and R.B. Serafica, 149–200. PIDS Book No. 2023-03. Philippine Institute for Development Studies.
- Serafica, R.B. and Q.C.A. Oren. *forthcoming*. A Snapshot of Innovation in the Philippine Services Sector: Findings from the 2021 Survey on Innovation Activities of Establishments. PIDS Research Paper Series. Philippine Institute for Development Studies.
- Serrat, O. 2017. Theories of Change. In: *Knowledge Solutions*. Singapore: Springer. [https://doi.org/10.1007/978-981-10-0983-9\\_24](https://doi.org/10.1007/978-981-10-0983-9_24)
- Sorbe, S., P. Gal, and V. Millot. 2018. Can Productivity Still Grow in Service-Based Economies? Literature Overview and Preliminary Evidence from OECD Countries. Economics Department Working Papers No. 1531. Organisation for Economic Co-operation and Development. [https://www.oecd.org/en/publications/can-productivity-still-grow-in-service-based-economies\\_4458ec7b-en.html](https://www.oecd.org/en/publications/can-productivity-still-grow-in-service-based-economies_4458ec7b-en.html) (accessed on March 24, 2025).
- Taques, F.H., M.G. López, L.F. Basso, and N. Areal. 2021. “Indicators Used to Measure Service Innovation and Manufacturing Innovation.” *Journal of Innovation & Knowledge* 6(1):11–26. doi: 10.1016/j.jik.2019.12.001.
- TESDA. 2023. 8 out of 10 tech-voc graduates got hired, TESDA reports. Technical Education and Skills Development Authority. <https://www.tesda.gov.ph/Media/NewsDetail/20209> (accessed on October 14, 2025).
- Tether, B.S. 2003. “The Sources and Aims of Innovation in Services: Variety between and within Sectors.” *Economics of Innovation and New Technology* 12(6):481–505. doi: 10.1080/1043859022000029221.
- Toivonen, M. and T. Tuominen. 2009. Emergence of innovations in services. *The Service Industries Journal* 29(7):887-902.
- UNCTAD. 2019. *Digital Economy Report 2019: Value Creation and Capture Implications for Developing Countries*. United Nations Conference on Trade and Development.
- te Velde, D.W. 2017. *Services trade and economic transformation: models and evidence in Services and structural transformation for development*. M. Mashayekhi and B. Antunes (eds.). New York and Geneva: United Nations.
- Vence, X. and A. Trigo. 2009. Diversity of innovation patterns in services. *The Service Industries Journal* 29(12):1635-1657.
- Vooren, M., C. Haelermans, W. Groot, and H.M.V.D. Brink. 2019. The Effectiveness of Active Labor Market Policies: A Meta-analysis. *Journal of Economic Surveys* 33(1):125–49. doi: 10.1111/joes.12269 (accessed on March 31, 2025)
- White, H, D.A. Raitzer. 2017. *Impact Evaluation of Development Interventions: A Practical Guide Research Design*. <http://dx.doi.org/10.22617/TCS179188-2> (accessed on February 17, 2025).
- World Bank. 2013. *Philippine Development Report: Creating more and better jobs*. World Bank Philippine Office. <https://documents1.worldbank.org/curated/en/895661468092965770/pdf/ACS58420WP0P120Box0382112B00PUBLIC0.pdf> (accessed on September 10, 2025).
- World Bank. 2020. *Global Economic Prospects, January 2020: Slow Growth, Policy Challenges*. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1468-6.

License: Creative Commons Attribution CC BY 3.0 IGO (accessed on September 10, 2025).

World Bank. 2023. *Philippine Jobs Report: Shaping a Better Future for the Filipino Workforce*. Washington, D.C.: World Bank Group. <https://www.worldbank.org/en/country/philippines/publication/philippine-jobs-report-shaping-a-better-future-for-the-filipino-workforce> (accessed on February 25, 2025).

World Bank. 2024. *Services Unbound: Digital Technologies and Policy Reform in East Asia and Pacific*. East Asia and Pacific Development Studies. Washington, DC: World Bank. doi:10.1596/978-1-4648-2082-3. License: Creative Commons Attribution CC BY 3.0 IG (accessed on October 7, 2025).

World Bank. 2025. *Running Uphill: Growth, Jobs, and the Quest for Productivity*. Philippines Growth and Jobs Report. © World Bank. <http://hdl.handle.net/10986/43456> License: CC BY-NC 3.0 IGO.

## 8 Annex 1. Measuring labor productivity

Measuring productivity in services is difficult, especially in determining due to volume and prices, as well as measuring the quality of services (Sorbe et al. 2018). Low productivity rates could also be partly attributed to the challenges in accurately measuring productivity growth in the services sector, particularly due to difficulties in calculating services producer price indices (SPPIs) and, as a result, determining the volume series of value added. While this measurement issue may also exist in the manufacturing sector, it is more pronounced in the services sector. Measurement should also consider quality changes, how to treat bundled services (whether by breaking them down into components or pricing them as a group), and the decomposition of SPPI based on the type of users (e.g., business-to-business, business-to-consumer, or business-to-all) (OECD, 2016).

There are various ways to measure productivity, and the appropriate measure depends on the objective of the analysis and, in many cases, on the availability of data. Productivity can be measured as (1) single-factor productivity, which compares output to one input (like labor) and (2) multifactor productivity, which compares output to a combination of inputs (such as labor and capital). At the industry or firm level, productivity can also be measured using gross output (total production) or value added, which reflects the increase in value after subtracting intermediate inputs. However, the most widely used is the value-added labor productivity (OECD 2001). Similarly, Fedi and Ezzahid (2024) noted that measuring productivity means assessing how effectively inputs are converted into outputs. It is commonly expressed as the ratio of output (Y) to input (X), or Y/X. Inputs may include labor, capital, land, raw materials, energy, and other intermediate goods and services. Economic output is usually represented by Gross Domestic Product (GDP) or real value added.

### 8.1 ASPBI (establishment) data

In general, sectors Real Estate Activities, Financial and Insurance Activities, and Information and Communication consistently have the highest productivity, while the Arts, Entertainment and Recreation sector has shown a decline in productivity, particularly during the onset of the COVID-19 pandemic. On average, sectors Accommodation and food service activities, Administrative and support service activities, Education, and Other Service Activities have the lowest productivity levels. However, there are nuances when viewed at the regional level. Note that in the ASPBI, *value added* is defined as gross output minus intermediate input. The components of gross output and intermediate input may vary across sectors, within sectors, and over time.

#### Labor productivity using ASPBI data by services subsector, 2012-2021 (in PhP thousand per worker)

Industry	2012	2013	2015	2016	2017	2018	2019	2020	2021
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	368	343	427	383	466	708	709	597	643
Transportation and Storage	792	832	1148	1051	1016	1177	1124	515	899
Accommodation and food service activities	271	359	393	368	437	496	530	416	445
Information and Communication	1586	1794	1533	1658	1899	2060	1914	2324	2938
Financial and Insurance Activities	1921	1815	2245	2151	2921	2252	2258	2586	2677

Real Estate Activities	2947	2821	2978	2941	4142	6088	4590	3533	4594
Professional, Scientific And Technical Activities	958	1060	1062	1155	1011	857	783	889	932
Administrative and support service activities	298	370	346	332	338	388	455	456	395
Education	297	331	338	330	345	362	376	358	357
Human Health and Social Work Activities	348	396	436	464	475	587	534	547	596
Arts, Entertainment and Recreation	806	1046	1305	1818	1531	1713	1486	709	709
Other Service Activities	207	125	185	211	219	320	241	142	166

Notes: No ASPBI publication found in PSA library for the year 2014. Due to the availability of the data, available data is limited to expanding productivity levels at the national level from 2012-2021.

Source: ASPBI

### Standard deviation of regional level productivity by industry from 2019 to 2021 (in thousand pesos)

Industry	2019	2020	2021	Average
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	517	266	172	318
Transportation and Storage	348	174	262	261
Accommodation and food service activities	145	153	112	137
Information and Communication	1533	763	939	1078
Financial and Insurance Activities	939	972	998	970
Real Estate Activities	2082	1417	1839	1779
Professional, Scientific And Technical Activities	207	258	295	253
Administrative and support service activities	163	149	133	148
Education	95	93	91	93
Human Health and Social Work Activities	114	127	140	127
Arts, Entertainment and Recreation	592	341	341	424
Other Service Activities	67	49	35	50

Note: Regional data only available starting in 2019

Source: ASPBI

## 8.2 GVA per working hour

### Labor productivity by services subsector (GVA per working hour)

Industry	2018	2019	2020	2021	2022	2023
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	155	161	161	144	151	162
Transportation and Storage	87	87	84	88	87	90
Accommodation and Food Service Activities	91	92	78	77	76	78
Information and Communication	526	541	584	641	662	600
Financial and Insurance Activities	1282	1174	1377	1475	1401	1518
Real Estate and Ownership of Dwellings	3287	2863	3346	3156	3194	2676
Professional and Business Services	248	244	222	214	197	189
Education	282	265	234	265	257	265

Human Health and Social Work Activities	257	232	229	216	238	228
Other Services	60	73	51	45	51	59

Source: Authors' computation based on PSA Regional Accounts and LFS

### Standard deviation of regional level productivity by industry from 2018 to 2023

Industry	2018	2019	2020	2021	2022	2023
Across section/subsector	1.00	0.87	1.03	0.99	0.99	0.86
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	0.09	0.10	0.09	0.08	0.09	0.09
Transportation and Storage	0.03	0.03	0.03	0.04	0.04	0.04
Accommodation and Food Service Activities	0.06	0.06	0.05	0.04	0.05	0.07
Information and Communication	0.35	1.64	1.33	0.62	0.93	0.41
Financial and Insurance Activities	0.75	0.61	0.99	1.08	0.70	0.60
Real Estate and Ownership of Dwellings	5.96	31.17	38.71	4.04	8.84	4.15
Professional and Business Services	0.12	0.11	0.11	0.08	0.07	0.07
Education	0.13	0.11	0.10	0.06	0.05	0.05
Human Health and Social Work Activities	0.13	0.13	0.13	0.09	0.09	0.12
Other Services	0.03	0.04	0.03	0.02	0.02	0.03

Source: Authors' computation based on PSA Regional Accounts and LFS

### 8.3 Comparison of different measures and data sources

Variable	Geographical level	Data source	Year (2009 PSIC Code)	Limitations/Remarks
Productivity as measured using GVA per employed person or hours worked				
Gross value added	National and Regional	Regional Accounts	2000-2024	Covered years limited by GVA at constant 2018 prices; 2023-2024 data are with Negros Island Region; Some PSIC sections were aggregated, resulting in 10 service subsectors instead of 12.
Employed persons	National and Regional	Philippine Statistical Yearbook, Labor Force Survey	2012-2024	Covered years limited by data at the 2009 PSIC Section level; 2023 and 2024 have no explicit annual estimates, inferred using selected LFS monthly survey rounds; Regional values for years: 2012, 2013, 2023, and 2024 data are based on the LFS monthly survey rounds
Hours worked	National and Regional	Labor Force Survey	2018-2023 (can be extended to	Annual hours worked are estimated using the Total

			earlier years, such as from 2012-2024, using the LFS microdata from PSADA)	Number of Hours Worked during the past week multiplied by 52 weeks per year using the LFS October round; Incomplete availability of the LFS publications in the PSA Library (Latest: 2020 Q2 LFS)
Productivity at the establishment level				
Productivity (or Value added per worker)	National	Annual Survey of Philippine Business and Industry; Census of Philippine Business and Industry	2012-2021 (no available publication in the PSA Library for 2011, 2014);	Covered years are limited due to the unavailability of ASPBI publications (i.e., 2011, 2014); the 2010 ASPBI publication does not have productivity data; Productivity data is complicated to compute, given that GVA per sector and year may have different operational definitions; ASPBI microdata do not contain value-added or productivity variables
Productivity (Value added /total employment)	Regional	Annual Survey of Philippine Business and Industry	2019-2021 (can be extended to earlier year: 2018 using CPBI data)	Openstat's Services Statistics only contain ASPBI data, not including CPBI; The release of the ASPBI publication is delayed (the latest available online is 2021); ASPBI microdata do not contain value-added or productivity variables

## 9 Annex 2. Labor productivity profiles by region

### 9.1 National Capital Region (NCR)

GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	861	867	910	964	927	1052	1148	1170	1026	943	1008	1033	962
H	212	223	252	283	282	282	283	285	196	223	238	205	242
I	208	222	222	229	217	252	285	256	149	166	177	171	158
J	898	1066	955	1025	1100	1049	1000	1012	1220	964	955	649	932
K	4465	5541	5001	5490	5595	6048	6388	6345	7058	7125	6861	5695	6408
L	4464	4559	4903	4476	5316	6199	5780	4636	5082	5285	4671	3867	2970
M&N	985	1016	1087	1217	1161	1250	1177	1068	1022	1006	861	620	741
P	1077	1052	1059	1098	990	1066	1083	1092	853	786	896	669	1002
Q	1004	903	864	881	883	878	864	803	973	787	853	661	454
R&S	393	394	384	288	274	311	334	354	216	205	246	269	245

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	2.921	2.512	3.017	2.769	2.538	2.271	2.671
K	2.736	2.706	2.837	2.415	2.428	2.615	2.623
P	0.527	0.508	0.361	0.398	0.324	0.329	0.408
G	0.406	0.436	0.379	0.335	0.385	0.388	0.388
J	0.429	0.489	0.486	0.309	0.303	0.290	0.384
M & N	0.469	0.445	0.469	0.291	0.265	0.263	0.367
Q	0.357	0.288	0.366	0.217	0.249	0.272	0.292
R & S	0.118	0.155	0.110	0.070	0.094	0.116	0.110
H	0.096	0.114	0.089	0.080	0.088	0.078	0.091
I	0.108	0.110	0.068	0.057	0.061	0.070	0.079

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	838	807	797	814
H	1436	533	1151	1040
I	727	505	475	569
J	2246	2737	3570	2851

K	4471	4391	4886	4583
L	6330	4914	5855	5700
M	885	1048	1170	1035
N	540	544	463	516
P	578	559	532	556
Q	772	741	858	791
R	2452	1312	1312	1692
S	255	111	176	181

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.2 Cordillera Administrative Region (CAR)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	343	379	408	460	481	536	588	633	696	595	579	599	475
H	170	142	198	208	221	240	240	235	243	222	260	303	301
I	424	388	428	459	606	677	741	739	548	622	684	763	523
J	1255	1422	1419	1693	1499	1982	1905	2493	3586	2148	2376	2594	3434
K	2951	3520	3800	3303	4264	6129	5511	4644	7119	6673	6468	4566	6256
L	14028	8437	20567	25553	17005	11963	17162	15690	25504	12096	13791	10048	
M&N	751	690	582	575	765	660	672	737	815	603	587	589	588
P	603	657	590	544	465	499	550	604	516	485	537	448	587
Q	276	320	386	548	513	586	530	510	499	589	521	518	700
R&S	158	208	197	168	164	180	213	228	180	122	155	199	262

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	6.010	8.898	11.889	5.935	8.760	5.096	7.765
K	2.797	1.507	2.512	4.998	2.903	2.106	2.804
J	0.525	0.674	1.010	1.392	0.975	1.074	0.942
I	0.291	0.328	0.237	0.177	0.226	0.327	0.265
M & N	0.235	0.310	0.234	0.261	0.198	0.261	0.250
P	0.244	0.245	0.203	0.213	0.275	0.228	0.235
G	0.193	0.251	0.271	0.201	0.203	0.245	0.227
Q	0.224	0.157	0.132	0.339	0.242	0.233	0.221

H	0.088	0.082	0.090	0.085	0.079	0.127	0.092
R & S	0.088	0.104	0.069	0.047	0.064	0.104	0.079

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	379	361	430	390
H	191	143	269	201
I	308	216	467	330
J	398	275	215	296
K	1459	1025	639	1041
L	1164	315	981	820
M	266	217	211	232
N	553	462	417	477
P	300	245	279	275
Q	356	477	569	467
R	335	134	134	201
S	162	98	96	119

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.3 Region I (Ilocos Region)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	185	183	177	188	206	249	229	252	248	201	202	293	278
H	116	111	119	132	135	139	164	154	118	121	153	193	156
I	216	206	233	255	315	282	237	237	169	155	167	204	264
J	2010	1379	1269	1024	1086	1201	1799	1928	1567	2459	2110	2093	2249
K	507	631	784	604	736	1277	836	1147	1080	1024	1117	1439	2767
L	8331	31679	16293	17560	10986	7281	10027	12169	9757	8401	4381	16815	4598
M&N	180	192	176	175	167	244	210	262	224	181	210	330	224
P	351	324	387	400	410	433	479	475	469	480	507	575	427
Q	240	227	323	424	435	476	483	759	527	548	609	604	929
R&S	62	72	67	71	84	86	80	88	62	53	70	82	99

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical

Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities  
Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	17.715	129.588	3.745	7.384	10.297	10.635	29.894
J	0.609	0.514	0.510	0.765	1.542	0.912	0.809
K	0.370	0.455	0.434	0.654	0.451	0.575	0.490
Q	0.188	0.431	0.218	0.334	0.316	0.250	0.290
P	0.227	0.199	0.195	0.316	0.240	0.288	0.244
M & N	0.104	0.112	0.094	0.098	0.094	0.133	0.106
I	0.089	0.107	0.122	0.094	0.090	0.097	0.100
G	0.083	0.092	0.098	0.092	0.102	0.119	0.098
H	0.061	0.052	0.066	0.055	0.069	0.088	0.065
R & S	0.049	0.050	0.029	0.038	0.040	0.044	0.042

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities  
Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	508	261	397	389
H	266	148	200	204.5
I	406	210	409	342
J	2056	428	956	1147
K	1477	818	953	1082
L	298	658	732	563
M	419	204	107	243
N	143	151	207	167
P	231	257	207	232
Q	414	445	374	411
R	1046	901	901	949.8
S	250	107	112	156

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities  
Source: ASPBI

#### 9.4 Region II (Cagayan Valley)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	160	148	161	171	180	200	221	232	216	182	208	243	189
H	184	214	248	238	232	210	264	324	183	223	243	288	173
I	158	133	140	140	174	195	161	165	106	166	152	177	87
J	6295	2512	1843	1711	1983	2040	2259	7965	3514	3378	2799	3299	2019
K	519	545	534	550	653	844	983	830	648	625	933	1082	1598
L	21098		14987	11815	18184	25680	18773	9557	14147	11500	8959	7275	3330
M&N	70	70	117	154	178	123	160	190	171	142	120	138	107
P	331	319	355	395	426	501	634	664	507	476	488	486	620
Q	379	345	463	416	609	499	610	677	435	413	478	705	2928
R&S	66	83	92	66	51	50	51	56	25	25	23	27	16

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	5.551	8.083	3.476	12.340	34.454	17.029	13.489
J	1.586	6.839	1.307	1.954	1.765	1.351	2.467
K	0.320	0.313	0.354	0.353	0.616	0.471	0.405
P	0.339	0.296	0.236	0.246	0.204	0.247	0.261
Q	0.272	0.263	0.185	0.235	0.153	0.325	0.239
H	0.112	0.104	0.107	0.173	0.090	0.129	0.119
G	0.069	0.077	0.102	0.064	0.075	0.096	0.080
I	0.050	0.068	0.095	0.097	0.059	0.078	0.075
M & N	0.068	0.077	0.058	0.064	0.049	0.057	0.062
R & S	0.026	0.025	0.017	0.011	0.013	0.015	0.018

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	535	1137	738	803
H	324	218	288	277
I	368	221	271	286
J	681	532	286	500
K	771	1126	772	890
L	786	770	470	675
M	471	287	539	432
N	114	40	120	92

P	260	255	283	266
Q	387	480	640	502
R	533	335	335	401
S	182	126	162	157

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.5 Region III (Central Luzon)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	223	233	222	225	219	245	246	251	251	212	208	236	238
H	129	141	143	154	158	179	174	183	182	192	198	191	173
I	126	132	142	163	173	196	255	221	160	181	175	135	168
J	1327	1904	1182	1042	1299	1108	1379	1273	1746	2001	1852	1914	2126
K	554	469	664	777	826	859	906	941	1068	828	1069	1203	2504
L	7294	5941	5590	5461	5522	5154	6157	6944	4944	4292	4756	4148	8835
M&N	379	360	497	527	525	540	555	515	480	479	410	413	463
P	403	427	388	408	436	453	538	482	455	515	551	504	495
Q	291	339	357	388	352	460	404	369	469	374	332	385	986
R&S	154	142	142	138	138	162	161	164	129	107	118	157	147

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	2.680	3.200	2.454	3.041	2.616	1.968	2.660
J	0.551	0.615	0.498	1.011	1.211	0.826	0.785
K	0.566	0.347	0.423	0.525	0.457	0.512	0.472
P	0.225	0.222	0.245	0.288	0.264	0.243	0.248
M & N	0.237	0.203	0.174	0.247	0.207	0.165	0.205
Q	0.154	0.151	0.177	0.182	0.153	0.157	0.162
G	0.100	0.098	0.088	0.089	0.083	0.090	0.091
I	0.101	0.096	0.076	0.084	0.080	0.057	0.082
H	0.066	0.077	0.084	0.097	0.078	0.075	0.079
R & S	0.080	0.086	0.063	0.066	0.062	0.071	0.071

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical

Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	630	441	554	542
H	787	660	564	670
I	496	637	525	553
J	1243	1947	447	1212
K	1153	1576	1402	1377
L	823	620	2337	1260
M	619	417	495	510
N	397	346	459	400.49
P	294	289	301	295
Q	453	530	470	484
R	904	190	190	428
S	312	156	160	209

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.6 Region IV-A (CALABARZON)

#### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	296	282	287	306	270	257	286	274	258	221	236	262	254
H	128	133	141	155	157	172	173	160	157	180	184	211	155
I	108	99	106	120	121	127	140	129	110	155	138	189	136
J	1012	909	1275	1114	1130	1129	1101	1091	1686	1193	1404	2530	3640
K	799	876	852	947	958	1022	935	953	1197	1206	1223	2430	2728
L	2808	3261	3706	3753	3195	4016	3449	2931	3169	3448	3124	3475	3188
M&N	135	159	179	183	172	173	165	162	151	152	127	224	265
P	402	429	432	459	452	487	518	437	482	476	484	460	519
Q	236	254	312	310	330	356	375	382	318	350	353	345	738
R&S	78	75	65	70	73	77	81	88	73	67	83	129	106

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	2.830	1.752	2.557	2.258	2.727	2.603	2.454
J	0.440	0.373	0.693	1.672	1.039	1.051	0.878
K	0.492	0.390	0.530	0.877	1.040	1.071	0.734
P	0.297	0.180	0.222	0.256	0.283	0.229	0.244
Q	0.154	0.133	0.144	0.143	0.261	0.158	0.165
G	0.107	0.120	0.107	0.091	0.100	0.106	0.105
H	0.077	0.076	0.088	0.097	0.084	0.090	0.085
M & N	0.064	0.081	0.054	0.110	0.087	0.092	0.082
I	0.052	0.052	0.054	0.074	0.066	0.081	0.063
R & S	0.037	0.044	0.043	0.035	0.047	0.062	0.045

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	572	495	720	596
H	878	567	471	639
I	491	379	539	470
J	546	605	478	543
K	1139	1698	1509	1448
L	1079	1714	2766	1853
M	485	385	282	384
N	240	209	211	220.04
P	323	318	341	328
Q	468	556	510	512
R	1057	293	293	548
S	219	144	149	170

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

#### 9.7 Region IV-B (MIMAROPA Region)

##### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	173	167	161	190	201	209	218	248	248	218	223	249	213
H	217	241	295	285	269	287	299	336	286	284	367	429	419
I	178	190	153	155	206	237	273	244	202	214	239	302	373

J	1100	1381	1569	2143	3085	3317	2356	3107	3295	2633	3283	4954	
K	989	925	1610	1445	1469	1748	1957	1637	2013	2043	1668	1661	944
L	7375	15133	9830	9618	16005	5340	5711	7500	8553	5527	6963	2988	3232
M&N	157	194	199	164	199	140	148	153	136	155	168	118	89
P	266	265	318	333	431	467	491	541	449	425	499	439	665
Q	220	171	263	323	597	706	513	617	471	497	530	309	486
R&S	145	179	136	124	156	152	139	180	175	160	158	170	174

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	4.100	3.532	10.101	7.279	6.557	2.146	5.619
J	1.439	3.214	0.583	2.708	1.211	2.171	1.888
K	0.616	0.626	0.830	0.915	1.267	0.768	0.837
Q	0.239	0.202	0.251	0.171	0.353	0.132	0.225
P	0.168	0.233	0.186	0.216	0.223	0.210	0.206
H	0.146	0.137	0.144	0.153	0.192	0.212	0.164
I	0.134	0.098	0.145	0.125	0.107	0.130	0.123
G	0.088	0.089	0.100	0.105	0.110	0.116	0.101
R & S	0.074	0.109	0.090	0.099	0.081	0.089	0.090
M & N	0.063	0.062	0.041	0.050	0.052	0.048	0.053

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	1890	434	401	908
H	311	246	171	243
I	376	491	332	400
J	3224	227	503	1318
K	398	452	739	530
L	269	693	872	612
M	242	262	286	263
N	217	349	399	322
P	203	188	176	189
Q	405	388	453	415
R	282	98	98	159
S	199	142	156	166

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.8 Region V (Bicol Region)

GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	84	94	111	116	123	122	126	138	151	136	140	140	158
H	112	112	119	132	156	150	147	153	127	117	140	160	175
I	72	74	70	85	114	123	122	148	134	141	135	133	126
J	825	787	1037	1330	1359	1097	1506	1122	1615	1754	1162	978	1331
K	780	1293	1188	1381	1202	1595	1798	1733	1771	1819	1307	1895	2680
L	6901	6983	7156	8749	4400	4982	6199	5971	9703	6025	5295	2549	3740
M&N	231	209	267	274	271	266	275	286	257	236	188	183	110
P	257	219	224	258	280	382	410	519	412	381	378	422	278
Q	420	339	317	503	597	658	481	536	540	451	519	443	384
R&S	31	32	26	32	41	43	45	58	43	40	40	50	47

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	23.768	2.420	4.365	4.365	4.966	1.295	6.863
K	1.046	0.683	1.168	1.208	1.267	0.860	1.039
J	0.593	0.397	0.617	1.100	1.055	0.573	0.723
Q	0.217	0.159	0.276	0.235	0.447	0.203	0.256
P	0.200	0.221	0.169	0.190	0.205	0.213	0.200
M & N	0.147	0.085	0.103	0.103	0.106	0.080	0.104
I	0.057	0.056	0.072	0.069	0.087	0.066	0.068
H	0.063	0.065	0.068	0.067	0.065	0.078	0.068
G	0.052	0.058	0.067	0.058	0.064	0.063	0.060
R & S	0.021	0.027	0.024	0.024	0.028	0.028	0.025

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	260	1110	490	620
H	292	121	227	213
I	399	313	480	397
J	480	439	614	511
K	437	376	771	528
L	860	842	1113	939
M	335	195	216	249
N	536	309	270	372
P	227	226	276	243
Q	327	347	346	340
R	309	135	135	193
S	131	117	96	115

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.9 Region VI (Western Visayas)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	208	224	230	247	244	253	263	283	287	260	263	171	196
H	164	201	232	237	291	289	309	333	221	247	313	210	264
I	94	90	99	114	121	171	136	180	131	145	147	111	101
J	731	1629	1239	1307	1494	1243	1651	1455	3142	2528	1964	1313	1598
K	953	962	1133	1140	1285	1374	1659	1666	1615	1430	1488	2266	962
L	11311	8850	7821	5964	4331	5739	6073	3943	3956	3599	3273	3001	5502
M&N	260	249	265	263	255	280	257	279	264	222	210	115	93
P	293	296	323	329	406	504	568	520	461	464	451	325	258
Q	454	344	350	355	386	521	430	507	376	367	408	252	209
R&S	76	81	79	83	103	134	134	149	78	72	92	65	67

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	1.796	1.555	4.165	1.379	4.525	2.582	2.667
K	0.828	0.715	0.712	0.872	0.974	1.573	0.946
J	0.579	0.533	0.674	0.870	1.884	0.861	0.900

P	0.272	0.285	0.190	0.235	0.220	0.245	0.241
Q	0.208	0.210	0.140	0.153	0.172	0.185	0.178
H	0.127	0.140	0.094	0.121	0.127	0.138	0.124
G	0.102	0.097	0.119	0.110	0.121	0.113	0.110
M & N	0.087	0.118	0.106	0.089	0.094	0.101	0.099
I	0.055	0.085	0.068	0.065	0.049	0.074	0.066
R & S	0.057	0.071	0.036	0.037	0.039	0.056	0.049

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	488	535	442	488
H	439	305	311	352
I	570	331	276	392
J	2585	984	504	1358
K	946	975	1121	1014
L	411	259	291	321
M	246	136	336	239
N	335	344	386	355
P	330	337	313	327
Q	493	379	454	442
R	586	176	176	313
S	136	172	171	160

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.10 Region VII (Central Visayas)

#### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	309	335	336	335	348	392	410	438	477	407	401	352	334
H	195	210	254	255	246	216	251	242	189	203	259	245	367
I	156	116	106	119	150	283	303	270	216	178	239	217	236
J	760	971	1068	1020	1401	1409	1382	1250	1680	1762	1668	1687	1578
K	1592	1865	1898	2061	2541	2504	2295	3110	3957	3236	2718	2414	4030
L	11194	12996	10277	10474	11123	15919	9386	13589	10984	8313	8735	9457	2398
M&N	536	502	446	477	508	533	505	418	471	401	456	299	285

P	456	457	422	432	545	619	657	741	517	587	675	581	617
Q	542	514	530	537	644	761	620	639	420	461	436	460	224
R&S	64	70	62	57	64	67	67	90	66	55	68	48	61

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	4.617	5.121	7.733	12.518	10.306	5.378	7.612
K	0.910	1.201	2.781	1.527	0.967	1.231	1.436
J	0.632	0.501	0.468	0.722	0.974	0.905	0.700
P	0.282	0.299	0.223	0.260	0.370	0.348	0.297
Q	0.343	0.361	0.188	0.261	0.290	0.233	0.279
G	0.166	0.168	0.194	0.179	0.163	0.183	0.176
M & N	0.190	0.159	0.174	0.161	0.201	0.140	0.171
I	0.135	0.123	0.112	0.083	0.099	0.110	0.110
H	0.099	0.096	0.095	0.091	0.107	0.116	0.101
R & S	0.026	0.048	0.029	0.026	0.028	0.035	0.032

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	430	339	775	515
H	643	580	617	614
I	512	236	284	344
J	624	617	724	655
K	1551	1425	1623	1533
L	3324	1292	4044	2887
M	509	508	607	541
N	396	428	364	396
P	374	353	379	369
Q	476	455	438	456
R	559	124	124	269
S	294	175	218	229

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.11 Region VIII (Eastern Visayas)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	107	125	219	246	127	139	138	153	149	128	134	140	150
H	124	118	309	342	203	170	189	211	161	150	169	253	206
I	63	40	108	132	100	87	116	100	52	43	51	40	45
J	908	1047	3066	3036	1342	1604	2219	1442	1833	1731	1421	1208	1112
K	1080	778	2347	2351	1721	1404	1873	1616	1881	1576	1587	1556	3007
L	35006	9384	21289		20267	14207	14404	20347	12859	15593	8981	4525	4926
M&N	88	100	268	358	97	83	95	106	101	96	81	85	121
P	360	399	599	610	434	492	593	634	568	549	504	543	426
Q	204	205	631	848	437	462	433	305	343	332	264	260	479
R&S	39	45	79	74	43	55	52	66	69	54	58	64	82

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	6.822	17.858	4.996	2.464	7.037	2.578	6.959
J	1.093	0.805	0.693	1.406	0.498	0.805	0.883
K	0.905	0.623	0.902	0.898	0.548	0.702	0.763
P	0.213	0.285	0.242	0.260	0.225	0.270	0.249
Q	0.216	0.200	0.171	0.145	0.135	0.123	0.165
H	0.089	0.086	0.088	0.097	0.071	0.119	0.092
G	0.061	0.064	0.071	0.060	0.067	0.064	0.064
M & N	0.035	0.038	0.027	0.042	0.025	0.039	0.034
R & S	0.030	0.040	0.042	0.030	0.030	0.032	0.034
I	0.042	0.043	0.022	0.018	0.018	0.020	0.027

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	1647	451	294	797
H	353	189	239	260
I	293	657	197	382
J	337	242	251	277
K	574	823	1050	816
L	348	574	581	501

M	176	170	181	176
N	190	149	229	189
P	194	207	198	199
Q	359	342	468	390
R	168	49	49	89
S	177	195	163	178

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 9.12 Region IX (Zamboanga Peninsula)

### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	249	278	277	304	269	313	398	360	417	313	285	341	370
H	141	149	167	177	164	157	153	147	134	121	141	147	144
I	164	190	124	133	163	210	245	194	118	125	127	124	93
J	1570	908	1419	1575	2380	1864	1845	2008	3400	3336	2957	1611	1923
K	600	509	658	691	723	717	1058	1066	1089	1403	1197	1191	1213
L	46374	20907	15613	26136	18421	20242	22214	10330	23757	24883	5725	10320	8806
M&N	142	153	123	167	188	167	151	164	164	126	162	101	145
P	289	282	272	300	327	661	1113	1181	1013	663	682	687	485
Q	475	387	496	464	562	928	691	835	647	812	658	548	782
R&S	27	35	28	32	37	56	69	93	34	29	38	38	46

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	5.150	6.639	5.516	-	8.911	5.420	6.327
J	0.722	0.454	1.132	1.427	1.419	0.804	0.993
K	0.419	0.504	0.482	0.863	0.433	0.509	0.535
P	0.618	0.470	0.542	0.379	0.296	0.344	0.441
Q	0.249	0.455	0.245	0.340	0.248	0.240	0.296
G	0.135	0.133	0.167	0.125	0.127	0.137	0.137
H	0.073	0.048	0.059	0.054	0.070	0.063	0.061
I	0.084	0.063	0.033	0.063	0.053	0.051	0.058
M & N	0.053	0.044	0.044	0.079	0.058	0.040	0.053
R & S	0.028	0.061	0.016	0.015	0.022	0.020	0.027

Note: - = no observation

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	624	263	431	439
H	236	223	216	225
I	354	270	415	346
J	835	445	380	553
K	921	1086	629	879
L	630	568	1058	752
M	296	192	356	281
N	160	142	148	150
P	305	270	294	290
Q	399	387	520	435
R	295	187	187	223
S	274	202	126	201

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.13 Region X (Northern Mindanao)

GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	421	405	446	452	498	577	533	514	514	488	507	596	534
H	163	148	184	173	155	189	211	202	134	152	186	179	293
I	374	310	391	373	433	461	422	424	315	277	324	341	548
J	2714	981	707	871	1160	1420	1231	1328	1408	1084	1258	1221	1516
K	707	802	897	918	1151	1174	1238	1465	1613	1337	2008	2061	2494
L	7280	14612	9539	9912	14625	7587	10871	13560	11880	8895	7615	13414	8377
M&N	227	179	396	361	390	382	348	370	461	337	363	435	309
P	329	289	380	364	356	409	484	566	561	480	617	588	840
Q	495	311	339	411	587	521	560	627	605	593	749	585	1080
R&S	44	52	47	43	48	65	57	74	70	64	75	67	74

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	4.492	15.863	3.225	13.524	3.808	8.457	8.228
K	0.447	0.635	0.592	0.716	0.941	0.979	0.718
J	0.367	0.998	0.616	0.444	0.512	0.546	0.580
Q	0.260	0.277	0.261	0.232	0.324	0.252	0.268
P	0.212	0.262	0.211	0.194	0.272	0.297	0.241
G	0.234	0.199	0.236	0.223	0.217	0.261	0.228
I	0.182	0.146	0.169	0.133	0.147	0.162	0.157
M & N	0.115	0.138	0.132	0.162	0.162	0.175	0.147
H	0.091	0.073	0.061	0.082	0.073	0.077	0.076
R & S	0.032	0.037	0.034	0.036	0.034	0.035	0.035

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	1776	486	669	977
H	730	485	527	580
I	392	291	432	371
J	1434	1069	463	989
K	1444	1901	1145	1497
L	6479	3911	4875	5088
M	666	329	567	520
N	91	357	177	208
P	284	244	289	272
Q	435	444	568	483
R	282	202	202	229
S	153	212	162	176

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.14 Region XI (Davao Region)

GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	324	325	350	375	407	416	477	514	536	441	473	495	496
H	157	166	212	209	218	230	253	255	203	202	240	275	296
I	150	113	126	158	194	167	224	232	191	224	217	145	150

J	1032	1509	1242	1471	1644	1349	1340	1877	1794	1798	2141	1469	3564
K	1115	1053	1435	1498	1603	2007	2307	2329	2705	2481	2523	2114	3311
L	9774	6467	4084	4664	5170	3862	5501	6444	4755	3527	4182	3055	10338
M&N	344	411	461	524	581	552	656	497	491	395	444	393	340
P	473	513	433	457	529	601	547	526	513	515	493	616	540
Q	765	878	1141	944	1102	1399	1195	1104	976	1089	986	1494	477
R&S	85	92	96	89	93	99	97	117	86	83	92	86	86

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	5.600	5.061	3.377	2.413	1.842	2.163	3.409
K	1.296	1.297	1.118	0.948	1.002	0.966	1.104
J	0.653	1.154	0.894	0.450	0.743	0.698	0.765
Q	0.681	0.394	0.379	0.430	0.312	0.618	0.469
P	0.251	0.196	0.194	0.215	0.216	0.301	0.229
G	0.179	0.193	0.202	0.165	0.213	0.245	0.199
M & N	0.298	0.171	0.188	0.168	0.161	0.171	0.193
H	0.097	0.097	0.084	0.106	0.096	0.119	0.100
I	0.077	0.089	0.103	0.131	0.100	0.074	0.096
R & S	0.055	0.050	0.041	0.036	0.047	0.043	0.046

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	568	457	702	576
H	586	397	533	506
I	390	332	487	403
J	894	1059	1456	1136
K	1057	855	1205	1039
L	1261	1367	1778	1469
M	668	580	904	718
N	363	313	201	292
P	354	346	366	355
Q	409	335	514	419
R	291	219	219	243
S	230	248	159	213

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.15 Region XII (SOCCSKSARGEN)

#### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	138	143	147	154	145	170	185	191	183	148	142	195	217
H	86	102	113	116	114	134	148	130	114	109	106	135	135
I	126	159	161	166	184	188	261	252	213	223	211	129	271
J	2727	986	1372	1489	1222	1019	1774	2351	2326	1813	1105	2642	1618
K	1005	863	1084	1206	1372	1862	1973	1875	1858	1720	1839	2154	5600
L	6375	12936	5432	10586	9140	10658	5772	8247	10255	7738	4373	4898	1465
M&N	133	182	237	309	334	357	286	278	351	233	316	253	381
P	374	351	334	307	370	421	487	437	487	409	397	429	352
Q	419	492	479	511	508	508	447	357	342	291	312	505	321
R&S	42	42	48	45	42	49	51	58	34	30	33	20	28

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	2.268	2.696	5.169	6.126	2.323	2.574	3.526
J	0.791	1.142	0.590	0.557	1.322	0.981	0.897
K	0.793	0.877	0.676	0.915	0.805	0.900	0.828
P	0.199	0.191	0.191	0.249	0.158	0.210	0.200
Q	0.174	0.138	0.111	0.190	0.208	0.220	0.174
M & N	0.132	0.105	0.109	0.142	0.136	0.105	0.122
I	0.102	0.097	0.084	0.091	0.079	0.067	0.086
G	0.076	0.072	0.067	0.070	0.063	0.078	0.071
H	0.063	0.053	0.058	0.061	0.054	0.057	0.058
R & S	0.028	0.039	0.017	0.017	0.015	0.008	0.020

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	253	427	388	356
H	475	473	502	483
I	214	286	315	271
J	6495	399	277	2390
K	1149	906	1314	1123
L	437	625	246	436
M	259	394	254	303
N	157	81	109	116
P	319	324	297	313
Q	372	331	366	356
R	250	97	97	148
S	300	141	116	186

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.16 Region XIII (Caraga)

#### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G	112	95	107	118	128	138	132	160	149	122	133	133	140
H	132	159	192	224	234	248	265	317	285	298	363	342	331
I	194	182	197	200	270	278	245	222	214	205	222	209	246
J	842	895	1253	1294	1322	1800	1068	1793	2019	1489	1515	2808	9631
K	1147	1637	1549	1678	2123	3566	2491	3533	3619	3650	3727	3918	3504
L		5833	10045	14435	14626	8519	12412	8785	12133	12558	4454	7779	2762
M&N	82	64	154	143	136	113	118	144	130	149	138	154	82
P		265	265	285	314	473	491	547	428	400	411	434	291
Q		368	444	489	597	863	715	660	592	822	785	918	1053
R&S	38	41	56	42	54	52	44	61	45	37	38	43	41

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	3.406	15.413	164.564	7.715	3.450	4.147	33.116
K	1.157	1.412	1.581	1.618	1.692	1.755	1.536
J	0.689	0.746	0.648	0.949	0.873	1.230	0.856
Q	0.388	0.300	0.245	0.435	0.256	0.420	0.341

P	0.199	0.235	0.192	0.228	0.217	0.222	0.215
H	0.130	0.129	0.120	0.134	0.187	0.152	0.142
I	0.122	0.080	0.111	0.106	0.096	0.097	0.102
G	0.054	0.067	0.064	0.062	0.063	0.066	0.063
M & N	0.056	0.079	0.048	0.048	0.048	0.064	0.057
R & S	0.028	0.033	0.022	0.025	0.022	0.025	0.026

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	436	318	329	361
H	337	257	266	287
I	425	155	454	344
J	457	324	305	362
K	1031	569	1011	870
L	851	-	-	851
M	453	374	443	423
N	108	129	107	115
P	274	229	247	250
Q	573	623	463	553
R	310	473	473	419
S	309	103	169	194

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate Activities; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

### 9.17 BARMM

#### GVA per employed person (in PHP thousands per worker)

Industry	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
G		81	94	114	129	156	141	120	121	95	85	70	55
H		94	103	116	129	168	172	131	132	94	112	99	94
I		79	215	198	336	369	224	251	149	104	229	32	80
J		5800	3788	4086	5279	10380	24588	6535		4335	7107	2601	
K		1538	1619	2134	2122	1980	1651	1734	2751	3603	5994	2105	1041
L						98915	91916	43823			175907		
M&N	114	130	113	89	129	103	78	82	102	72	95	93	87
P	330	370	286	365	409	796	819	842	697	698	572	521	376
Q	2183	516	785	977	762	1168	793	1854	769	711	1030	517	1180
R&S	127	121		1656		79	64	72	51	29	34	30	30

Note: G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA Regional Accounts, LFS

#### GVA per hour worked (in PHP thousands)

Industry	2018	2019	2020	2021	2022	2023	Average
L	12.618	-	12.069	-	25.883	-	16.856
J	-	2.850	6.113	1.234	4.470	1.089	3.151
K	0.339	0.312	3.331	1.035	0.431	0.936	1.064
Q	0.366	0.559	0.656	0.241	0.376	0.234	0.405
P	0.517	0.503	0.449	0.311	0.297	0.267	0.391
I	0.077	0.095	0.049	0.039	0.097	0.017	0.062
H	0.074	0.047	0.039	0.033	0.042	0.042	0.046
G	0.045	0.039	0.042	0.035	0.029	0.033	0.037
M & N	0.027	0.027	0.028	0.025	0.038	0.041	0.031
R & S	0.025	0.031	0.028	0.013	0.015	0.015	0.021

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: PSA, LFS

#### Productivity at the establishment level (in PHP thousands per worker)

Industry	2019	2020	2021	Average
G	189	163	304	219
H	145	284	301	244
I	62	120	170	117
J	126	98	416	214
K	265	258	1210	578
L	-	-	-	-
M	279	47	217	181
N			66	66
P	137	125	117	127
Q	239	185	188	204
R	-	-	-	-
S	94	46	75	72

Note: - = no observation; G = Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles; H = Transportation and Storage; I = Accommodation and food service activities; J = Information and Communication; K = Financial and Insurance Activities; L = Real Estate and Ownership of Dwellings; M = Professional, Scientific And Technical Activities; N = Administrative and support service activities; P = Education; Q = Human Health and Social Work Activities; R = Arts, Entertainment and Recreation; and S = Other Service Activities

Source: ASPBI

## 10 Annex 3. Employment by services subsector and occupation, selected years

### 2013

In 2013, managers, service and sales workers, and those in elementary occupations accounted for the bulk of employment in low-productivity service sectors. Among low-productivity sectors, the Transportation and Storage sector has the highest share of managers. It also relies heavily on Plant and Machine Operators and Assemblers (37% of the sector's workers). The majority of workers in the Accommodation and Food Service Activities are services and sales workers, while the majority of workers in the Other Services are elementary occupation workers.

In terms of high-productivity service sectors, the dominant occupations are managers, professionals, technicians and associate professionals, and clerical support workers. In the medium-productivity services sectors, professionals, clerical support workers, and service and sales workers compose the majority of occupations.

#### Selected services sectors: number of employed persons by occupation, 2013

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Other Occupations Not Classifiable	Total
TOTAL (Selected services subsectors)	4757878	1604654	581009	1678328	4337920	372134	1298713	3466079	29600	18126317
<b>Major industry group</b>										
Accommodation and Food Service Activities	333279	6479	15558	107729	852845	9964	8491	347028		1681373
Education	53583	1003119	73595	53016	6190	8656	4372	46024		1248556
Financial and Insurance Activities	90294	51453	55505	266669	334		1731	24660		490647
Human Health and Social Work Activities	19475	264666	64643	52326	40878	2713	4190	16299		465190
Information and Communication	71035	62915	52682	85062	14226	34991	6646	11095		338652
Real Estate and Ownership of Dwellings	58238	7307	52996	18266	2695	3310	1762	16729		161302
Transportation and Storage	1253388	6748	12852	89710	62159	18716	1006768	302779		2753120
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	2601827	37013	64382	370740	2461190	234774	114954	1331439	28829	7245148
Professional and Business Services	96685	104518	63753	471476	410252	7523	15309	101489	448	1271453
Other Services	180075	60435	125042	163334	487150	51488	134491	1268538	322	2470877

Source: Authors' compilation based on the 2013 LFS (October round)

#### Low productivity services sector: employment share by primary occupation, 2013

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Other Occupations Not Classifiable	Total
Sub-total (Low labor productivity)	31%	1%	2%	5%	27%	2%	9%	23%	0%	100%
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	36%	1%	1%	5%	34%	3%	2%	18%	0%	100%
Transportation and Storage	46%	0%	0%	3%	2%	1%	37%	11%	0%	100%
Accommodation and Food Service Activities	20%	0%	1%	6%	51%	1%	1%	21%	0%	100%
Other Services	7%	2%	5%	7%	20%	2%	5%	51%	0%	100%

Source: Authors' calculation based on the 2013 LFS (October round)

#### Medium productivity services sector: employment share by primary occupation, 2013

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Other Occupations Not Classifiable	Total
Sub-total (Medium labor productivity)	6%	46%	7%	19%	15%	1%	1%	5%	0%	100%
Professional and Business Services	8%	8%	5%	37%	32%	1%	1%	8%	0%	100%
Education	4%	80%	6%	4%	0%	1%	0%	4%	0%	100%
Human Health and Social Work Activities	4%	57%	14%	11%	9%	1%	1%	4%	0%	100%

Source: Authors' calculation based on the 2013 LFS (October round)

### High productivity services sector: employment share by primary occupation, 2013

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Other Occupations Not Classifiable	Total
Sub-total (High labor productivity)	22%	12%	16%	37%	2%	4%	1%	5%	0%	100%
Financial and Insurance Activities	18%	10%	11%	54%	0%	0%	0%	5%	0%	100%
Real Estate and Ownership of Dwellings	36%	5%	33%	11%	2%	2%	1%	10%	0%	100%
Information and Communication	21%	19%	16%	25%	4%	10%	2%	3%	0%	100%

Source: Authors' calculation based on the 2013 LFS (October round)

## 2018

Managers, service and sales workers, and those in elementary occupations account for the bulk of employment in low-productivity service sectors. The share of workers in elementary occupations decreased across most sectors, except in the Other Services sector, which recorded an increase of one percentage point.

Occupations such as managers, professionals (mainly due to the Information and Communication sector), technicians and associate professionals, and clerical support workers dominate the high-productivity sectors. While the share of managers decreased from 2013 to 2018, the proportion of technicians and associate professionals increased across all high-productivity sectors. In addition, the decline in clerical support workers is mainly attributed to the Information and Communication sector.

In the medium-productivity industries, professionals, clerical support workers, and service and sales workers comprise the majority of occupations. These patterns are similar to those observed in 2013. From 2013 to 2018, across the medium-productivity service sectors, the share of managers decreased in all sectors, while Service and sales workers increased across all medium-productivity service sectors.

### Selected services sectors: number of employed persons by occupation, 2018

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
TOTAL (Selected services subsectors)	5370279	1728339	930498	1741894	5734043	416516	1626873	3227871	20776312
<b>Major industry group</b>									
Accommodation and Food Service Activities	328795	6256	32314	56855	1112216	6855	19876	295803	1858970
Administrative and Support Service Activities	47052	47092	78306	646821	629986	4934	13831	105270	1573292
Arts, Entertainment and Recreation	26963	32595	23651	138836	58307	2606	9389	50891	343237
Education	27463	1055817	34217	46786	44299	2380	5049	40365	1256377
Financial and Insurance Activities	76899	28985	100555	285354	16229	708	4266	17897	530893
Human Health and Social Work Activities	9501	225197	123153	51724	67513	2868	3564	31949	515468
Information and Communication	81025	99331	75712	72461	25376	33988	1381	10192	399466
Other Service Activities	37913	47056	120879	16517	682347	95707	145386	1508958	2654763
Professional, Scientific and Technical Activities	22190	125572	60063	66974	2599	3856	2079	6750	290083
Real Estate and Ownership of Dwellings	46504	5957	88991	24434	17621		2732	10993	197232
Transportation and Storage	1337455	2344	23329	105306	74757	19809	1283866	317001	3163867
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	3328519	52138	169329	229824	3002793	242805	135455	831802	7992665
Professional and Business Services	69242	172665	138369	713796	632585	8791	15910	112020	1863376

Other Services	64875	79650	144529	155353	740654	98313	154775	1559849	2998000
----------------	-------	-------	--------	--------	--------	-------	--------	---------	---------

Source: Authors' compilation based on the 2018 LFS (October round)

### Low productivity services sectors: employment share by primary occupation, 2018

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
Sub-total (Low labor productivity)	32%	1%	2%	3%	31%	2%	10%	19%	100%
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	42%	1%	2%	3%	38%	3%	2%	10%	100%
Transportation and Storage	42%	0%	1%	3%	2%	1%	41%	10%	100%
Accommodation and Food Service Activities	18%	0%	2%	3%	60%	0%	1%	16%	100%
Other Services	2%	3%	5%	5%	25%	3%	5%	52%	100%

Source: Authors' calculation based on the 2018 LFS (October round)

### Medium productivity services sectors: employment share by primary occupation, 2018

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
Sub-total (Medium labor productivity)	3%	40%	8%	22%	20%	0%	1%	5%	100%
Professional and Business Services	4%	9%	7%	38%	34%	0%	1%	6%	100%
Education	2%	84%	3%	4%	4%	0%	0%	3%	100%
Human Health and Social Work Activities	2%	44%	24%	10%	13%	1%	1%	6%	100%

Source: Authors' calculation based on the 2018 LFS (October round)

### High productivity services sectors: employment share by primary occupation, 2018

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Grand Total
Sub-total (High labor productivity)	18%	12%	24%	34%	5%	3%	1%	3%	100%
Financial and Insurance Activities	14%	5%	19%	54%	3%	0%	1%	3%	100%
Real Estate and Ownership of Dwellings	24%	3%	45%	12%	9%	0%	1%	6%	100%
Information and Communication	20%	25%	19%	18%	6%	9%	0%	3%	100%

Source: Authors' calculation based on the 2018 LFS (October round)

## 2024

Service and Sales Workers, Plant and Machine Operators and Assemblers, and those in elementary occupations account for the bulk of employment in low-productivity service sectors. The share of Service and Sales Workers has generally increased in low-productivity sectors particularly from 2018 to 2024. Additionally, the share of Plant and Machine Operators and Assemblers notably increased from 9 percent to 17 percent over the same period, a rise mainly attributable to the Transport and Storage sector. From 2013 to 2024, the share of managers had significantly dropped, while the shares of service and sales workers and plant and machine operators and assemblers had nearly doubled. The share of elementary occupations slightly decreased.

Occupations such as Managers, Professionals, Technicians and Associate Professionals, and Clerical Support Workers dominate the high-productivity sectors. The share of managers is decreasing, compared to the share in 2013 and 2018 across all high-productivity sectors, while the share of Professionals increased from 2018 to 2024 across all high-productivity sectors, except in Real Estate and Ownership of Dwellings. A pronounced shift occurred in the Information and Communication sector, which saw significantly fewer managers and more professionals in 2024 compared to 2013. In Real Estate and Ownership of Dwellings, the number of managers significantly decreased from 2013

to 2024, while the numbers of technicians and associate professionals and service and sales workers significantly increased.

In the medium-productivity industries, professionals, clerical support workers, and service and sales workers comprise the majority of occupations. These patterns are similar to those observed in 2013 and 2018. The share of clerical support workers in medium-productivity sectors increased from about 19 percent to 30 percent between 2013 and 2024. This increase was mainly driven by the Professional and Business sector. Conversely, the share of professionals in these sectors declined from 46 percent to 36 percent during the same period. The decrease in professionals is mainly attributed to the Human Health and Social Work Activities sector, although the number of technicians and associate professionals in that same sector doubled. Furthermore, the number of clerical support workers increased due to the Professional and Business Services sector.

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
TOTAL (Selected services subsectors)	1028143	2473634	1209408	2870675	10749539	333	509834	3251246	4402543	26495355
<b>Major industry group</b>										
Accommodation and Food Service Activities	253768	10753	66149	82934	1649333	0	8348	31265	431595	2534146
Education	31029	1397638	32949	58893	75417	0	0	4952	26539	1627417
Financial and Insurance Activities	85729	80107	134927	366758	24339	0	566	7021	14242	713689
Human Health and Social Work Activities	10120	376635	203323	64687	87981	0	960	3817	30750	778273
Information and Communication	40695	202027	103170	110530	31360	0	45265	4060	3003	540110
Real Estate and Ownership of Dwellings	33513	6535	96482	23854	58275	0	0	4667	14137	237463
Transportation and Storage	55378	11135	37653	177978	90026	0	11402	2858105	495923	3737600
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	387582	56374	141563	198490	6977295	333	347934	192900	1485007	9787479
Professional and Business Services	88602	234924	207159	1592108	878193	0	3803	28614	206431	3239834
Other Services	41729	97506	186032	194442	877320	0	91555	115844	1694917	3299344

Source: Authors' compilation based on the 2024 LFS (October round)

#### Low productivity services sectors: employment share by primary occupation, 2024

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
Sub-total (Low labor productivity)	4%	1%	2%	3%	50%	0%	2%	17%	21%	100%
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	4%	1%	1%	2%	71%	0%	4%	2%	15%	100%
Transportation and Storage	1%	0%	1%	5%	2%	0%	0%	76%	13%	100%
Accommodation and Food Service Activities	10%	0%	3%	3%	65%	0%	0%	1%	17%	100%
Other Services	1%	3%	6%	6%	27%	0%	3%	4%	51%	100%

Source: Authors' calculation based on the 2024 LFS (October round)

#### Medium productivity services sectors: employment share by primary occupation, 2024

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
Sub-total (Medium labor productivity)	2%	36%	8%	30%	18%	0%	0%	1%	5%	100%

Professional and Business Services	3%	7%	6%	49%	27%	0%	0%	1%	6%	100%
Education	2%	86%	2%	4%	5%	0%	0%	0%	2%	100%
Human Health and Social Work Activities	1%	48%	26%	8%	11%	0%	0%	0%	4%	100%

Source: Authors' calculation based on the 2024 LFS (October round)

### High productivity services sectors: employment share by primary occupation, 2024

Section	Managers	Professionals	Technicians and Associate Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Agricultural, Forestry and Fishery Workers	Craft and Related Trades Workers	Plant and Machine Operators and Assemblers	Elementary Occupations	Total
Sub-total (High labor productivity)	11%	19%	22%	34%	8%	0%	3%	1%	2%	100%
Financial and Insurance Activities	12%	11%	19%	51%	3%	0%	0%	1%	2%	100%
Real Estate and Ownership of Dwellings	14%	3%	41%	10%	25%	0%	0%	2%	6%	100%
Information and Communication	8%	37%	19%	20%	6%	0%	8%	1%	1%	100%

Source: Authors' calculation based on the 2024 LFS (October round)