



SECRETARIAT OF STATE FOR VOCATIONAL TRAINING AND EMPLOYMENT

SECRETARIAT FOR NATIONAL EMPLOYMENT & STRATEGY

CENTRE FOR LABOUR MARKET INFORMATION

# TIMOR-LESTE ENTERPRISE & SKILLS SURVEY 2022



**SECRETARIAT OF STATE FOR VOCATIONAL TRAINING AND EMPLOYMENT**

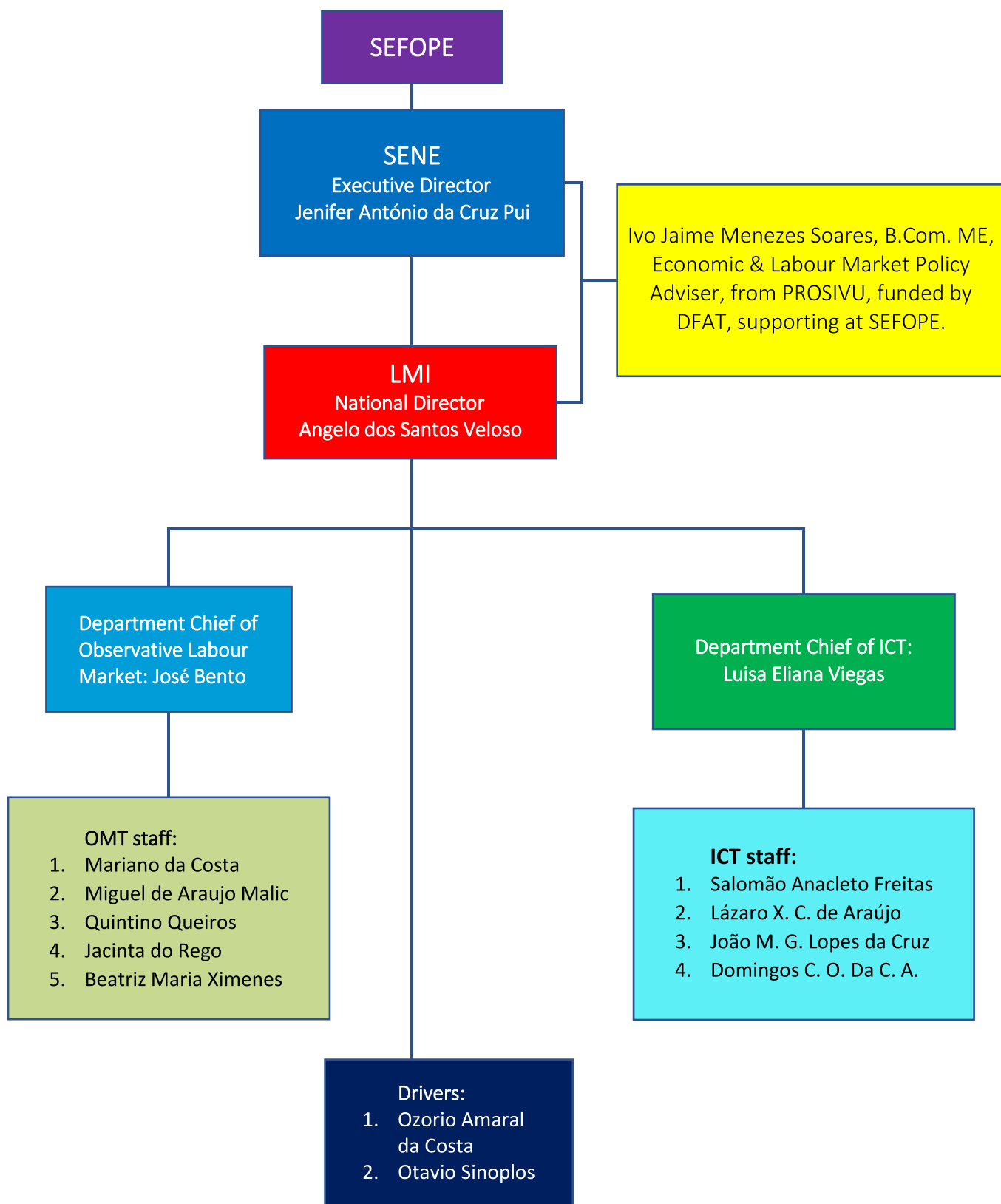
**SECRETARIAT FOR NATIONAL EMPLOYMENT & STRATEGY**

**CENTRE FOR LABOUR MARKET INFORMATION**

## **TIMOR-LESTE ENTERPRISE & SKILLS SURVEY 2022**

**(Skills Demanded by the Enterprises and Industries in Timor-Leste)**

**STRUCTURE OF CENTRE OF THE LABOUR MARKET INFORMATION (LMI) IN SEFOPE:**



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\*Enterprise Skills Survey 2022 Report is produced in both Tetum & English Languages.

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## ABBREVIATIONS AND ACRONYMS

BAS	Business Activity Survey
LMI	Labour Market Information
DFAT	Department of Foreign Affairs and Trade
ESS	Enterprise and Skills Survey
PROSIVU	Partnership for Inclusive Prosperity
INSS, IP	National Institute for Social Security, Public Institute
ISIC	International standard Industrial Classification
ISCO	International Standard Classification of Occupations
ILO	International Labour Organization
SEFOPE	Secretariat of State for Vocational Training and Employment
SENE	Secretariat for National Employment and Strategy
SERVE,IP	Business Registration and Verification Service, Public Institute
TVET	Technical and Vocational Education and Training



## PREFACE

The Secretariat of State of Vocational Training and Employment, Secretariat for National Employment and Strategy, through the Centre of Labour Market Information (LMI) is very proud to be able to present the Timor-Leste Enterprise and Skills Survey 2022 (ESS 2022).

The main objective of the ESS is to identify skills demanded by the enterprises and industries in the labour market of Timor-Leste. The ESS 2022 fields data collection was conducted by researchers from the Centre of the of Labour Market Information, over a period of Four months from April to August 2022.

This report develops on the Enterprise and Skills Survey of 2019, 2017, and 2016. The data and main indicators are generally comparable and aim to construct time-series data that can be analyzed over an extended period. Indicators such as employers, employees, vacancies, future recruitments, hard-to-fill vacancies, monthly salary, workers training, and other information are reported in the same format as the ESS 2019, 2017 and 2016.

The report shows that the three main economic sectors that employed more workers were wholesale and retail trade, constructions and accommodation and food services.

SEFOPE will continue to disseminate the results of the ESS to the public and other relevant stakeholders. Through LMI there will be local briefings and we will seek your input in developing effective employment and training policies to build our workforce. As always, SEFOPE would like to thank all the businesses and other stakeholders that participated in this survey. We would also like to thank INSS, IP and SERVE, IP for providing lists of population of enterprises in Timor-Leste for contributing to this survey. On-going cooperation in the future will be vital to improving the accuracy of the survey.

The ESS 2022 was conducted by the Centre of Labour Market Information (LMI), with technical support from the PROSIVU Program, funded by DFAT. We are very grateful for the support of PROSIVU in assisting us with the development of Labour Market Survey in SEFOPE.

Finally, we would like to express our immense gratitude to International Labour Organization (ILO) in providing us financial support for the data collection activities in the fields.



Alarico de Rosário

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Secretary of State of SEFOPE

## EXECUTIVE SUMMARY

This ESS 2022 update to the 2019 Enterprise and Skills Survey helps us understand how the labour market in Timor-Leste is developing over time. It is based on a multi-stage stratified sample of enterprises, with extrapolation based on the total number of registered businesses in the country. The field research was carried out by SEFOPE staff and supported by a consultant from PROSIVU, between April and August 2022, using tablets to administer the survey. The 2022 Enterprise and Skills Survey (ESS) is presented as an update of the 2019 ESS, and highlights the changes observed since the previous ESS.

### Enterprise and Employee Profiles

The survey results of 2022 show a negative growth in employment about -1% growth in 2022 although there was also decreasing in employment growth in 2019 about -2.3%. There were 6,256 enterprises in operations in the business sector of the economy, engaging a total of 53,120 employees. Though 84% were micro enterprises with less than 10 workers, there is a trend towards larger enterprises, with average number of employees growing to 1.5% if compared to 2019. The data suggests an increasing in foreign ownership to 39% in 2022, and 22% in 2019.

Total number of Enterprises	Total number of Employees	Micro-enterprises (<10 employees)	Enterprises in Dili
6,256	53,120	84%	56%

Three branches of economic activity continued to dominate the business sector in Timor Leste; 66% of enterprises in wholesale and retail trade, constructions and accommodation and food service.

Wholesale and retail and Construction continues to dominate the economy, with a rise in proportion of enterprises in the sector to 54% if compared to 2019 of 32%. Construction sector dropped in 2022 of 22% and rose to 45% in 2019.

Note that as this is an enterprise focused survey, it does not capture subsistence farmers or 'own account' workers, a substantial proportion of the labour force in Timor-Leste.

## Location of Enterprises

	2022		2019	
	Enterprises	Employees	Enterprises	Employees
<b>Dili</b>	56 %	69 %	55%	72%
<b>Municipalities</b>	44 %	31 %	45%	28%

The data suggest a sharply shift of business and employment from Dili to the municipalities. This may reflect the dominance of the construction sector providing employment outside of Dili. The survey team also experienced relatively lower response rates in Dili, which may skew the data in favor of the municipalities.

Total number of employees	Female employees	Foreign employees
53,120	16,880	7,248
100%	32%	14 %

Female participation in the labour force decreased to 32% in 2022 if compared to 34% in 2019. There was an increase in foreign employment of about 14% in 2022 and 11% in 2019. The total number of foreign employees increased to 7,248 in 2022 and 5,676 in 2019. Though there is a correlation between rising wages in occupational groups and foreign hires because in 2022, there is rising in wages for managers and professionals' positions and due to the size of economic recovery more foreign workers come.

The size of enterprises is growing, and there is a positive outlook with many enterprises expecting to increase hiring in 2022. Enterprises increased slightly to total of 97 in 2022, from 6,159 in 2019 and 6,256 in 2022. About 78% of employment growth comes from growth of existing firms, which suggests that support to enterprises to grow and expand should not be ignored in favour of creating new enterprises, though this is also important. Employment creation in 2022 was about 5,088 if compared to 2019 was about 2,591. For example, wages increased for the managers positions from USD 504 in 2019 to USD 592 in 2022. Employees enjoyed on average a 2% increase in wages in 2022, to USD 262 compared to wages of USD 255 in 2019.

## Conducting the survey

SEFOPE is developing a system to conduct an update of the ESS on an annual basis, using tablets for data collection to improve the accuracy and speed of data collection. Several challenges persist in conducting this survey, such as getting base data from other government agencies (SERVE, IP and INSS, IP) to construct an accurate sampling framework, difficulty in locating enterprises, the stop-start nature of many enterprises during the year, and insufficient financial to conduct the field work.

## METHODOLOGY

### Sample Design

Enterprise & Skills Survey 2022 comprises a sample of 550 enterprises around Timor-Leste; consist of 316 enterprises from Dili capital and 234 from municipalities. Population data of enterprises was provided by the INSS, IP and SERVE, IP, used as for the sample designing. Enterprise & Skills Survey 2022 covers five economic activities sector which dominated in the economic activities in Timor-Leste such as Wholesale and retail, constructions, Administration support services, manufacture, and others.

### Data Collection

The ESS 2022 fields data collection was conducted by researchers from the Centre of the of Labour Market Information SEFOPE in 13 municipalities, over a period of Four months from April to August 2022. Questionaries for ESS 2022 is developed from the previous ESS of 2019, 2017 and 2016. During the data collection activities in the fields, SEFOPE used the tablets with the application tool called KoboToolBox to capture and analyse the data.

### Sampling Error

This ESS 2022 utilized multi-stage stratified sample of enterprises, with extrapolation based on the total number of registered businesses in the country. The total sample for ESS 2022 is  $n = 550$ , and the margin of sampling error for the sample is  $\pm 3.9$  percent at a 95 percent confidence level. So, it shows that the standard error of ESS 2022 is precise and exact. ESS 2022 is also considered about the responses and non-responses rate.

For further details regarding the sample errors, please find the attached about the measurement error in the page 24.

## 1. INTRODUCTION

The 2022 Enterprise and Skills Survey builds on the ESS of 2019, 2017, and 2016. The 2022 ESS serves as an update of the 2019 ESS. In general, this report will only highlight differences observed in the data, along with some interpretation of the changes and additional information.

The main purpose of the Enterprise and Skills Survey (ESS) is to measure the evolution of labour demand and skill needs across different sectors of the economy. The data provide crucial information for policy formulation and development of the education system and in particular the vocational training programmes of the country. In addition, the survey provides information on vacancies and recruitment and separation patterns in key occupations as well as the future demand for labour in different occupations and branches of economic activity.

As with any sample-based survey, the data presented here are extrapolated from the survey data, and as such are estimates of the real situation plus or minus margins of error. See (p. 24) for further detail. In some cases, low response rates have led to small sample sizes, so care must be taken in extrapolating from them. Also, the poor quality of data obtained from other government departments on the number of registered enterprises, reduces the accuracy of the sample taken.

Centre of Labour Market Information (LMI) plans to conduct updates to the ESS each year, and due to depending on the technical support from other agencies or programs, and due to pandemic of Covid-19, the ESS 2020 and 2021 were not conducted. To reduce the time and cost in administering the survey, a Labour Market Information System (LMIS) must be developed in order to link and match the labour demand and supply via digitalization system. For example, developing SIMU-web system to link and match the labour demand supply to one another via online platform. The use of tablets and the KoboToolBox survey software will also help streamline this process.

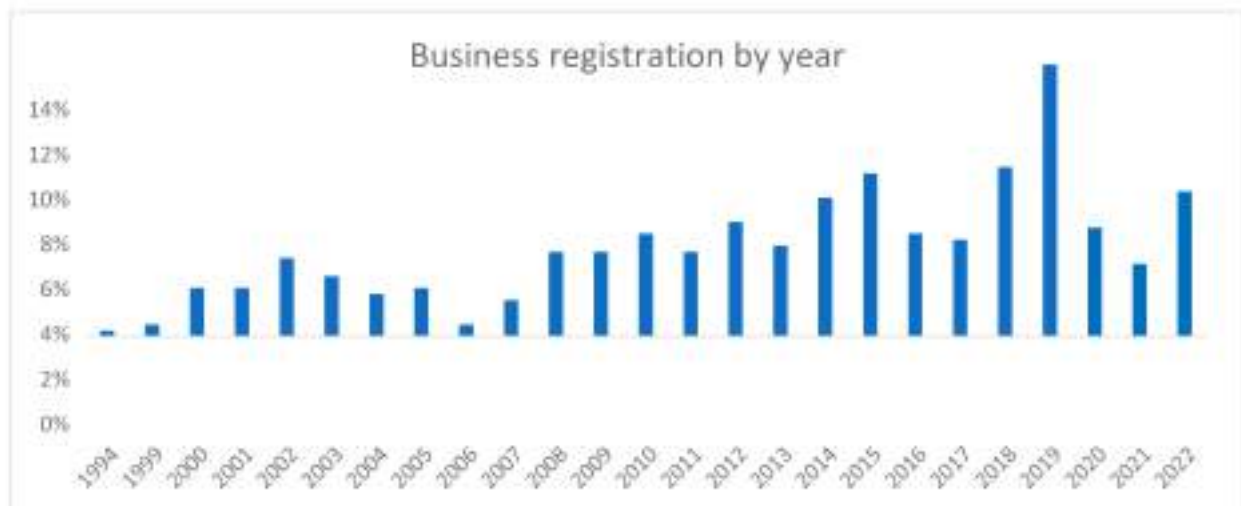
## 2. ENTERPRISE AND EMPLOYEE PROFILES

This section looks at the number, distribution, size and employee profiles of enterprises registered with SERVE, IP.

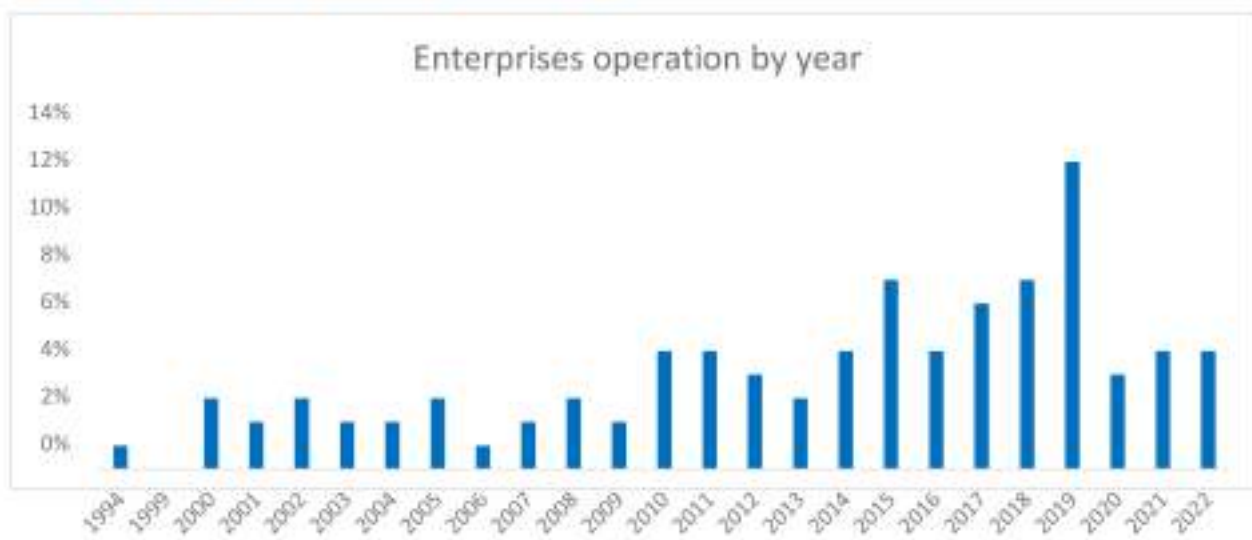
### Year of registration of enterprises

The ESS 2022 survey estimates that around 528 new business registered which correspond to about 6 % of all business in operation currently if compared to 9% increase in 2019.

The bars in the graph below shows the percentage of active business registered by year on the left-hand scale.

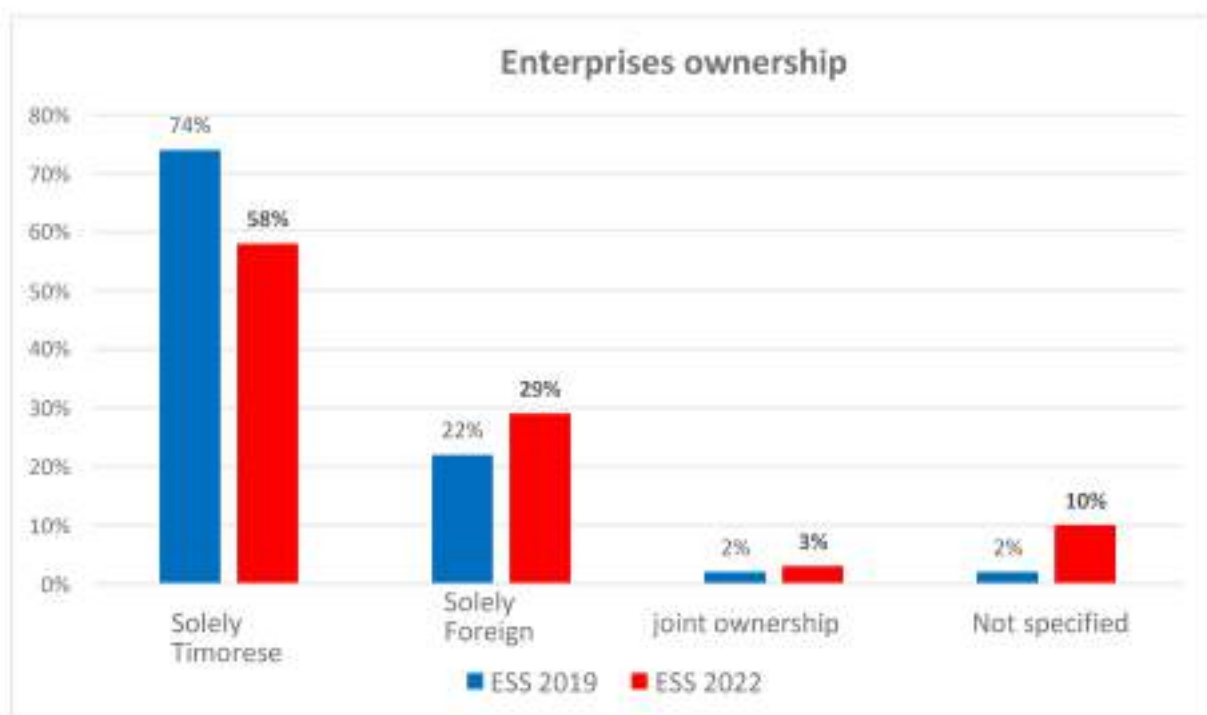


### Year of Enterprises operation its activities



## Timorese and Foreign Ownership

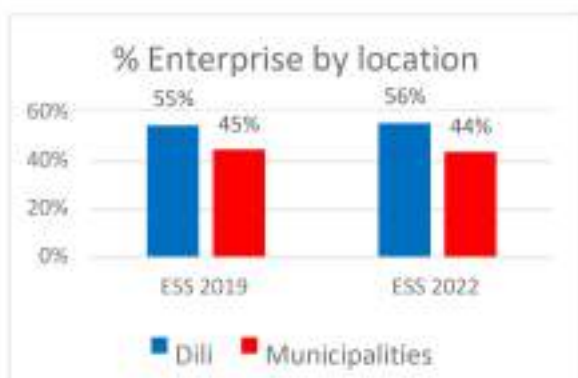
The survey demonstrates a significant change in patterns of ownership by Timorese or foreigners between from 2016 to 2022. There was rise in Timorese Ownership from 2016 to 2019, however, it decreased in 2022. For instance, there was decreased of Timorese ownership of 58% in 2022 and 74% in 2019. There is also a rise in Foreign Ownership in 2022 to 29%. For example, foreign ownership increased (6%) from 23% in 2019 to 29% in 2022.



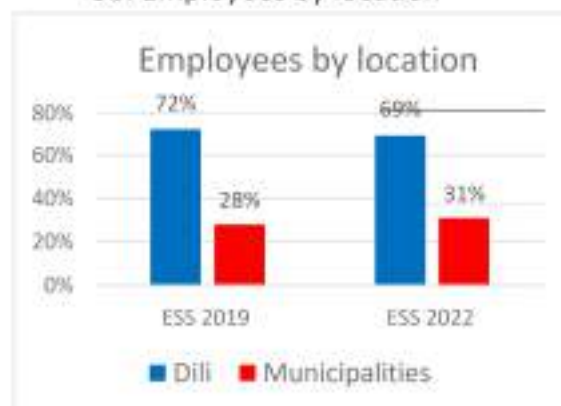


## Location and size of enterprises

3a. Enterprise by location



3b. Employees by location



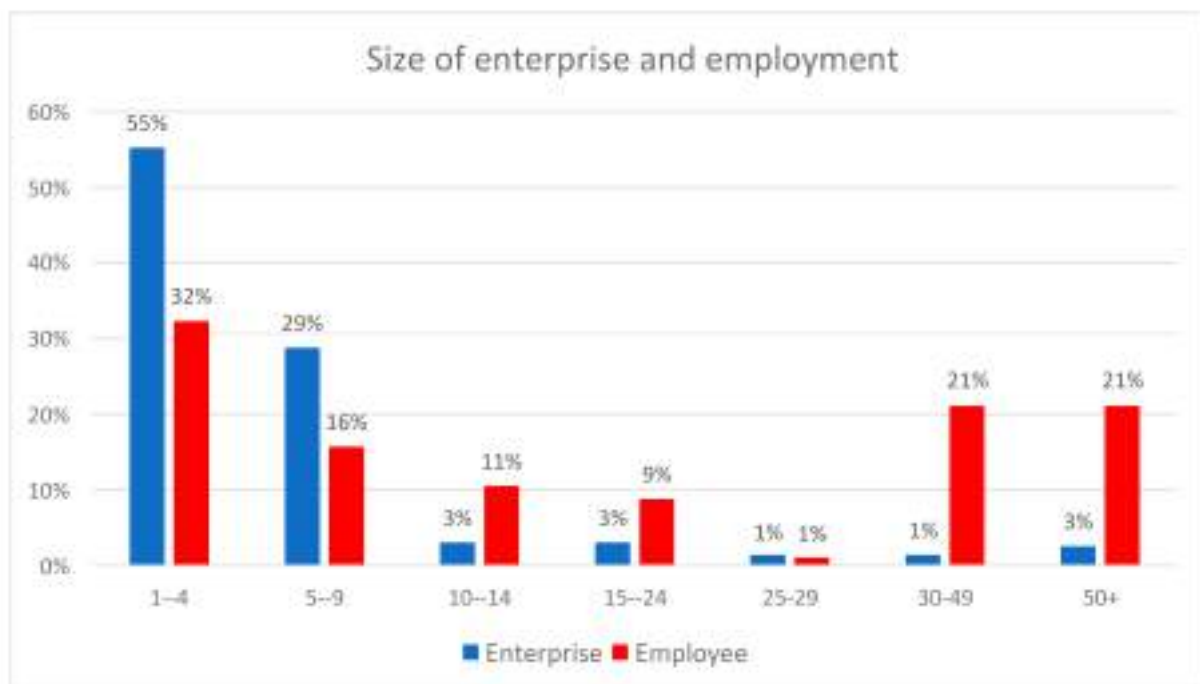
In the bars of enterprises by location, it demonstrates that 44% from the total enterprises in 2022 were operated in municipalities and 55% were operated in Dili, which dropped 1% enterprise growth if compared to enterprise growth in 2019. In Dili, the enterprise growth slightly increased to 1% in 2022.

In regard to employees by location, it shows that the employment growth in 2022 in Dili dropped to 3% if compared to 2019 (from 72% in 2019 and 69% in 2022). It's interesting to note that enterprise growth in municipalities increased slightly to 3% (from 28% in 2019 to 31% in 2022). The trends of enterprise and employment growth are contradicted since the enterprises increased but it decreased in employment specially in Dili.

## Enterprises and employees by size of enterprise

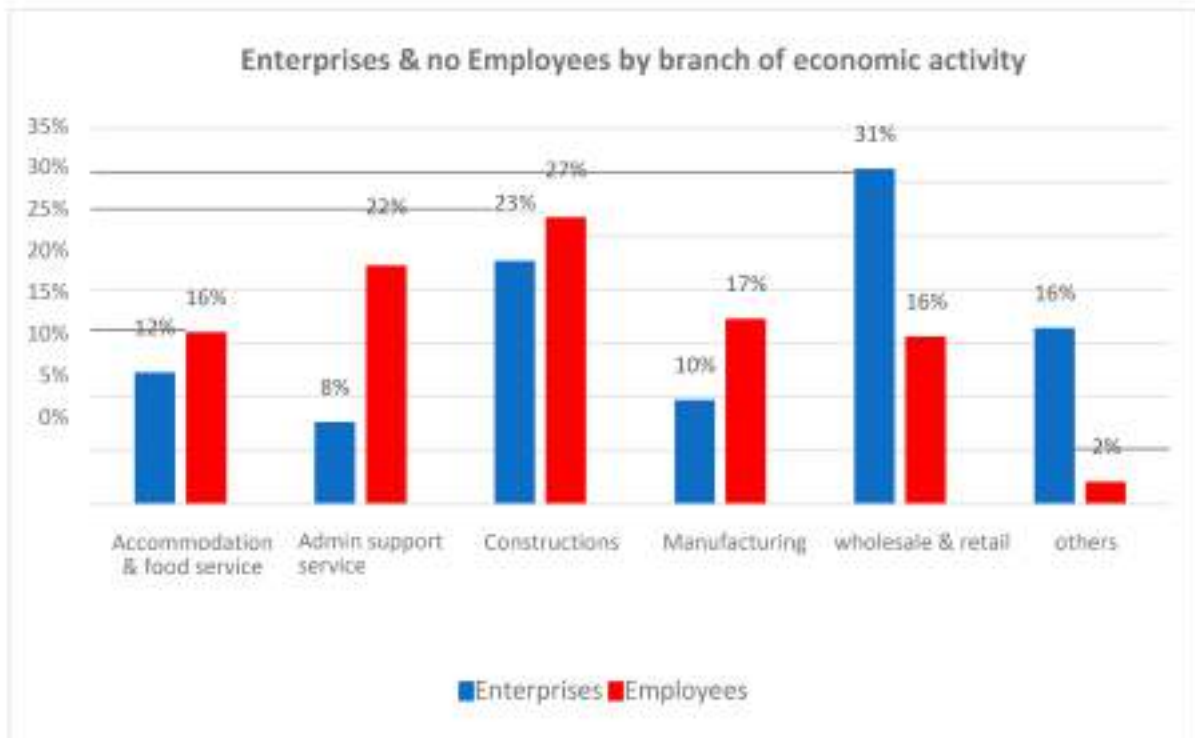
Overall, there appears to be a shift to more employment in small and larger enterprises such as number of employees of 1- 4 and 50+, which may be a sign of the business environment in Timor-Leste maturing. In 2022, the graph demonstrates that number of employees from 1- 4 were less than 10% if compared to 2019 of 65% of enterprises. Number of employees from 5-9 increased to 14% to 29% in 2022.

ESS 2022, shows that enterprises with the number of employees from 15 to 50+, represent 51% of all employees. This is relatively small percentage if compared to 71% in 2019, the enterprises that hired number of employees of 15 and bigger was represented 51% in 2019.



## Branch of economic activity

The diagram below suggests growth in the wholesale & retail, compared to 2019. However, the constructions, manufacturing, accommodation, and food service dropped percentages in 2022 if compared to 2019.

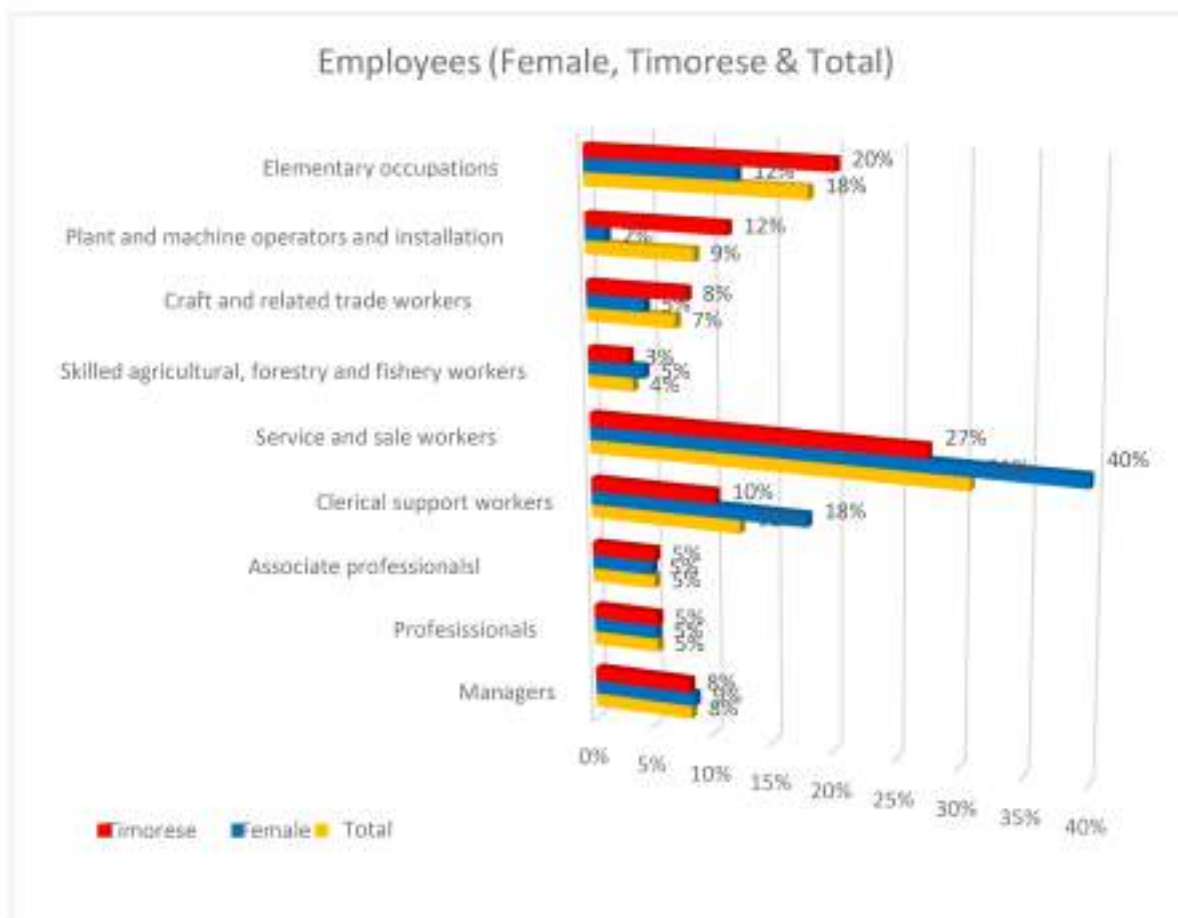


## Occupations, Sex, Foreign and Local Employees

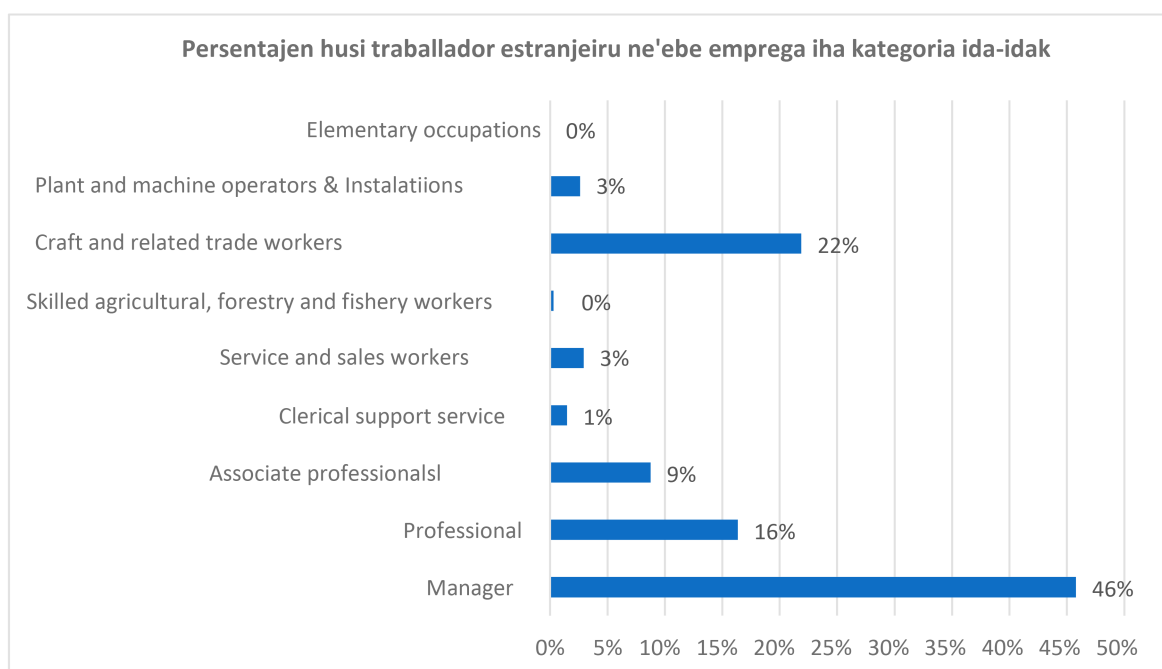
The following diagram demonstrates the percentages based on professional categories (8% from all employees is manager position, and 9% from them are female managers). Each category of (Total, Female and Timorese) are total 100% from all the occupations.



There are small changes in distribution of categories based on the occupations if compared to 2019. For example, composition of female in manager positions increased from 7% to 9% in 2022. Moreover, the other two following changes are clerical support worker rose slightly from 17% to 18% in 2022. Finally, elementary occupations of Timorese decreased from 23% to 20% in 2022.



For each occupation category, the table below shows how many are estimated to be foreigners (eg 46% of all managers). Hence the total across all occupations does not equal to 100%.

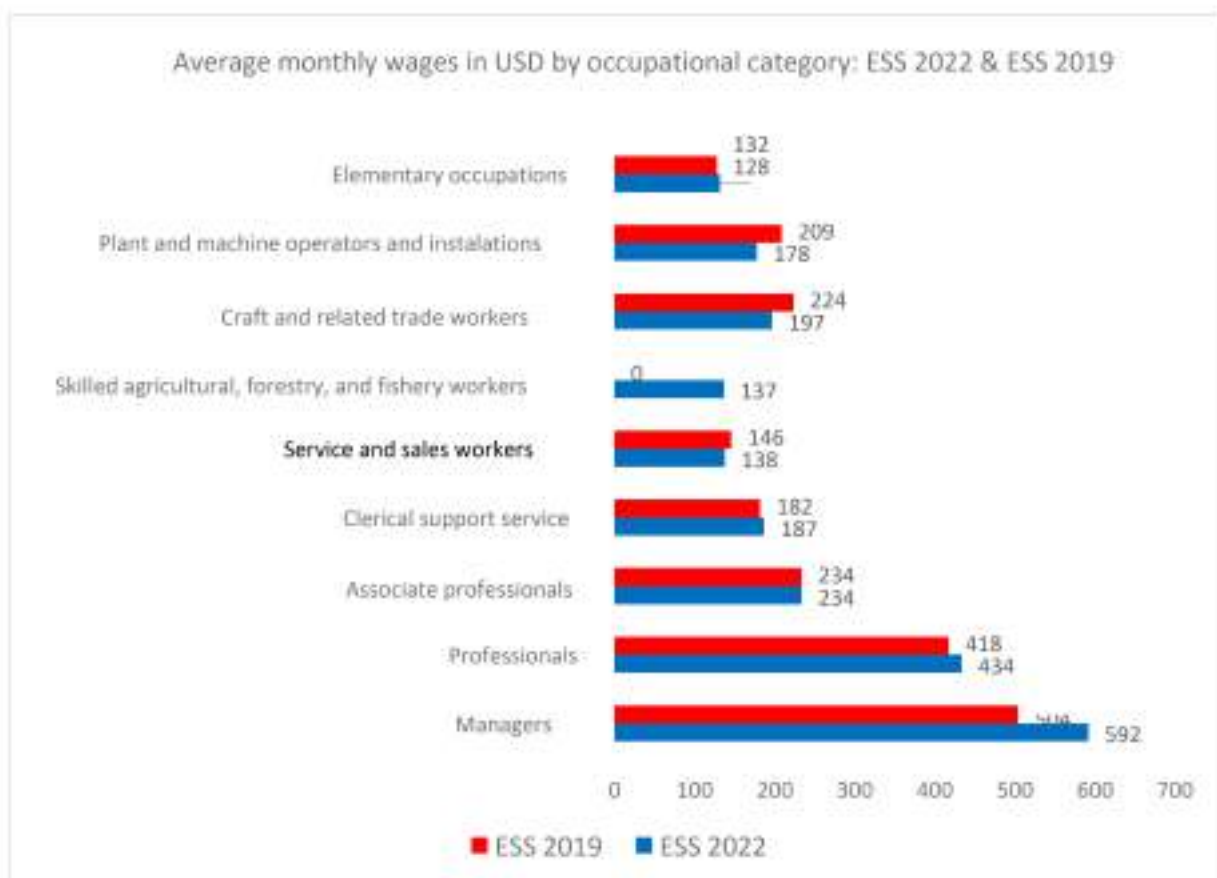


The data shows that there is increase of 21% in foreign employment of 1,572 from 5,676 in 2019 to 7,248 in 2022. There's no change in clerical support services in ESS 2022 and 2019, the percentage of 1% remains the same in 2022 and 2019.

There's significant fluctuation in professional occupations with the dramatically drop to 16% in 2022 if compared to 41% in 2019. However, there's huge change in managers category as it increased significantly to 46% in 2022 compared to 30% in 2019. There's also huge change in craft and related trade workers by increasing dramatically to 22% in 2022 if compared to 6% in 2019. The fluctuation also happened in ESS 2017 and 2019, but its' hard to elaborate due to economic impact in the country.

## Average wages of employees

Generally, average wages observed in ESS 2022 are increasing if compared to in ESS 2019. Average wages for professional occupations rose to 3%, however, there's reduction of 1% to craft and related trade workers and huge reduction for the plant machine and operators & installations to 14%. There's significant increase in average wages of manager occupations to 15% with salary amount of USD 592 in 2022 if compared to managers average wages of USD 504 in 2019. The average wages for the manager occupations amounts are higher than in ESS 2016, 2017 and 2019.



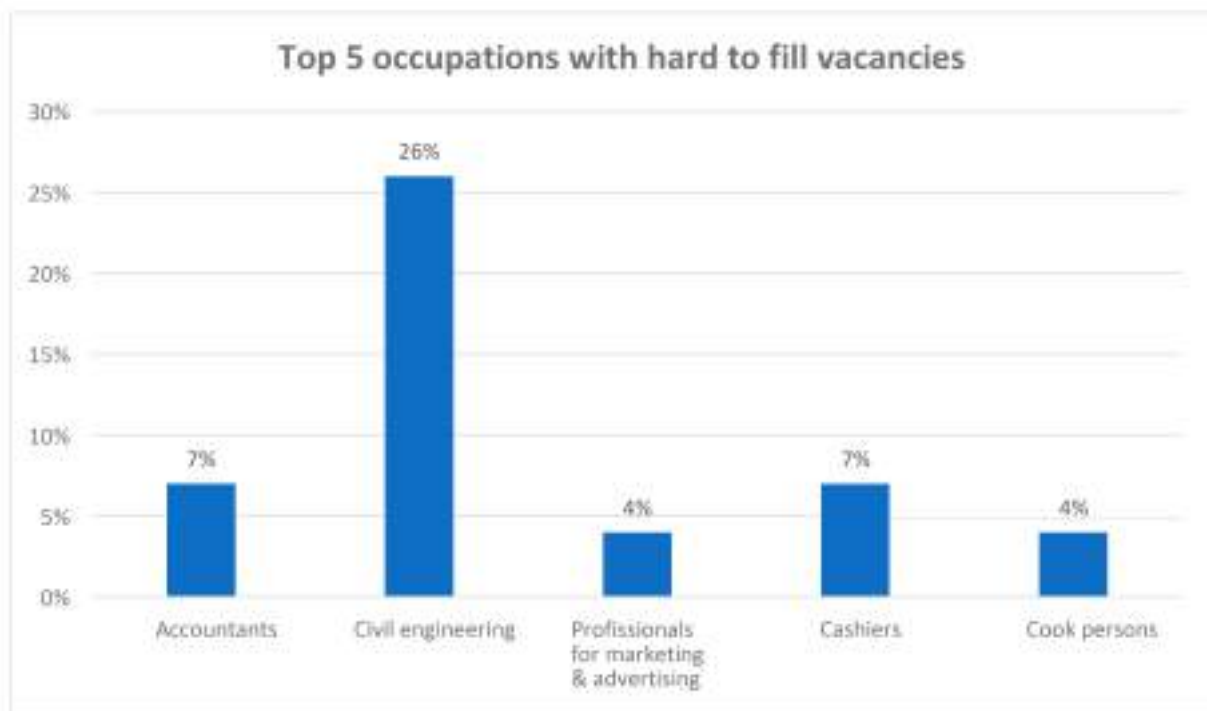
### 3. VACANCIES AND HIRING PRACTICES

#### Vacancies

The estimated vacancies in ESS 2022, demonstrates that the total of 2,160 vacancies were opened throughout the year of 2022, and it's higher if compared to 987 vacancies in ESS 2019. The 22% vacancies opened were related to constructions, 28% was for manufacture and 9% was for wholesale and retails and 41% was for others. Amongst those vacancies, the constructions' vacancies were most needed.

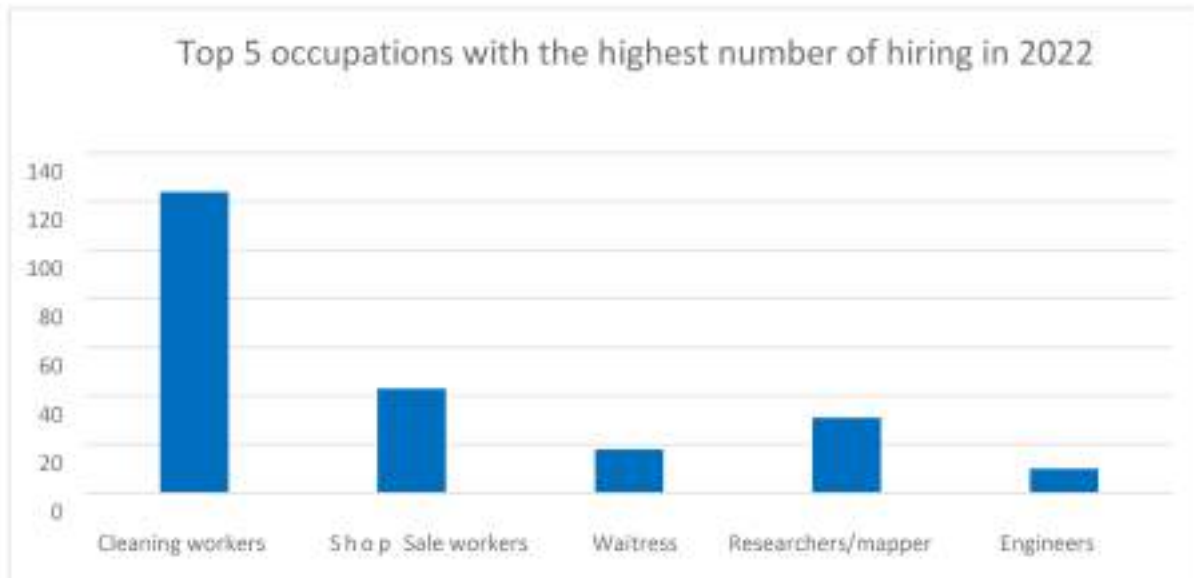
#### Hard - to - fill vacancies

There are top 5 occupations with hard to fill vacancies such as civil engineering, accountants, cashiers, professionals for marketing & advertising, and cook persons (Not chefs). Interesting to note that cashier and cook persons are still in the list of vacancies hard to fill.



## Hiring practices

The number of new hires in 2022 reflects the dominance of the cleaning workers and shop sale workers. Important to note that shop sale workers still become highest recruitment after cleaning workers, in ESS 2017 and 2019.



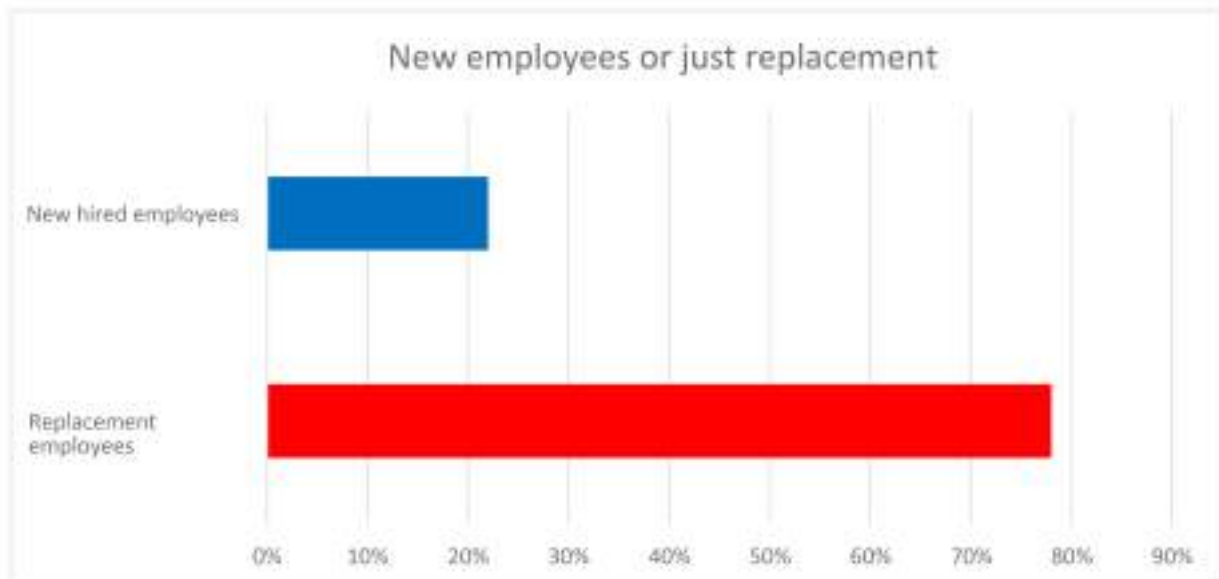
The following skilled demand in the table reflects the foreign hiring employees. Managers, civil engineers, and accountant occupations become higher hiring foreign employees in 2022.

<i>Managers</i>	40
Civil Engineers	20
Accountants	8



## New employees and replacement

In ESS 2022; the recruited employees were in total of 5,088 in 2022, and 22% from this were new hired employees and 78% were only replacement employees. The new employees hired were working in the cleaning service sector, administrations support service and wholesale and retail.



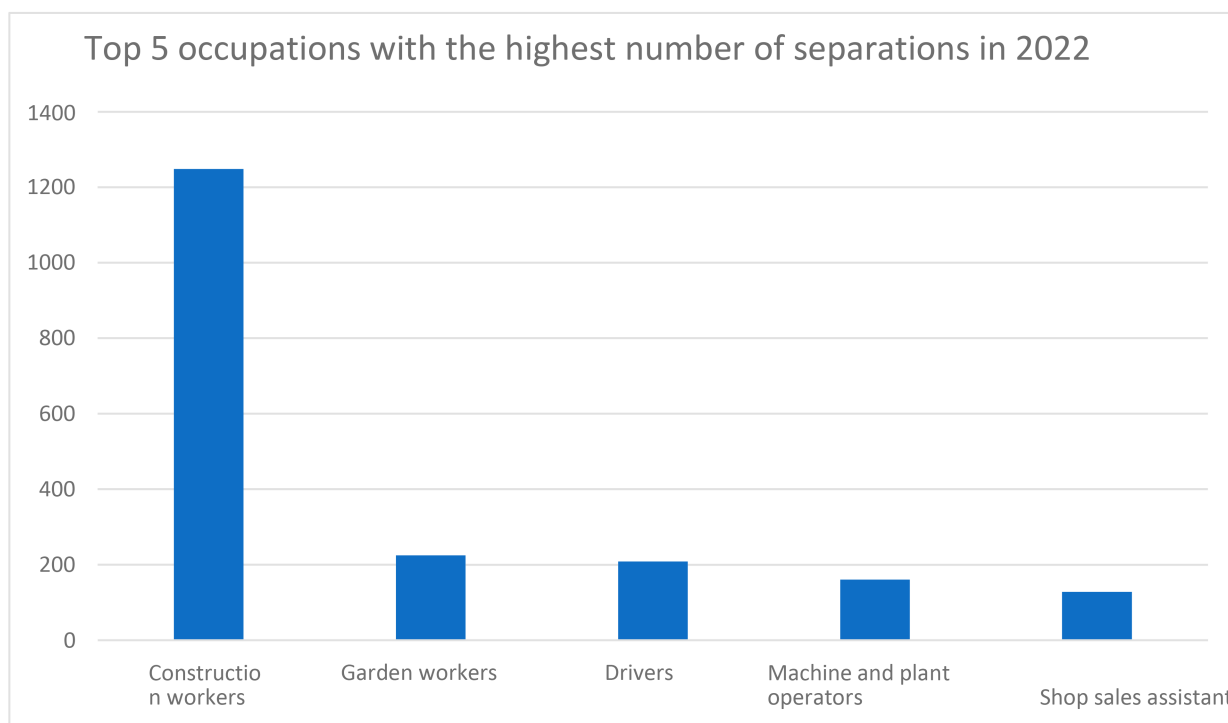
## Separations

The survey results show that the total separation<sup>1</sup> of (2,928) and total hiring of (5,088) in 2022, their difference was in total 2,160 employees. On the other hand, in ESS 2019, the separation was higher that recruitment with the difference of negative 2,450 (1,487 recruitment minus 3,937 separations).

Total hiring in 2022	5,088
Total separation in 2022	2,928
Difference	2160

The diagram below shows the top five occupations with the highest number of separations in 2022. The occupation with the highest number of separations in 2022 was construction labourer (1,248 separations). This high rate of separation is likely due to the temporary and short-term nature of construction projects. Other occupations with high rates of separation include garden workers (224), shop sale assistant (128), plant & machine operators (160) and drivers (208). It is important to note that almost half of these are construction related occupations.

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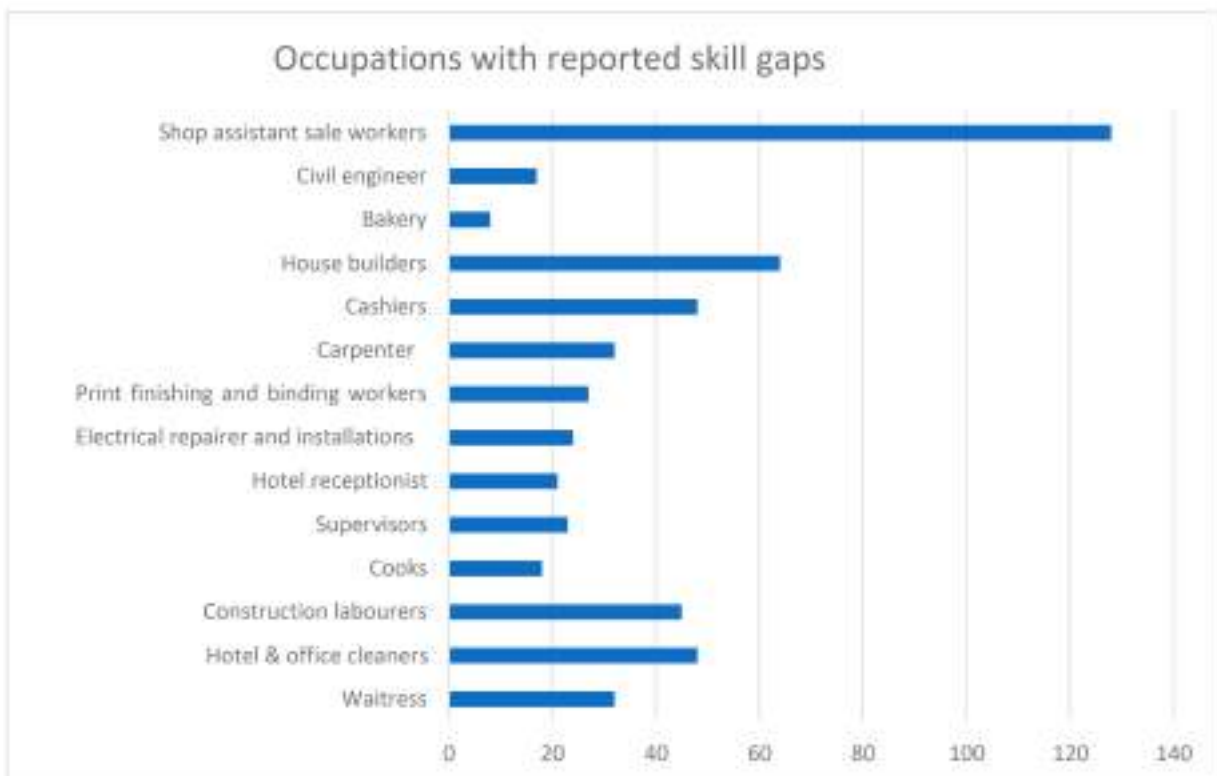
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<sup>1</sup> Separations workers referred to the workers who left the enterprises for some reasons.

## 4. SKILL GAPS AND TRAINING NEEDS

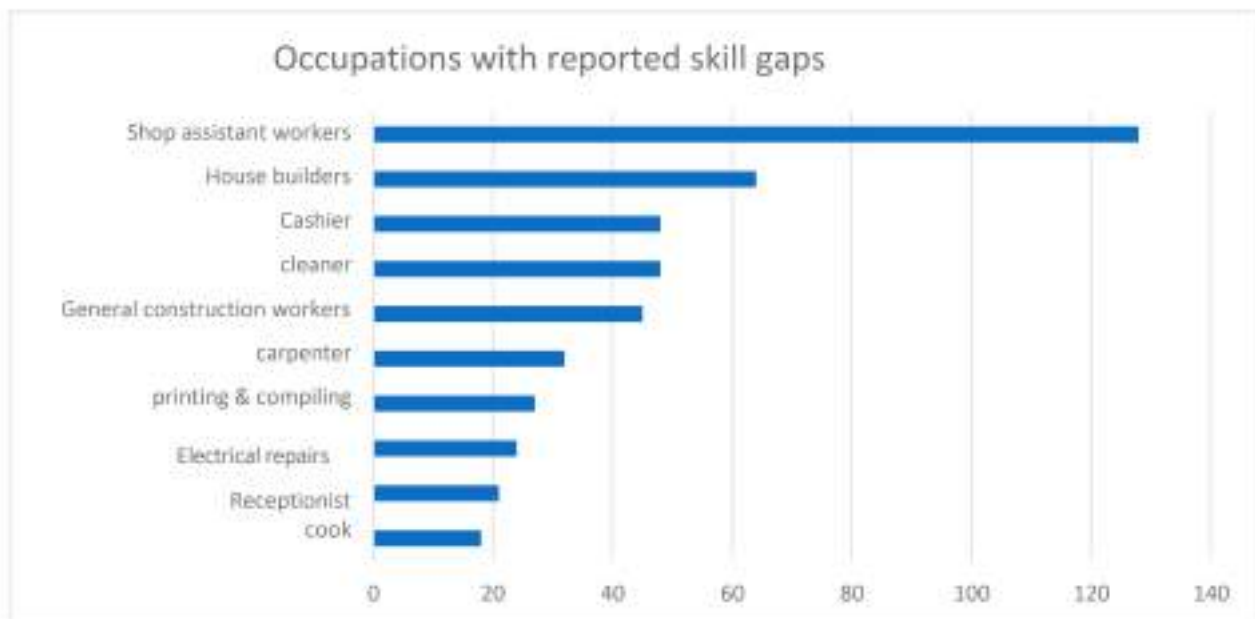
### Skills gaps

Employers were asked to specify the occupations (up to five) in which they found their employees not performing at the required level. Most skills gaps were reported to be in the dominant sectors of construction, wholesale & retail, and cashiers. It's almost the same as ESS 2019. In terms of reported skills gap the total enterprise of in total 387 in ESS 2022 were compared to 651 enterprises in ESS 2019.



## Training needs

The ESS 2022 results show that the top occupation with reported training needs is shop assistant and sale workers involving 128 employees, followed by house builders (64 employees), cashiers (90), cook (48), cleaning workers in hotel and office (48) and carpenter (32). It is important to note that accounting and bookkeeping have been reported in the top five occupations with training needs since 2016 and 2017.



## Direct recruitment from training providers

The chart below shows those occupations where enterprises reported recruiting directly from TVET providers. It shows that enterprises are most likely to recruit directly for construction in house builders, electrical repairs & installations, and cashiers. This is followed by shop sale assistant, admin & finance, receptionist, chef and automotive. This is a significant change of demand in comparison to ESS 2019.



## 5. HIRING INTENTIONS AND JOB FLOWS

### Hiring intentions

The survey results show that around 83% or 5,192 out of 6,256 enterprises expect to maintain their current number of staff in the next 12 months. Only 750 enterprises (12%) expect to increase the number of workers, while a small number of enterprises (5% or 314) expect that the number of workers in their enterprises will decrease. Similar analysis can be done for each breakdown by branch of economic activities and size of enterprises. If compare to the survey results of 2019, there was only 4% of enterprises expected to increase their employees and about 11% of enterprises expected to decrease their workers.

Index of rate of change of labour demand of the business sector in the next 12 months by location, branch of economic activity and size of enterprises

	Total	X			P+	P-	I
		I	0	-1			
Total	6256	750	5192	314	12%	5%	7%
Dili	3503	395	2610	160	12%	6%	6%
Other municipalities	2753	355	2582	154	12%	13%	-1%
Branch of economic activities	6256	750	5192	314	12%	5%	7%
Accommodation & food service	738	40	320	16	4%	9%	-5%
Admin support service	338	25	261	21	4%	2%	2%
Construction	1386	405	2728	136	8%	11%	-3%
Manufacture	1225	45	220	22	2%	3%	-1%
Wholesale & retail	2101	200	1208	107	12%	10%	2%
Other service	468	35	415	12	5%	5%	0%
Size of enterprises	6256	750	5192	314	12%	5%	7%
1-4 workers	3440	211	3501	120	23%	22%	1%
5 - 9 workers	1814	142	579	78	8%	13%	-5%
10 -14 workers	384	130	434	41	1%	7%	-6%
15 – 24 workers	310	108	340	25	5%	0%	5%
25 – 49 workers	188	107	231	31	1%	0%	1%
30 - 49 workers	18	52	75	19	0%	0%	0%
50+ workers	102	0	102	0	0%	0%	0%

## Intended number of hiring

### Expected change in number of employees in the business sector in the next 12 months by location, branch of economic activity and size of enterprise

	Total	Expected increase	Expected decrease	Expected change	%
Timor-Leste	53120	2912	1120	1792	3.3%
Dili	36652	1900	776	1124	3%
Other municipalities	16468	1012	344	668	4%
Branch of economic activities	53210	2912	1120	1792	3.3%
Accommodation & food service	1930	177	80	74	5%
Admin support service	1540	476	95	381	24%
Konstrusaun	10009	112	660	-548	-5.4%
Manufacture	14035	480	90	390	2.7%
Wholesale & retail service	25045	1667	195	1472	5.8%
Other services	570	0	0	0	0%
Size of enterprises	53120	2912	1120	1792	3.3%
1-4 workers	5910	291	121	170	2.8%
5 - 9 workers	5621	261	164	97	1.7%
10 -14 workers	5219	202	290	-88	-1.6%
15 – 24 workers	4822	304	150	104	2.1%
25 – 49 workers	4527	80	115	-35	0%
30 - 49 workers	5230	244	80	164	3.1%
50+ workers	21791	1530	0	0	0%

The level of business confidence overall in Timor-Leste remains similar to 2019, 2017 & 2016, with only a minor drop in expected change in number of employees (growth in employment dropping from to -2.6 in 2019, and in 2022 expected to increase back to 3.3% in the next 12 months).

ESS 2022 data shows more growth outside Dili is higher than in Dili. Total Timor-Leste employees are expected to increase in total of 2,912. Compared to the ESS 2019, the difference is 1,792 employees (2,912 expected to increase minus 1120 expected to decrease). There is huge difference between ESS 2022 and 2019, in 2019 the expected to increase was only 1,006 in total and expected to decrease was in total of 2,416.

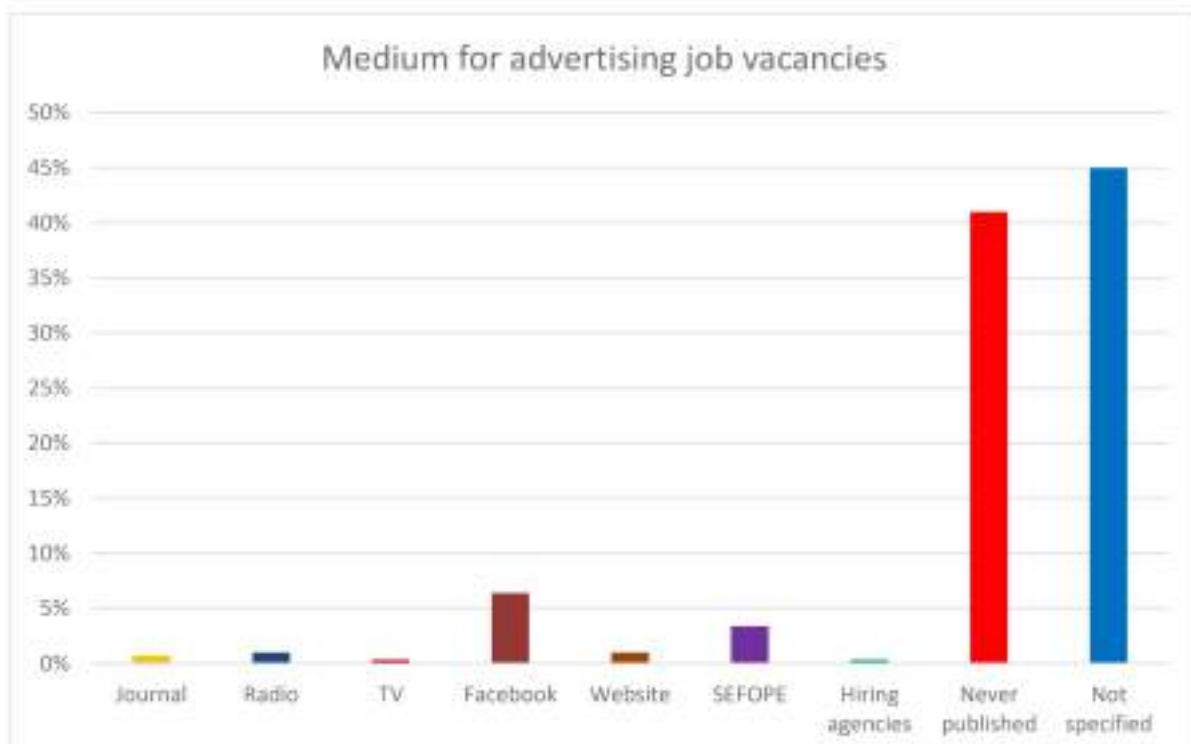
Based on the branch of economic activities, mostly the enterprises are expected to increase their employees, however there're few which is employers expected to decrease the number of employees, for example in the constructions sector it's expected to decrease employees in total of 548 (112 – 660).

The employment growth coming from SMEs of 1-14 workers, it's expected to increase number of employees and only expected to decrease about in total of 170 (291-121).

The small number of businesses with over 50 employees, and a few investment projects, the fall in new employment by micro-enterprises suggests that the economy is becoming more developed.

### Medium for advertising job vacancies

The graph below shows the way in which enterprises are advertising their vacancies. it is important to clarify that, *never published* refers to enterprises that did not published job vacancies but advertised and recruited through “word-of-mouth”, among friends and other relationship networks. The graph shows that, 41% of vacancies are never advertised.





## Job flows

Jobs creation and jobs destruction		
	ESS 2022	ESS 2019
<b>Jobs creation</b>	5088 <sup>2</sup>	2591
Opening enterprises	528	538
Opening enterprises with jobs	1102	1352
Recruiting enterprises in the preceding years	761	478
Recruiting enterprises in the preceding years with jobs	1570	1239
<b>Jobs destruction</b>		
Contracting enterprises	1530	1429
Contracting enterprises with jobs separation (leavers)	2928 <sup>3</sup>	3845
Net employment growth	2160	-1254
Growth rate of employment	-1%	-2.3%

The ESS contains two distinct measures of employment growth. The first (question B.1) is extrapolated from the responses about total number hired. This indicates that there has been growth of 543 jobs (53,120 in 2022 less 63,663 in 2019).

In the same period, enterprises surveyed said they let 2,928 employees leave, resulting in a net increase in employment of 2,160 (5,088 – 2,928).

A second question (C.7) asks how many new staff have been employed by existing businesses (3,986) and how many staff have been employed by new businesses (1,102) giving a total of new jobs of 5,088, referred to the table below:

Employment growth from new enterprises	1102	22%
Employment growth from enterprise growth	3986	78%
Gross employment growth (new jobs)	5088	100%

ESS 2022 data shows that 22% of employment growth comes from new enterprise growth, and 78% comes from existing enterprises. If compared to ESS 2019, 52% of employment growth came from new enterprise or enterprise growth and 48% came from existing enterprises.

<sup>2</sup> Top 5 occupations hired

<sup>3</sup> Top 5 occupations who left the jobs

## 6. CONCLUSIONS AND RECOMMENDATIONS

### Conclusions

There are some signs the enterprise environment, and thus the labour market, are maturing: size of businesses is increasing, wages have increased, 78 percent of employment growth comes from existing enterprises growing. The data shows that enterprise growth in Dili increased to 56% and enterprise growth in municipalities slightly decreased to 44 percent. The survey data also demonstrates that female roles in managers positions also increased, but the female still dominates the occupations of clerical support service and shop sale assistant. Female employees decreased from 34 percent to 32 percent in 2022.

However, a high level of volatility persists in the market, suggesting a boom-and-bust business cycle. Many enterprises operate more like contractors rather than as established business, hiring staff when they win a contract and letting them go on its completion. This is particularly evident in construction related occupation, demonstrating high rates of new hiring as well as separations. These factors increase overheads for employers and make it difficult for employees to develop their skills through on-the-job experience. While support to creating new businesses is important, measures to support and develop existing enterprises should be not be overlooked.

The survey results show that the skill gaps increased in 2022 if compared to ESS 2019 with the small number of gaps reported. The skill gaps reported in 2022 are occupations related to the wholesale and retail and constructions sectors.

In ESS 2022, the data shows that employment growth expected to show in more positive results if compared to ESS 2019. For example, there's 12% of enterprises that is expected to increase its employment and only 5% is expected to reduce its workers, which have a big difference if compared to ESS 2019 where there was 11% expected to reduce its employment and only 4% expected to increase its employment.

There has been a small increase in foreign employment by 3%, particularly among managers and professionals, and Timorese workers should be supported to improve these skills. Accounting and engineering is among the hardest to fill vacancy, and this should be addressed as a priority given the critical nature of this skill for the survival, growth and profitability of any enterprise.

**Top skills in demand and hard to fill vacancies are:**

- Civil engineering labourers
- Accountants
- Professional for advertising and marketing
- Cook persons
- Shop sales assistants
- Cashiers
- Carpenter
- Construction labourers
- Electrical repairs and instalations
- Receptionist
- Bakery

These are principally occupations with vocational training needs. Centre of Labour Market Information (LMI) will analyze the demand for skills and working with Training Providers to help them adjust their course offering to ensure that the TVET is responding to the market demand. The education system in Timor-Leste, at all levels (Secondary, Vocational, Technical Schools and University) must be better focused on the demand for skills in the marketplace, and on providing skills development that meets these needs.

## Conducting the Enterprise and skills Survey

An annual ESS provides important time-series data on developments in the labour market. As LMI develops mechanisms to link the supply of skills to the demand for skills, the evidence gathered from the ESS become more important. Conducting a nationwide ESS is a significant undertaking, and the following recommendations can help streamline the process, reduce the costs, as well as improving the quality of the data.

## Recommendations

1. Get better data to establish enterprise population (INSS, IP and SERVE, IP). This data needs to be in an accessible format (such as Excel), be timely, complete, and ideally with correct ISIC (International Standard Industrial Classification) coding.
2. Train staff in Employment Centre in Municipalities to conduct surveys using tables, to reduce costs and travel, and simplify logistics.
3. Consider creating a panel of enterprises to survey, due to the difficulty in locating and contacting some of the enterprises in the sample.
4. SEFOPE is highly suggested to purchase newly survey software called Census and Survey Processing system (CSPPro) for the Centre of Labour Market Information to conduct labour market surveys in more efficient.
5. Use geo-location feature on tables to identify location of enterprises to facilitate follow on surveys.
6. Document and standardize process of conducting survey to improve comparability between years. By following this each year, the methodology and questionnaire section will not be needed in the updates.
7. Follow model of providing updates to ESS every year, with full ESS (with donor support) each year.
8. Relevant Ministries and SERVE, IP is suggested to raise the issues in the council of ministers meeting about the newly registered companies did not create any employment opportunities.
9. SEFOPE is required to develop its Labour Market Information System (LMIS) called SIMU-web in order to connect both employers and job seekers via digitalization or online in more efficient.
10. The researchers discovered that lists of enterprises provided by INSS, IP to Centre of LMI, most enterprises have not paid or collected the social security payment from their employees.

## ANNEX A: SURVEY METHODOLOGY AND DATA

This section describes the sample design and the questionnaire design and includes descriptions of the field operations and data processing. It also provides information on the data quality including non-response, and non-coverage rates and the sampling errors of the estimates<sup>4</sup>.

### Sample design

In comparison with the ESS 2019, 2017 AND 2016 the sampling frames for 2022 were combined by sectors rather than branch of economic activity. This is due to the limited information on categorization of the data by branch of economic activities.

The sampling frame was the list of enterprises from Two different sources (Institutions) INSS, IP and SERVE, IP contained the name and address of 3592 enterprises, including telephone number, type of enterprise, and sector. SEOPE changed its strategy to get populations data from INSS, IP because experienced in the previous ESS, the list of enterprises provided most were closed and changed their businesses address.

The list of enterprises from the two different sampling frames were combined and sorted by sector and location are shown in the following tables.

### The sampling frame by sectors

Sectors		Sampling frames (INSS, IP & SERVE, IP)	
		Number	%
	Total	3592	100.0%
1	Constructions	554	22%
2	Accommodations and food service	187	8%
3	Admin support service	59	4%
4	Manufacture service	162	8%
5	Wholesale & retail service	1244	28%
6	Other Service	1390	30%

The frame concentrates on three sectors making up more than (80%) of the total: construction (22%); wholesale, retail trade and other services (30 %).

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<sup>4</sup> Note: Refer to ESS 2019 for main concept and definitions

Followed by Accommodation and food services (8 %) and Admin support is about (4%) and the last two sectors are manufacturing other industrial activities is (8%).

### The two sample frames by municipalities

Location		Sample frames (INSS, IP & SERVE, IP)	
		Number	%
	<b>Total</b>	3592	100 %
	Dili	2486	69%
	Other municipalities	1106	31%
1	Viqueque	66	2%
2	Baucau	65	2%
3	Bohonaro	95	3%
4	Ermera	64	2%
5	Ainaro	43	1%
6	Covalima	49	1%
7	Liquica	86	3%
8	Lautem	53	1%
9	Manufahi	61	2%
10	Oecusse	21	1%
11	Manatutu	51	1%
12	Aileu	21	1%
13	Others	431	11%

The sampling frames were stratified into two geographical areas (Dili and Other municipalities) and six broad sectors of activity: Construction (ISIC Rev 4 two-digit codes 41- 43), Accommodation and food services (ISIC Rev 4 two-digit codes 55- 56), Manufacturing and other industrial activities (ISIC Rev 4 two-digit codes 06-38); Wholesale and retail services excluding automotive (ISIC Rev 4 two-digit codes 46-47) and Other services (ISIC Rev 4 two-digit codes 49-53 and 58-99).

### Sample allocation among strata

Setór		Fatin	INSS,IP & SERVE, IP	
			N	n
	<b>Totál</b>		<b>3592</b>	<b>550</b>
1	Construction	Dili	266	47
2	construction	Other	288	76
3	Accomodation and food service	Dili	177	38
4	Accomodation and food service	Other	10	5
5	Admin support service	Dili	59	22
6	Admin support service	Other	0	0
7	Manufacture service	Dili	147	35
8	Manufacture service	Other	15	7
9	Wholesale & retail service	Dili	1035	92
10	Wholesale & retail service	Other	209	63
11	Other service	Dili	802	85
12	Other service	Other	578	80

The sample size was determined based on previous surveys and the present available resources. The sample size of 550 was drawn from the total of 3592 list of enterprise, a combination list of enterprises from INNS, IP and SERVE, LP. The sample was allocated among the sector in each 13 municipalities by square-root<sup>5</sup> allocation. The distributions of the sample enterprises are shown below by branch of economic activity and location.

### Sample enterprise by sectors

Sectors		INNS, IP & SERVE, IP	
		Number	%
	<b>Total</b>	<b>550</b>	<b>100.0%</b>
1	Constructions	123	22%
2	Accommodations and food service	43	8%
3	Admin support service	22	4%
4	Manufacture service	42	8%
5	Wholesale & retail service	155	28%
6	Other Service	165	30%

### Sample enterprise by municipalities

Municipalities		Sample frame	
		Number	%
	<b>Total</b>	<b>550</b>	<b>100%</b>
1	Dili	316	57%
2	Ainaro	13	2%
3	Ermera	23	5%
4	Manufahi	21	4%
5	Baucau	30	6%
6	Viqueque	24	4%
7	Oecusse	6	1%
8	Lautem	12	2%
9	Liquica	20	4%
10	Covalima	29	5%
11	Bononaro	13	2%
12	Aileu	14	3%
13	Manatutu	29	5%

<sup>5</sup> Note: Refer to ESS 2019 to understand sample allocation



The comparison of frame and sample tables indicates that both samples preserve the proportion of enterprises in the frame in terms of geographical area. The sample contains 57% of enterprises in Dili, lower than the proportion in the frame 69%. In contrary, sample contains 43% of enterprises in other municipalities while sampling frame contains only 31% of enterprises.

In terms of sectors, it can be observed however, that the sample composition over-samples accommodation and food services (8% in the sample against 8% in the frame) as well as those in manufacture service (8% in the sample against 8% in the frame), but under-samples the enterprises in wholesale & retail service (28% in the sample against 28% in the frame).

## Questionnaire design

The questionnaire for ESS 2022 is similar to the ESS 2019<sup>6</sup>, with some slight differences. The ESS 2022 now has 36<sup>6</sup> questions (34 previously) organized in 5 sections in addition to a final page. Some of the main changes from the previous questionnaires are:

- Removal of the questions in relation to registration with SERVE, IP, IADE, and Tax
- Removal of questions regarding temporary workers
- Additional questions regarding the date and month of enterprises operation activities
- Additional questions regarding new employees and replacement

## Fields operation

The field operations were conducted from April to August 2022. In total 13 interviewers were involved visiting the sample enterprises, often at multiple occasions, to obtain responses. The respondents were in most cases either the owner of the enterprise or the director or manager. In virtually all cases, the interviewer administered the questionnaire, recording the responses provided by the respondent. In a few cases, the interviews were done via mobile phone, when respondents were not able to meet with the interviewer.

The following table shows the interview results. In the case of 325 enterprises, the questionnaire was either fully or partially completed. The table also shows that 27 enterprises could not be contacted and 18 refused to participate in the survey. Some 111 enterprises were no longer active, an additional 14 could not be located and the address, of a further 55 enterprises were active but not be interviewed for other reasons or unspecified reasons.

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<sup>6</sup> Note: Refer to ESS 2019 for questionnaire descriptions.

## Interview results of sample enterprises

Interview result		INSS, IP & SERVE, IP
	<b>Totál</b>	<b>550</b>
1	Questionnaire fully or partially completed	325
2	No contacts	27
3	Refusal	18
4	Not active	111
5	Companies not found	14
6	Active but no activities	55

The enterprises in the first category (questionnaire fully or partially completed) are classified as responding enterprises. Thus, there are 325 (=316+ 9) responding enterprises. Enterprises considered non-responding are no contact, refusal and others, specify. There are 225 (= 111 + 27 + 55 + 14 + 18) non-responding enterprises.

The non- response rate of the survey may be thus calculated as follows:

$$\text{Non-response rate} = 325/550 = 59\%$$

Enterprises in the remaining categories (not active, company not found, and address not found, etc.) are considered as non-coverage. The non-coverage rate may be calculated as;

$$\text{Non-coverage rate} = 225/550 = 41\%$$

The non-response rate of the ESS 2022 is in line with the rates found in establishment surveys in other countries<sup>7</sup>.

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<sup>7</sup>[http://laborsta.ilo.org/applv8/data/SSM2\\_NEW/E/3.%20Summary%20findings.pdf](http://laborsta.ilo.org/applv8/data/SSM2_NEW/E/3.%20Summary%20findings.pdf)

## Data processing

The 2022 data collection was done using tablets to collect responses, instead of paper-based questionnaires. Questions were loaded on 13 tablets using a humanitarian application called “KoboToolBox”. Responses were directly entered to the tablets in the field, which then synchronized into the Kobo account at SEFOPE, when internet access was available. Once stored in the Kobo account, the survey data were processed in Excel and Stata after all survey results became available in August 2022<sup>8</sup>.

## Sampling and measurement error

### Sampling error

Sampling errors arise because the survey does not cover all elements of the population, but only a selected portion. The sampling error of an estimate is based on the difference between the estimate and the value that would have been obtained on the basis of a complete count of the population under otherwise identical conditions. In principle, sampling errors may be decomposed into two components: (i) sampling bias; and (ii) sampling variance. Sampling bias reflects the systematic error that may occur due to the failures of the sample design, for example, certain elements of the population receiving zero probability of selection. The sampling variance, on the other hand, reflects the uncertainty associated to a sample estimate due to the sample used for its calculation, among all possible other samples that could have been selected from the frame with the same sampling design.

Standard errors and confidence intervals of main estimates: ESS 2022

	Estimation	Standard error	Relative standard error	Confidence interval (95%)	
				Lower	Upper
Number of employees	53120	2160	4%	46128	60112
Number of hiring in 2022	5088	522	10.2%	5731	7517
Number of females employees	16880	923	5.4%	15921	17839
Expected employees reduction	1120	37	3.3%	1003	1259
Hard to fill vacancies	736	34	4.6%	626	846
Number of separation in 2022	2928	231	7.8%	2138	3718

One use of the standard error is to assess the level of precision of survey estimates. A low relative standard error indicates a high precision of the estimate. In general, the lower the relative standard error of an estimate, the higher is the precision of the estimate. The relative standard error of an estimate is the ratio of the standard error to the size of the estimate. For example, it can be deduced from the above table that the number of employees is more precisely estimated than the number of numbers of hiring in 2022. The relative standard error of the estimate of the number of employees is 4% while the relative standard error of the estimate of the number of hiring in 2022 is 10.2%. Similarly, the number of separation female employees in 2022 is more precisely estimated than the number of separations in 2022 with relative standard error of 7.8%. These results reflect the fact that the estimates based on larger effective sample size are generally (but not always) more precise than estimates based on smaller effective sample size.

Another use of the standard error is for the calculation of confidence intervals. Under certain broad assumptions, it can be stated that the true value of the variable of interest lies in between the survey estimate and a multiple of the standard error, with certain degree of probability, set here at 95%. For example, from the first line of the table, it can be stated that the true value of the total number of employees is within the interval with 95% confidence,  $46,128 \leq$  estimated number of employees  $\leq 60,112$ .

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<sup>8</sup> Note: Refer to ESS 2019 for more data processing and sampling weight

## Measurement error

In addition to sampling errors, survey data are subject to different types of measurement errors (coverage errors, non-response errors, response errors, and other errors such as editing, coding and processing errors).<sup>9</sup> In many situations, the measurement errors may have considerable impact on the quality of the survey results. Non-response and non-coverage errors were discussed earlier regarding the field operations. Here we will examine the coherence of the ESS 2022 results with data from different sources, such as Business Activity Survey (BAS) 2021<sup>10</sup>.

The following table compares these results by location and branch of economic activity with the corresponding data obtained from the ESS 2022. The ESS 2022 data refer to the situation in 2019. BAS provides more precise than estimates in ESS 2022 as evidenced from their respective relative standard errors (1.4% for of the estimate of total employment in BAS against 4% and 4.1% in ESS 2019 and 4.6% in ESS 2017, respectively). The estimates of total employment from the three sources nevertheless closely agree: 62,200 in December 2014 from BAS, 65,853 in January 2016 from ESS and 68,256 from ESS 2017 and 52,200 from BAS 2021 and ESS 2022 is 53,120.

The following table is the comparison of the level of employment by location and branch of economic activity - ESS 2022 versus BAS 2021 and BAS 2017.

	ESS 2022	BAS 2021 <sup>12</sup>	BAS 2017 <sup>13</sup>
Total employment	53,120	52,200	57,900
- Dili	36,652	46,000	45,900
- Municipalities	16,468	6,200	12,000
Manufacture	14,035	14,600	4,500
Constructions	10,009	8,300	17,100
Wholesale & retail service	25,045	15,300	15,400
Accommodation and food service	1,930	-	4,700
Admin support service	1,540	-	-
Other service	570	-	13,100

<sup>9</sup> Hussmanns, Ralf, Farhad Mehran, and Vijay Verma, ILO Manual on Concepts and Methods: Surveys of Economically Active Population, Employment, Unemployment and Underemployment (Part II)

<sup>10</sup> Note: Refer to BAS 2021 for the descriptions.

Alojamentu no atividade servisu hahán hatudu tendénsia sa'e maibé mós kuaze hanesan ho BAS 2016 (5,000 husi BAS 2016, 4,700 husi BAS 2017, no 1,930 husi PEA 2022). Komérsiu grossu no retallu, sae significante ho total 25,045.

The estimate of employment in Timor-Leste almost fell into the same estimation result between BAS 2021 and ESS 2022, which is 50,000, from BAS 2021 was 52,200 and ESS 2022 is 53,120. It is, however, the ESS 2022 estimated employment bigger than BAS 2021, it's important to note that the confidence interval 95% with the minimum or lower value of ESS 2022 is 46,128 and upper or maximum value is 60,112.

In terms of branch of economic activity, there is an increasing trend for the estimates of employment in accommodation and food service (5000 from BAS 2016, 4700 from BAS 2017 and 1,930 from ESS 2022). Wholesale and retail trade, increased significantly to total of 25,045.

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<sup>12</sup> Business Activity Survey 2021 (Refer to period of 2021)

<sup>13</sup> Business Activity Survey 2017 (Refer to period of 2017)

## ANNEX B: STATISTICAL TABLES

### 1. Number of enterprises and employed persons by location and sector

Branch of economic activities	Timor-Leste		Dili		Municipalities	
	Enterprises	Employed persons	Enterprises	Employed persons	Enterprises	Employed persons
Total	6256	53120	3503	36652	2753	16468
Accommodation and food service	738	1930	314	1530	424	400
Constructions	1386	10,000	1025	8700	361	1300
Manufacture and industries service	1225	14035	670	1220	555	12815
Wholesale & retail	2101	25045	1100	23307	1001	1738
Admin support service	338	1540	279	1350	59	190
Others	468	25045	115	545	353	24500

### 2. Composition of enterprises: ESS 2022 versus ESS 2019

Location & Sector	ESS 2022	ESS 2019
Total enterprise	6256	100%
Dili	3503	56%
Municipalities	2753	44%
Accommodation and food service	738	12%
Constructions	1386	22%
Manufacture and industries service	1225	20%
Wholesale & retail	2101	34%
Admin support service	338	5%
Others	468	7%

### 3. Newly established enterprise: ESS 2022 versus ESS 2019

	2022	2019
Total enterprises newly established	528	538
Total employees	1102	1352

#### 4. Number of enterprises and employed person by location and size of enterprise

Size of enterprise	Timor-Leste		Dili		Municipalities	
	Enterprise	Employed persons	Enterprise	Employed persons	Enterprise	Employed persons
Total	6256	53120	3503	36652	2753	16468
1 - 4	3440	5910	1369	5200	2071	710
5 - 9	1814	5621	1440	5004	374	617
10 -14	384	5219	195	4980	189	239
15 - 24	310	4822	256	4521	54	301
25 - 29	188	4527	150	3210	38	1317
30 - 49	18	5230	12	4237	6	993
50+	102	21791	81	9500	21	12291

#### 5. Number of enterprises and type of employed person by type of ownership

Type of ownership	ESS 2022	ESS 2019
Solely Timorese	58%	74%
Solely foreign	29%	22%
Not specified	10%	2%
Joint ownership	3%	2%

#### 6. Composition of enterprises by type of ownership ESS 2022 versus ESS 2019

Type of ownership	Timor-Leste		Dili		Municipiu	
	Enterprise	Employed persons	Enterprise	Employed persons	Enterprise	Employed persons
Total	6256	53120	3503	36652	2753	16468
Solely Timorese	3628	44496	2031	30702	1597	13794
Solely foreign	1815	7031	1015	4851	800	2180
Not specified	625	0	350	0	275	0
Joint ownership	188	1593	107	129	81	1464



## 7. Number of employed persons by major occupational group

Occupations (Major group)	Total	Local		foreign	
		Female	Male	Female	Male
Total	53120	16880	28992	1760	5488
Managers	4696	1480	2256	1040	2512
Professionals	3496	1072	1600	176	896
Associate professionals	3432	848	1584	0	480
Office support workers	4368	3168	1744	144	80
Service & Sale workers	13360	6164	5872	176	160
Skilled agricultural, forestry, and fishery workers	5552	784	768	0	16
Craft and related trade workers	3742	1008	2976	192	1200
Plant and machine operators and installation	5206	228	5040	0	144
Elementary occupations	9248	2128	7152	32	2512

## 8. Occupational composition of employed persons by sex ESS 2022 vs ESS 2019

Occupations (Major group)	Total ESS 2019	Total ESS 2022	Male ESS 2019	Male ESS 2022	Female ESS 2019	Female ESS 2022
Total	100.0%	100.0 %	100.0%	100.0%	100.0%	100.0%
Managers	9.7%	8.0%	11.3%	7.7%	6.5%	8.7%
Professionals	14.0%	6.5%	17.2%	5.5%	7.8%	6.3%
Associate professionals	5.2%	6.4%	5.3%	5.4%	5.0%	5.0%
Office support workers	11.9%	8.2%	9.5%	6.0%	16.6%	18.7%
Service & Sale workers	26.8%	25.1%	16.6%	20.3%	46.6%	36.5%
Skilled agricultural, forestry, and fishery workers	0.2%	10.4%	0.3%	2.6%	0.0%	4.6%
Craft and related trade workers	4.3%	7.0%	5.7%	10.2%	1.8%	1.3%
Plant and machine operators and installation	7.2%	9.8%	10.9%	17.3%	0.0%	6.3%
Elementary occupations	20.7%	17.4%	23.2%	24.6%	15.7%	12.6%

## 9. Occupational composition of employed persons by nationality ESS 2022 vs ESS 2019

Occupations(major group)	Total ESS 2019	Total ESS 2022	Timorese ESS 2019	Timorese ESS 2022	Foreign ESS 2019	Foreign ESS 2022
Total	100%	100%	100.0 %	100.0%	100%	100%
Managers	9.7%	8.8%	7.3%	10.5%	29.6%	24.2%
Professionals	14.0%	6.5%	10.9%	7.8%	40.9%	14.3%
Associate professionals	5.2%	6.4%	4.8%	7.7%	8.0%	2.4%
Office support workers	11.9%	8.2%	13.3%	9.8%	0.6%	0%
Service & Sale workers	26.8%	25.1%	28.6%	30.0%	11.3%	1.9%
Skilled agricultural, forestry, and fishery workers	0.2%	10.4%	0.2%	12.4%	0.0%	2.4%
Craft and related trade workers	4.3%	7.0%	4.1%	8.4%	6.5%	2.6%
Plant and machine operators and installation	7.2%	9.8%	7.9%	11.6%	1.6%	0%
Elementary occupations	20.7%	17.4%	22.9%	20.7%	1.5%	0.4%

## 10. Average wages (USD per month) by major occupational group, ESS 2022

Okupasian (Grupus prinsipal)	ESS 2022
Managers	593
Professionals	434
Associate professionals	234
Office support workers	188
Service & Sale workers	138
Skilled agricultural, forestry, and fishery workers	138
Craft and related trade workers	198
Plant and machine operators and installation	179
Elementary occupations	133

## 11. Average wages (USD per month) ESS 2022 versus ESS 2019

Occupations (Major group)	ESS 2022	ESS 2019
Managers	593	504
Professionals	434	418
Associate professionals	234	234
Office support workers	188	182
Service & Sale workers	138	146
Skilled agricultural, forestry, and fishery workers	138	0
Craft and related trade workers	198	224
Plant and machine operators and installation	179	209
Elementary occupations	133	128

## 12. Top twenty occupations with highest number of hiring in 2022

ISCO	Occupations	Number of enterprises	Number of employees
	Total	2500	2928
9313	Construction labourers	319	1248
5223	Shop sale assistant	455	245
7119	Welding	78	99
8342	Operator (construction)	159	89
5120	Cook	162	54
5131	Server	133	90
2151	Electrician	159	120
7231	Mechanical	113	101
7115	Carpenter	134	89
7111	House builder	21	47
9214	Gardener and horticultural workers	362	224
1420	Managers	133	92
4322	Drivers	47	82
5414	Security	64	118
7531	Tailor	121	102
7512	Bakery	16	80
5230	Cashiers	24	48

### 13. Top thirteen occupations with expected new hiring in the next 12 months

ISCO	Occupation	Expected number of new hiring
	Total	832
2142	Civil engineers	15
3123	Construction supervisors	20
3511	Information and communications technology operations technicians	32
4110	General office clerks	32
5223	Shop sales assistants	122
7512	Bakers, pastry-cooks and confectionery makers	14
8313	Car, van and motorcycle drivers	33
9312	Civil engineering labourers	79
9313	Building construction labourers	16
9329	Manufacturing labourers not elsewhere classified	436

### 14. Skill limitations of employees reported by enterprises: ESS 2022

Skills	ESS 2022		ESS 2019	
	Count	Percentage	Count	Percentage
Total	345	100.0%	1134	100.0%
Literacy	12	3.4%	246	21.7%
Numeracy	20	5.7%	202	17.8%
Access to IT	5	1.4%	167	14.7%
Application development (IT)	3	0.8%	94	8.3%
Oral communication	63	18.2%	60	5.3%
Written communication	14	4.0%	60	5.3%
Public speaking	15	4.3%	31	2.7%
Customer service attendance	32	9.2%	8	0.7%
Team work	68	19.7%	4	0.4%
Taking initiatives	21	6.0%	-	-
Lack of understanding other foreign languages	18	5.2%	-	-
Organized	14	4.0%	-	-
Responsibility and leadership	17	4.9%	-	-
Manual skills	30	8.6%	-	-
Work in specific area of accommodation and food service	11	3.1%	-	-
Clerk and administration	0	0%	-	-
Work in construction and industries	2	0.5%	-	-

## 15. Top twenty occupations with hard to fill vacancies

Occupations	Number of enterprise	Number of employees
Total	243	736
Accountants	46	148
Civil engineers	15	192
Professional for marketing and advertising	13	64
Cashiers	31	32
Cook persons	31	27
Carpenter	31	39
Architect	26	34
Electricity repairs and installation	26	26
House builder	4	16
Tailor	12	85
Construction workers	4	31
Supervisor	4	42

## 16. Top twenty occupations with training needs

Occupations	Number of employees
Waitress	32
Office and hotel cleaners	48
Constructions workers	45
Cook persons	18
Construction supervisor	23
Hotel receptionist	21
Electrical repairs and installation	24
Print finishing and binding workers	27
Carpenter	32
Cashier	48
House builders	64
Bakery	8
Civil engineer	17
Sale assistant workers	128
Total	749

## 17. Enterprises financing training courses by area of training

No.	Training areas	Number of enterprises	%
	Total	804	100.0%
5414	Civil engineering workers	123	15.3%
9312	Cook persons	85	10.5%
5120	Cashiers	45	5.5%
5221	Used computers to attend the buyers	12	1.4%
9333	Massause	11	1.3%
7115	Construction	113	14%
9313	Director	35	4.3%
1420	Mechanical	16	1.9%
3115	Accounting	12	1.5%
7113	Mental health	10	1.2%
5223	Security	35	4.3%
7115	Graphs design, editing and printing	68	8.4%
5131	Servant	66	8.2%
7533	Sewing use machine	22	2.7%
1420	Financial management	110	13.6%
9629	Not specified	41	5.0%



## Section B – Employee Profile

B.1 Could you please indicate the number of wage and salary employees by occupation.

Occupation (by major group)	Locals		Foreigners	
	Male	Female	Male	Female
1 Managers				
2 Professionals				
3 Associate professionals				
4 Service and sale workers				
5 Clerical support workers				
6 Skilled agricultural, forestry and fishery workers				
7 Craft and related trades workers				
8 Plant and machine operators and assemblers				
9 Elementary occupations				
Total				

B.2 Please list the occupational title of the main categories of workers in your enterprise and specify the current number of workers in each of the occupations (up to 5 occupations)

No	Occupational title	ISC code	Current number of workers		
			Skilled	Semiskilled	Unskilled
1					
2					
3					
4					
5					



**B.3 Could you please indicate the average monthly wage/salary you pay for the following positions?**

Occupation categories	Average USD per month
1. Managers (This category includes chief executives; general and corporate managers; managing director; administrative, finance, production, service and sale manager; and regional and branch manager who plan, direct and coordinate the policies and activities of business and other organization)	
2. Professionals (Professionals increase the existing of knowledge, apply scientific or artistic concepts and theories, or teach in a systematic manner. Most occupations in this category- such as engineers, lawyers, economists, computing professionals, teachers and health professionals- require skills at graduate and postgraduate education)	
3. Technicians and associate professionals (This category performs mostly technical and related tasks connect with research and application of scientific, artistic, or operational methods. These occupations, which typically require skills at upper secondary or tertiary education, include industrial robot controllers, photographers and medical assistants)	
4. Clerical support workers (This category performs clerical duties with associated with money-handling operations, travel arrangements, requests for information and arrangement. Most of these jobs, such as secretaries, cashiers, or transport clerks, require skills at least lower secondary educations)	
5. Service and sale workers (This category provides personal services related to travel, housekeeping, catering, personal care, or protection, or they demonstrate and sell goods. Most occupations require skills at least lower secondary education)	
6. Skilled agricultural, forestry, and fishery workers (This group includes occupations that require skills at least secondary education or equivalent critical skills and knowledge such as crop growers, gardeners and dairy and livestock producers)	
7. Craft and related trades workers (This group applies their skills in the fields of mining and construction, making or repairing machinery, printing, processed food, textiles, or articles including handicrafts goods which involve the performance of complex physical duties that normally involve initiative, manual dexterity and other practical skills. Most of these occupations, such as builders, bricklayers, plumbers, or electronic mechanics require a substantial period of training)	
8. Plant and machine operators and assemblers (This group operates and monitors industrial and agricultural machinery and equipment, drives and operates motor vehicles and mobile machinery, or assembles products. Most occupations have not a particular standard of education but will usually have formal experience related training)	
9. Elementary occupations (This group consists of simple and routine tasks that mainly require the use of hand tools plus physical effort. Most occupations in this group, such as cleaners, building caretakers, doorkeepers or laborers' do not require formal education qualification).	
TOTAL	

## Section C – Recruitment / Recruitment Difficulties

C.1 In the last two years, has your company filled any permanent or temporary positions?

Yes	1	Go to C.2
No	2	Go to C.6

C.2 Could you please, indicate the occupations (up to a maximum of five) in which your company has hired the most employees and the total number of employees in the following periods (in the case of people having been hired for more than one occupation, please choose the main one):

Occupation (List up to five occupations) (ISCO-08 Code)	Locals		Foreigners	
	Male	Female	Male	Female
1.				
2.				
3.				
4.				
5.				
Total				

C.3 In the last two years, including this year, have your enterprise recruited first-time job seekers? Please indicate.

	Yes	No
A First-time job seekers coming from general secondary school	1	2
B First-time job seekers coming from technical secondary education	1	2
C First-time job seekers coming from technical training centre (or TVET centre)	1	2
D First-time job seekers coming from university or other higher education	1	2

C.4 How many new employees did your enterprise hired or it was just hired for replacement?

1. New..... 2. Replacement 3. Female 4. Male.

C.5 How well were they prepared for work for each category?

	Very Well Prepared	Well Prepared	Prepared	Poorly Prepared	Very Poorly Prepared
A First-time job seekers coming from general secondary school	1	2	3	4	5
B First-time job seekers coming from technical secondary education	1	2	3	4	5
C First-time job seekers coming from technical training centre (or TVET centre)	1	2	3	4	5
D First-time job seekers coming from university or other higher education	1	2	3	4	5

C.6 In which of the following areas was the preparation of the newly hired employees lacking (*you can select all relevant fields for each group*):

	A First-time job seeker coming from general secondary school	B First-time job seekers coming from technical secondary education	C First-time job seekers coming from technical training centre (or TVET centre)	D First-time job seekers coming from university or other higher education
Lack of job specific required skills or competencies (e.g. technical or job specific skills, IT skills, problem solving skills, team working skills, communication skills)				
Limited basic education (literacy and numeracy)				
Poor attitude / personality or lack of motivation (e.g. poor work ethic, punctuality, appearance, manners)				
Lack of work /life experience or maturity (including general knowledge& common sense)				
E Other. Please specify				

C.7 In the last one year, have any employees left your company? (*Both permanent and temporary positions*)

Yes	1	Go to C.7
No	2	Go to C.8

C.8 Could you please indicate the occupations (up to a maximum of five) that have registered the highest number of exits and the total number of exits in the last one year.

Occupation List up to five occupations (ISCO-88 Code)	Number of exits
1.	
2.	
3.	
4.	
5.	
Total	

C.9 Do you currently have vacancy/ies?

Yes (Number of vacancies _____)	1	Go to C.10
No	2	Go to D.1

C.10 Could you please tell us how many vacancies will you open in the next 12 months, including this year's? (Please list up to five occupations.)

Number of vacancies this year	List of occupation (maximum 5) this year (ISCO-88)	Number of vacancies in the next 12 months	List of occupation (maximum 5) in the next 12 months
Total		Total	

C.11 Are any vacancies proving hard to fill?

Yes	1	Go to C.12
No	2	Go to D.1

C.12 Could you please indicate how many vacancies are proving hard-to-fill? (*Up to five occupations*)

Occupation	Number	Main Reason
1		
2		
3		
4		
5		

C.13 Could you please indicate the channels in which you advertise your vacancies to the public?

Channels	Choose (one or more)
Newspaper	
Radio	
TV	
Facebook	
Websites	
SEPFOPE	
Recruitment agency (eg Konekto)	
Never advertised	
Others	

## Section D – Future Hiring

D.1 Do you think the number of people working in your company will increase, decrease, or remain the same in the next 12 months?

Increase (How many? _____)	1	Go to D.2
Decrease (How many? _____)	2	Go to E.1
Remain same	3	Go to E.1

## Section E – Skills Gaps and Workforce Training

E.1 For each occupation, do you have problem related to your employees who do not perform jobs at the required level?

Yes	1	Go to E.2
No	2	Go to E.4

E.2 Could you please indicate those positions (occupations) where you find workers are not performing at the required level? (List up to 5 occupations)

No.	Occupation category	ISCO Code			
1					
2					
3					
4					
5					

E.3 Among your employees who are not able to do their jobs at the required level, which, if any, of the following skills need to be improved?

1	Literacy	Reading and comprehending instructions, guidelines, manuals or reports
2	Numeracy	Using and understanding numerical or statistical information (for example, in graphs, charts and tables)
3	IT literacy/using IT	Data entry, sending and receiving e-mails or printing. Word processing or spreadsheets
4	Advanced IT application/development	Analysing information; statistical analysis, software programming, managing computer networks
5	Oral communication	Giving instruction to others, describing problems and reporting results

6		Written communication	Writing instructions, guidelines, manuals or reports
7		Public speaking/instructing/training	Making speeches or presentations to internal or external audiences
8		Customer handling	Persuading or influencing others, whether colleagues, clients or customers
9		Team working	Working as member of group or team
10		Taking initiative	Learning new ideas, methods or techniques, adapting to new equipment or materials
11		Knowledge of foreign language	Communicating in a foreign language
12		Planning and organizing	Determining own tasks, working methods and speed of work without consulting managers or supervisors
13		Management responsibilities/taking lead	Setting objectives and planning human, financial and other resources. Instructing, training or teaching people, individually or in groups
14		Manual dexterity	Manual dexterity (for example, to mend, repair, assemble, construct or adjust things)
15		Clerical/administrative tasks (please specify)	
16		Job-specific tasks in construction industries (please specify)	
17		Job-specific tasks in automotive industries (please specify)	
18		Job-specific tasks in accommodation and food services (please specify)	
19		Other job-specific tasks (please specify)	

E.4 Last year, did your employees participate in any external or internal training courses, completely or partially financed by the company?

Yes	1	Go to E.5
No	2	Go to E.6

E.5 In which areas did your company finance the training?

1		
2		
3		
4		
5		
6		
7		
8		

9		
10		

E.6 What are the specific training needs for your employees in different occupations?

No.	Occupation category	ISCO Code				Training needs
1						
2						
3						
4						
5						

E.7 Are you aware of TVET providers for workers that you usually recruit (TVET = Technical Vocational and Education Training)?

Yes	1
No	2

E.8 Do you recruit any of your workers from specific TVET providers?

Yes	1
No	2

E.9 Could you please indicate TVET training providers, type of workers trained, and level certificate of the workers you have recruited.

	TVET training provider	Type of workers trained	Level of Certificate					
			None	Basics	1	2	3	4
1								
2								
3								
4								
5								

E.10 Please list the specific TVET training providers and the type of workers trained? For each TVET training provider, please specify your level of satisfaction of the workers who were recruited?

	E10a. TVET training provider	E10b. Type of workers trained	E10c. Level of satisfaction of workers who were recruited		
			Very satisfied	Satisfied	Not satisfied
1			1	2	3
2			1	2	3

