



30 June 2023

JOB SKILLS – Labour Force Survey ad hoc module
2022

27.9% OF THE EMPLOYED POPULATION IN PORTUGAL USES DIGITAL DEVICES IN ALL OR MOST OF THEIR WORKING TIME, BELOW THE EU AVERAGE OF 28.5%

The 2022 Labour Force Survey ad hoc module on "Job skills" focuses on the time spent using specific skills in cognitive (reading and calculation), manual (hard physical work and manual dexterity), social (training and verbal communication with people internal and external to the work organisation) tasks and work methods (autonomy, repetitiveness and standardisation of tasks).

Nearly 13.5% of the respondents indicated that they spent at least half of their working time reading technical documents and 9.2% making relatively complex calculations. In both cases, this share was higher in "Professional, scientific and technical activities" (34.1% and 27.9%, respectively).

Of the total respondents, 26.1% indicated that they spend most of their working time on hard physical work and 15.2% on tasks requiring manual dexterity. The primary (61.0%) and secondary (25.7%) sectors stood out in the time spent on these tasks, respectively.

Only 10.0% of the respondents indicated that they did not spend any time interacting on work-related matters with people from within the work organisation, with this response being more common in the primary sector (27.8%). On the other hand, 31.8% indicated that they spend at least half of their working time interacting with people external to the organisation, particularly in "Education" (53.3%) activities. Training takes up most of the working time of 13.1% of the respondents, particularly those involved in "Education" activities (49.4%).

Regarding the use of digital devices for work-related purposes, 26.8% of the respondents indicated that they spend all or most of their time working using these devices, and this answer was most common in "Information and communication" (84.3%) activities. Narrowing the analysis to the employed population aged 15 to 74, the European average was 28.5% and the national average was 27.9%, placing Portugal as the 15th country in the EU-27 with the highest use of digital devices for work-related purposes.

Almost 30% of the respondents indicated that their work always or almost always involves repetitive tasks, mainly in the primary sector (39.2%), 26.0% reported that they always or almost always perform standardised tasks, namely in the "Armed Forces occupation" (44.0%), and 39.9% indicated having large or very large autonomy to decide the order and/or content of the tasks they perform, especially "Managers" (77.1%).



1. Introduction

The analysis of job skills is a broad topic that can be approached from several perspectives: their development through education and training, the mismatch in relation to the occupation or economic activity performed, the existing supply (what skills are on the labour market), which skills are employers looking for and which use is made of specific skills. It is in this context that Statistics Portugal releases the results of the 2022 Labour Force Survey ad hoc module on "Job skills".

This module focuses on the time spent during working hours using specific job skills, such as reading technical documents, performing relatively complex calculations, hard physical work or tasks involving finger dexterity (such as surgery, drawing and repairing objects, among others), verbal communication on work-related topics with people internal or external to the enterprise or work organisation, and advising, training or teaching other people such as customers, students or colleagues. In parallel, the time spent on digital devices such as computers, tablets and smartphones was analysed (excluding phone calls that did not involve video). This analysis allows the identification of the type of tasks performed in today's jobs.

In addition, the module also focused on the work methods adopted, more specifically on the degree of autonomy to decide the order and content of the tasks performed and to what extent these tasks are repetitive, always done in the same way, or are precisely defined through strict procedures (such as legislation, action or construction plans, medical protocols and cooking recipes, among others).

The ad hoc module "Job skills" was carried out simultaneously with the Labour Force Survey throughout the year of 2022, following a sub-sampling strategy in accordance with the European regulation for this statistical operation.¹ The target population corresponds to individuals aged 16 to 74 years employed or who, not being employed, left their previous job up to 24 months ago (5,369.0 thousand people).

In this Press Release the main results are presented, with more detailed data is provided in the attached Excel tables, relating them to others obtained in the context of the Labour Force Survey.

2. Main results

2.1. Types of tasks

The tasks performed at work can be grouped into three types: cognitive, manual and social. Simultaneously, the use of digital devices is a relevant skill in the current labour market context.

2.1.1. Cognitive tasks

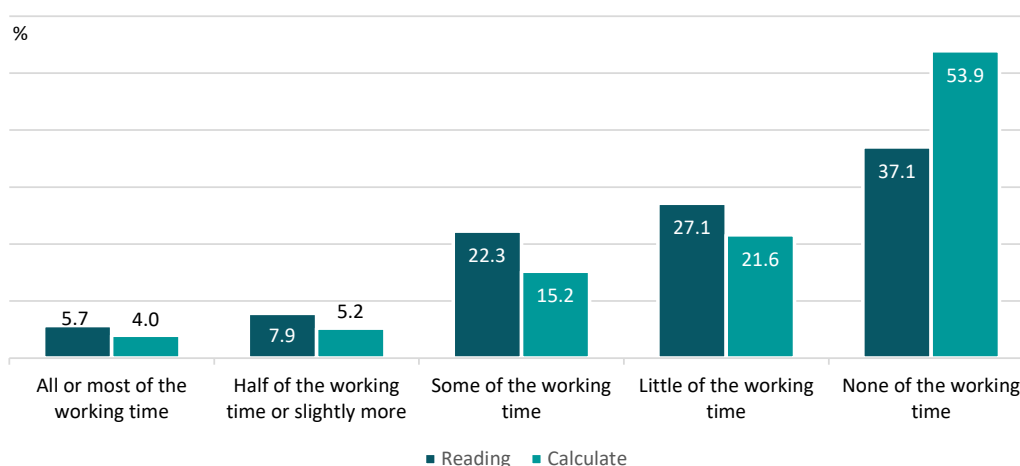
The cognitive tasks considered in the module involve reading technical working documents and performing relatively complex calculations.

¹ For more information, please see the attached Technical Note.



Around 680 thousand people (13.5%²) of the target population of the module indicated spending at least half of their working time reading manuals or technical documents that are necessary or useful for carrying out the work, even if they are relatively complex and detailed, requiring specific skills and knowledge to understand them (it includes reading, for example, claims, publications, laws, contracts, technical recommendations, technical reports, invoices).³

Figure 1. Time spent on cognitive tasks



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Looking at some characterisation variables and focusing the analysis on those who indicated spending at least half of their working time⁴ on reading skills, no significant differences are observed between men (13.1%) and women (13.9%). By age groups, it is observed that the oldest (55 to 74 years old; 10.7%) and the youngest (16 to 24 years old; 11.3%) devote the least amount of time to this task, with no marked differences in the intermediate age groups (between 14.2% in those aged 45 to 54 and 15.2% in those aged 25 to 34). Considering the level of education, it is observed an increase in the use of reading skills in the workplace: only 4.2% of those who have completed, at most, the first or second stages of basic education, 12.4% of those with upper secondary and post-secondary education and 26.3% of those with tertiary education.

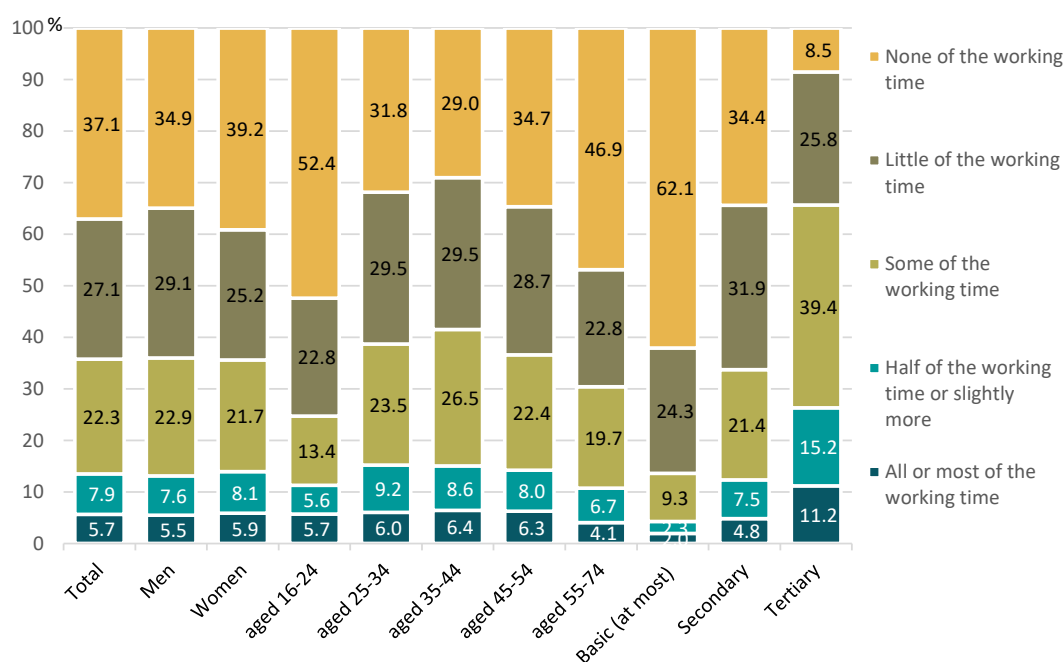
² The shares presented in this Press Release have been calculated excluding non-responses, the number of which varies according to the variable analysed (between 5.4% and 8.6% of the 5,369.0 thousand persons covered by the module for the variables "time spent on hard physical work" and "precise execution of tasks using strict procedures", respectively).

³ The target population of the module includes people who were employed in the reference week (90.9%) or who, not being employed, left their previous job 24 months ago or less (9.1%), in which case the results are based on the time they spent in their last job. For the sake of language simplification, only one verbal tense is used.

⁴ In the figures of this Press Release and in the attached Excel tables the results are presented according to the response options given to the respondents. However, for the sake of analysis, the values analysed are more aggregated unless otherwise indicated.

It is in the Services sector (15.6%) that a higher share of people devotes at least half of their working time to reading skills, with emphasis on "Professional, scientific and technical activities" (34.1%), "Financial and insurance activities" (28.0%) and "Public administration and defence; compulsory social security" (27.0%). The occupations where the most time is spent on reading manuals or technical working documents are "Professionals" (28.9%), followed by "Technicians and associate professionals" (22.6%) and "Managers" (21.0%).

Figure 2. Time spent reading manuals or technical work documents



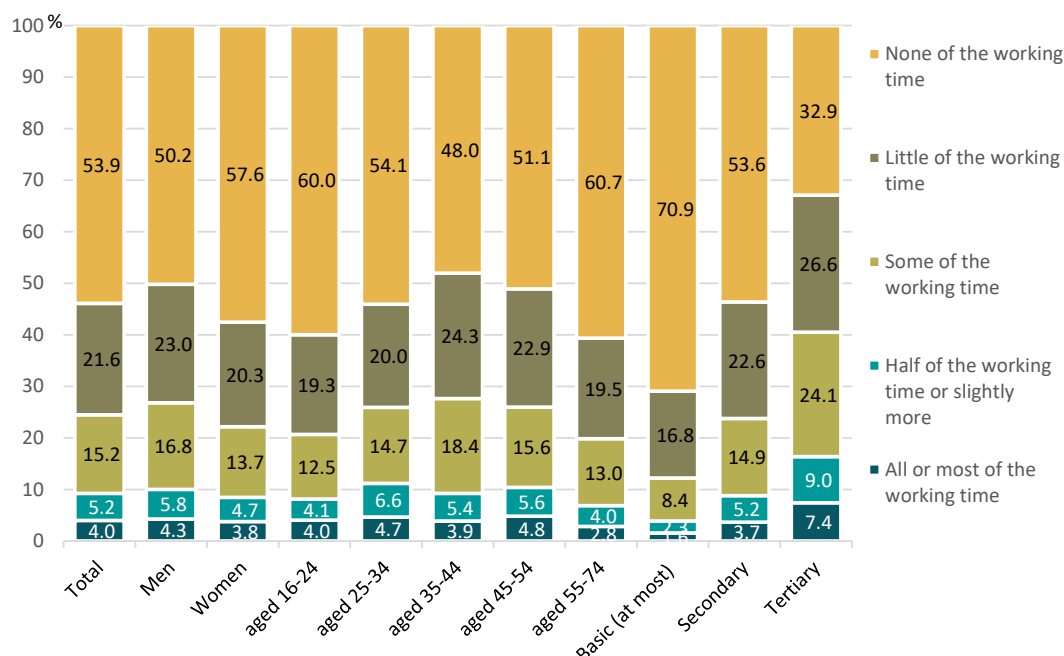
Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

A smaller number of people (464.4 thousand; 9.2%) reported spending at least half of their working time performing relatively complex calculations, including the calculation of fractions and percentages, regardless of the means used (calculator, specialised software, manual or mental calculation).

This share is higher among men (10.0%) than among women (8.5%), in the 25 to 34 age group (11.2%) compared to the 55 to 74 age group (6.8%) and increases with the level of education (3.9%, 8.8% and 16.4% at basic, secondary and tertiary level, respectively).

Similarly to the reading skill, a higher share of persons devoting at least half of their working time to this task is also observed in the Services sector (9.6%), with emphasis on "Professional, scientific and technical activities" (27.9%), "Financial and insurance activities" (20.7%) and "Information and communication activities" (16.0%). The occupations where the most time is spent working on relatively complex calculations are "Managers" (19.7%), "Professionals" (16.5%) and "Technicians and associate professionals" (15.3%).

Figure 3. Time spent performing relatively complex calculations



Source: Statistics Portugal. Labour Force Survey ad hoc module 2022 "Job Skills".

As indicated by Eurostat in its publication analysing the results of this module⁵, there is a positive correlation between the share of people who spend half or more of their working time reading manuals or technical documents and those who spend half or more of their working time performing relatively complex calculations. According to Table 1, 215.2 thousand people (4.3% of respondents) spend at least half of their working time on these two tasks/skills. Considering the column total, among those who devote at least half of their working time to the calculation skill, 46.9% also spend at least half of their working time on reading. Considering the row total, of those who spend at least half of their working time on the reading skill, 32.1% also spend at least half of their working time on calculation.

Focusing the analysis on this smaller group of people, it is observed that it is composed mainly of men (54.4%) (8.7 percentage points (pp) more than women (45.6%)), people aged 45 to 54 (30.1%), employed (or formerly employed) in the Services sector (78.1%) - namely in "Wholesale and retail trade; repair of vehicles and motorcycles" (21.9%) or in "Professional, scientific and technical activities" (20.1%) - and in the occupation of "Professionals" (40.9%) or "Technicians and associate professionals " (21.9%).

⁵ Available at [Employment statistics - utilisation of job skills - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&plugin=1&code=sdg_8_4_1).

Table 1. Time spent reading manuals or technical work documents (reading) and performing relatively complex calculations (calculate).

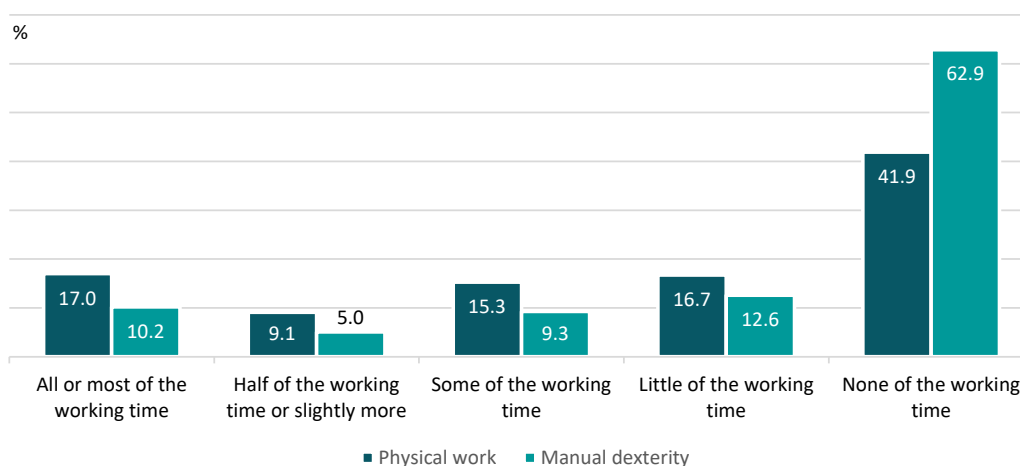
Portugal - 2022	CALCULATE				
	Total	At least half of the working time	Some of the working time	Little or none of the working time	No response
READING	Thousands				
Total	5,369.0	464.4	765.4	3,794.7	344.6
At least half of the working time	679.5	215.2	151.6	303.4	9,2 §
Some of the working time	1,119.1	117.6	358.3	631.8	11,5 §
Little or none of the working time	3,225.8	126.5	250.8	2,828.8	19.8
No response	344.6	x	x	30.7	304.1

Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

2.1.2. Manual tasks

Manual tasks are those that correspond to hard physical work or require manual dexterity.

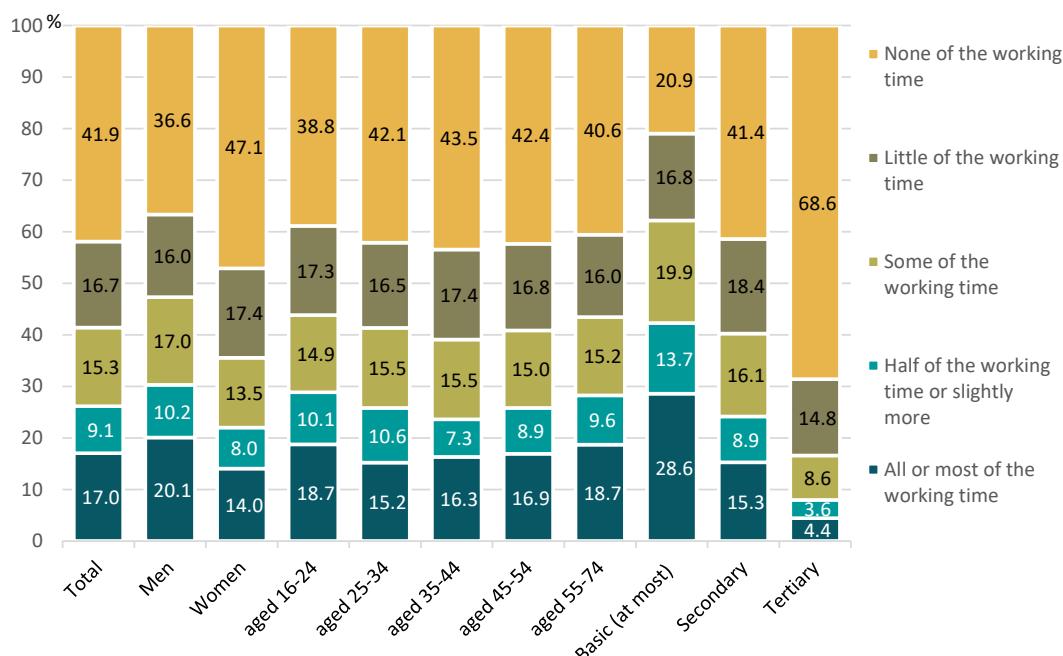
Figure 4. Time spent on manual tasks



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

The number of people who reported spending at least half of their working time doing hard physical work, such as moving heavy objects, lifting people or working in painful or tiring positions, amounts to 1,327.6 thousand (26.1%).

Figure 5. Time spent doing hard physical work



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

There are differences between the share of men (30.3%) and women (22.0%) who reported spending at least half of their working time performing physically strenuous tasks. By age groups, a lower share is observed among those aged 35 to 44 (23.6%) compared to the younger group (28.9%) and the older group (28.3%). Contrary to the cognitive tasks, there is an inverse relationship between educational level and the use of physical skills: 42.3% of those who completed, at most, the first or second stages of basic education indicated that they use this skill for at least half of their working time, a share that decreases to 24.2% among those with upper secondary and post-secondary education and to 8.0% among those with tertiary education.

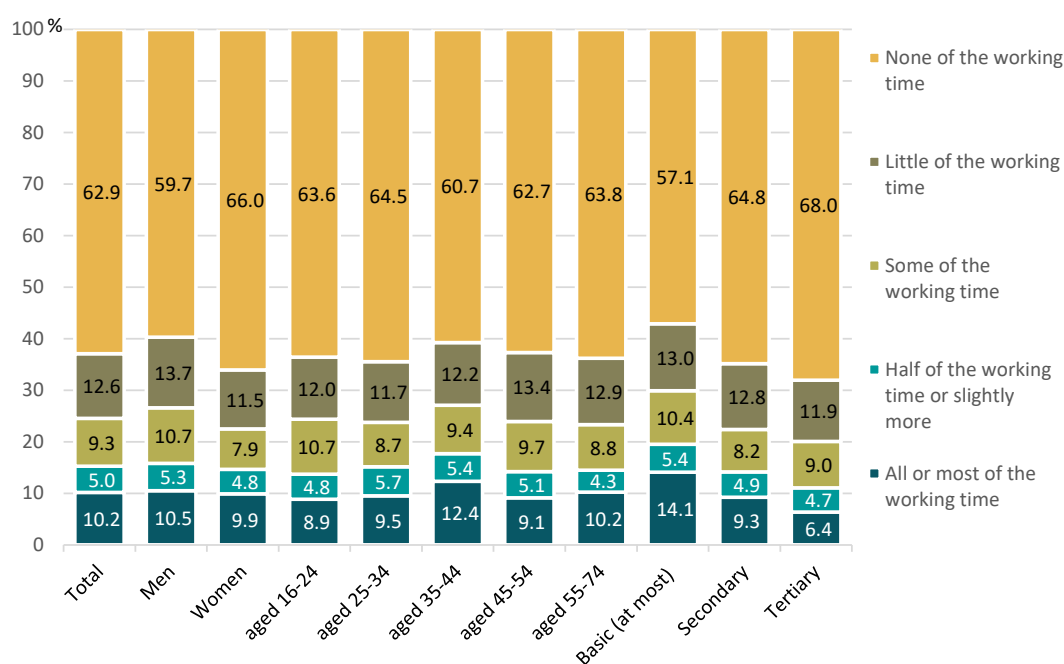
Also when analysing by activity sector, differences are observed in relation to cognitive tasks. The share of people who reported performing tasks based on hard physical work for most of their working day is 61.0% in the Agriculture, forestry and fishing sector, compared to 37.5% in the Manufacturing, electricity, gas and water supply and construction sector and 20.7% in the Services sector. In the latter, the activities that stand out in the use of the hard physical work skill are "Human health and social work activities" (31.9%), "Accommodation and food services activities" (30.5%) and "Transportation and storage" (30.3%). Consequently, the occupations where the most time is spent performing hard physical work are "Skilled agricultural and fishery workers" (68.4%), followed by "Craft and related trades workers" (52.1%) and "Elementary occupations" (49.5%).

Around 770 thousand people (15.2%) reported spending at least half of their working time performing tasks that require manual dexterity. This skill is characterised by the ability of the hands and fingers to perform tasks that require precise coordinated movements, such as surgery, drawing, repairing objects, playing musical instruments, among others.

This share is almost identical between men (15.8%) and women (14.7%) and higher in the 35 to 44 age group (17.7%), being visible a reduction with increasing educational attainment (19.5%, 14.2% and 11.1% at basic, secondary and tertiary level, respectively).

In contrast to the hard physical work skill, it is in the Manufacturing, electricity, gas and water supply and construction sector (25.7%) that a higher share of those who devote most of their working time to tasks requiring manual dexterity is observed. In this sector, "Manufacturing" activities stand out (27.6%). In the Services sector, only 11.7% reported devoting half or more of their working time to this type of task, with "Human health and social work activities" (19.4%) standing out. The occupations where more time is spent performing tasks requiring manual dexterity are "Craft and related trades workers" (37.5%), "Plant and machine operators, and assemblers" (23.1%) and "Technicians and associate professionals" (13.3%).

Figure 6. Time spent on tasks requiring manual dexterity



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Similar to what was observed for cognitive tasks, there is also a positive correlation among manual tasks between those who spend half or more of their working time doing hard physical work and those who spend most of their working time doing tasks that require manual dexterity. Table 2 shows that 358.0 thousand people (7.1% of respondents) spend at least half of their working time on these two tasks/skills. Nevertheless, it is interesting to compare the different shares that this group represents if one considers the total in column (46.6%) or in row (27.2%).



Table 2. Time spent on hard physical work (physical work) and tasks requiring manual dexterity (manual dexterity)

Portugal - 2022	MANUAL DEXTERITY				
	Total	At least half of the working time	Some of the working time	Little or none of the working time	No response
PHYSICAL WORK	Thousands				
Total	5,369.0	771.1	469.6	3,817.0	311.2
At least half of the working time	1,327.6	358.0	140.9	815.9	12,8 \$
Some of the working time	775.7	115.7	138.0	514.2	7,8 \$
Little or none of the working time	2,977.6	294.6	188.9	2,479.5	14,5 \$
No response	288.1	x	x	7,5 \$	276.0

Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

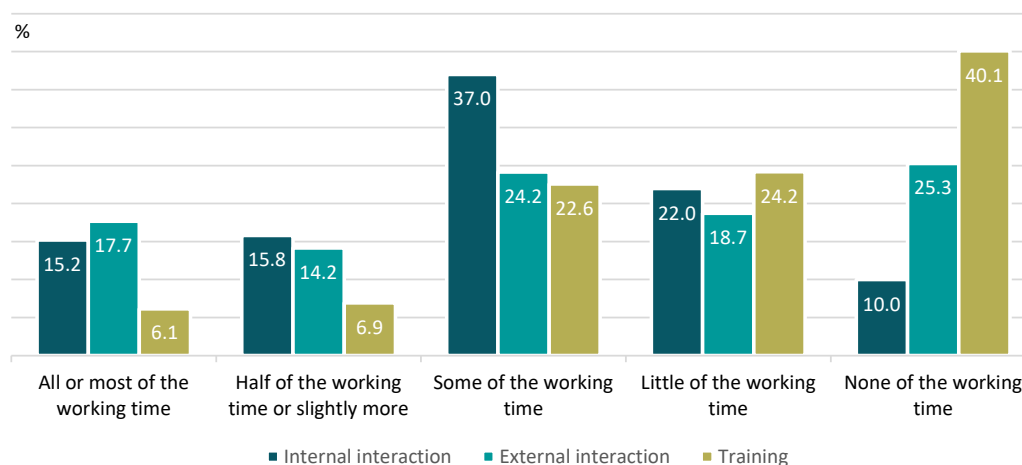
Focusing the analysis on this smaller group of people, it is observed that it is composed mostly of men (60.2%) (20.4 pp more than women (39.8%)), people aged 35 to 44 years (27.5%) with a very low participation of young people (5.9%), employed (or having been employed) both in the secondary sector (48.1%), namely in "Manufacturing" activities (61.9%), and in the tertiary sector (47.1%), more specifically in "Wholesale and retail trade; repair of motor vehicles and motorcycles" activities (25.0%) and in "Human health and social work activities" (22.4%). The occupation of this group that stands out the most is that of "Craft and related trades workers" (40.3%).

2.1.3.Social tasks

Social tasks include verbal communication about work matters with people within the same enterprise or organisation (colleagues, managers or others) and with people external to the organisation where one works (e.g. customers, suppliers, patients, students), as well as tasks of counselling, training or teaching other people, whether internal or external to the enterprise or organisation.

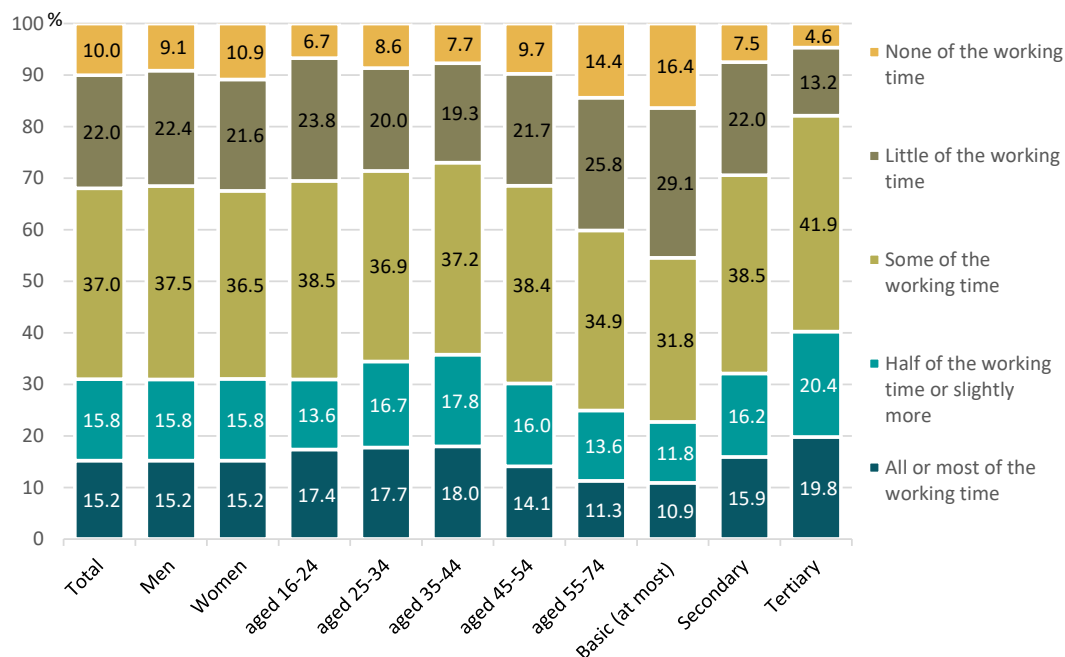
As a skill required in most economic activities and occupations, only 503.0 thousand people (10.0% of respondents) indicated that they do not spend any time interacting with people internal to the enterprise or organisation. This response option was more common among women (10.9%), people aged 55 to 74 (14.4%), who had completed, at most, the first or second stages of basic education (16.4%) and who work (or worked) in the Agriculture, forestry and fishing sector (27.8%).

Figure 7. Time spent on social tasks



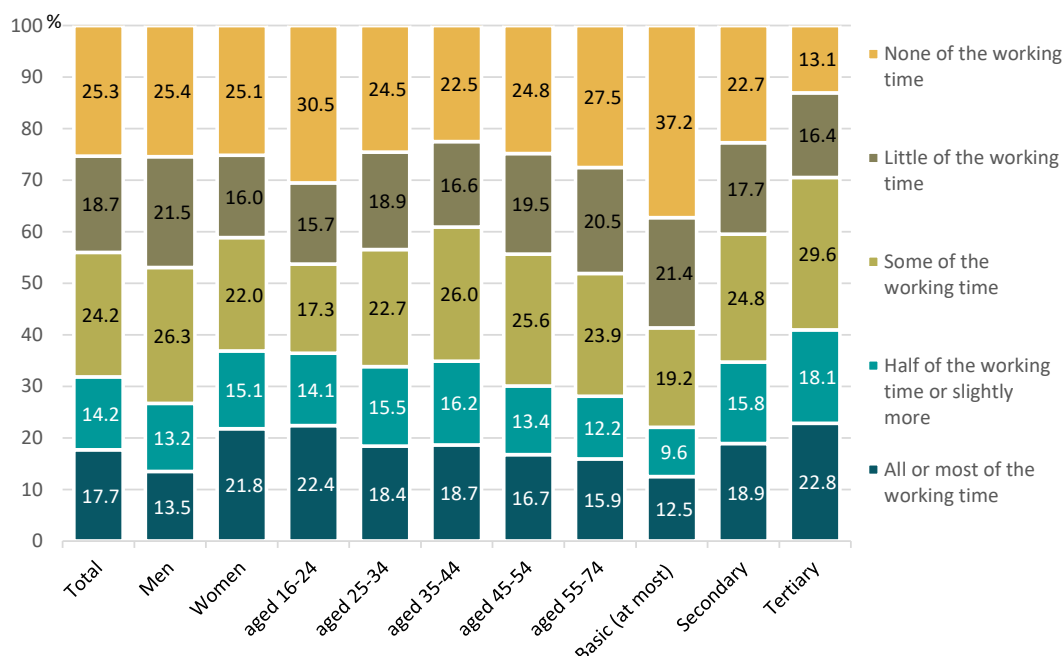
Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Figure 8. Time spent interacting with people internal to the enterprise or organisation



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Figure 9. Time spent interacting with people external to the enterprise or organisation



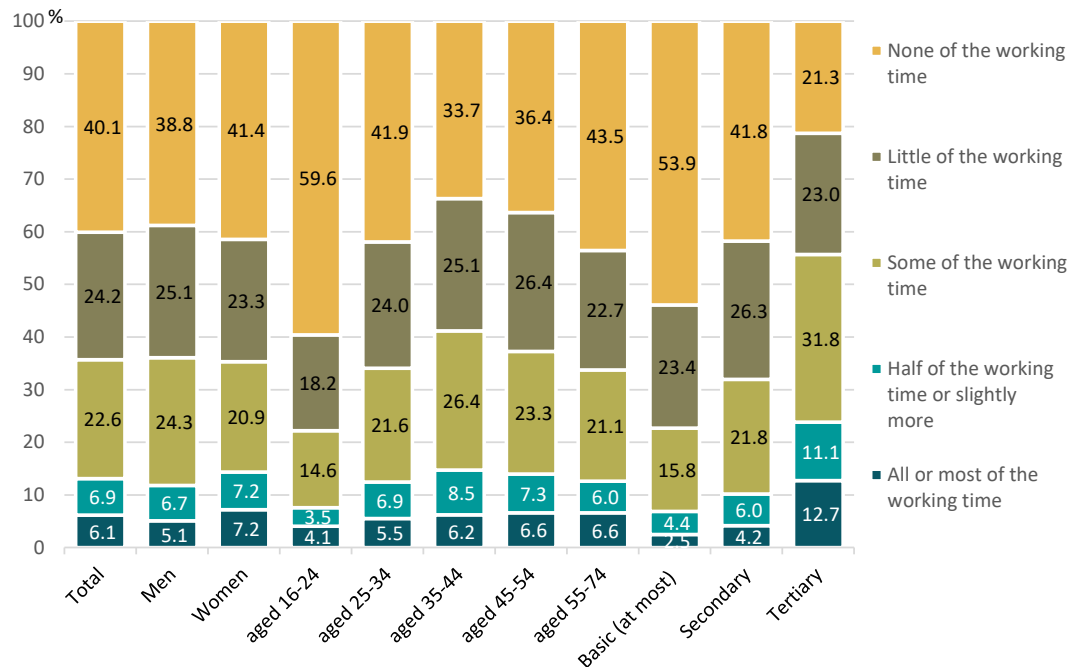
Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Around 25% of respondents (1,274.2 thousand) indicated that they do not spend any working time interacting with people external to the enterprise or organisation. However, 31.8% (1,604.2 thousand) indicated that they spend at least half of their working time on this activity.

There is a difference of 10.2 pp between the share of women (36.9%) and men (26.7%) who indicated spending at least half of their working time interacting, for work-related reasons, with people external to their enterprise or organisation. When analysing by age groups, there seems to be a reduction in this type of interaction with increasing age (36.5% in the 16 to 24 age group and 28.1% in the 55 to 74 age group). On the other hand, when considering the level of education, there is an increase in the time spent in external interaction, reaching 41.0% among those with tertiary education.

As expected, it is in the Services sector (39.4%) that a greater use of this social skill is observed, with emphasis on the activities of "Education" (53.3%), "Wholesale and retail trade; repair of motor vehicles and motorcycles" (48.7%) and "Accommodation and food services activities" (47.0%). The occupational group that spends the most time in this interaction is "Service and sales workers" (51.6%).

Figure 10. Time spent advising, training or teaching other people internal or external to the enterprise or organisation



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

The skill of advising, training or teaching other people such as colleagues, clients or students occupies most of the working time of 13.1% of respondents (656.7 thousand).

More women (14.4%) reported performing these tasks, people aged 35 to 44 (14.7%), with tertiary education (23.8%), employed (or having been employed) in the Services sector (15.7%), particularly in "Education" activities (49.4%). The occupation with the highest share of use of this skill is that of "Professionals" (27.9%).

Table 3. Time spent in interaction tasks, for work-related reasons, with people internal or external to the enterprise or organisation

Portugal - 2022	EXTERNAL INTERACTION				
	Total	At least half of the working time	Some of the working time	Little or none of the working time	No response
INTERNAL INTERACTION		Thousands			
Total	5,369.0	1,604.2	1,216.8	2,217.1	331.0
At least half of the working time	1,562.5	777.0	312.3	465.8	7,4 \$
Some of the working time	1,862.7	454.3	670.0	725.1	13,3 \$
Little or none of the working time	1,609.5	364.1	230.2	1,007.7	7,5 \$
No response	334.3	8.8	x	18.4	302.8

Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".



Similarly to the matrices presented for cognitive and manual tasks, this cross-referencing was also carried out in the context of social tasks, with the option of analysing the group of people who interact, for work-related reasons, both with people internal to the organisation (colleagues, managers or others) and external (customers, suppliers, patients, students, for example). Table 3 shows that 777.0 thousand people (15.5% of respondents) spend at least half of their working time on these two tasks/skills, with no significant difference between the total in column (48.7%) or in row (50.0%).

Focusing the analysis on this smaller group of people, it is found that it is composed mostly of women (55.7%), people aged 35 to 44 (28.2%), employed (or who have been employed) in the tertiary sector (84.3%), more specifically in the activities of "Wholesale and retail trade; repair of motor vehicles and motorcycles" (23.8%). The occupations that stand out the most are "Professionals" (26.4%) and "Service and sales workers" (25.0%).

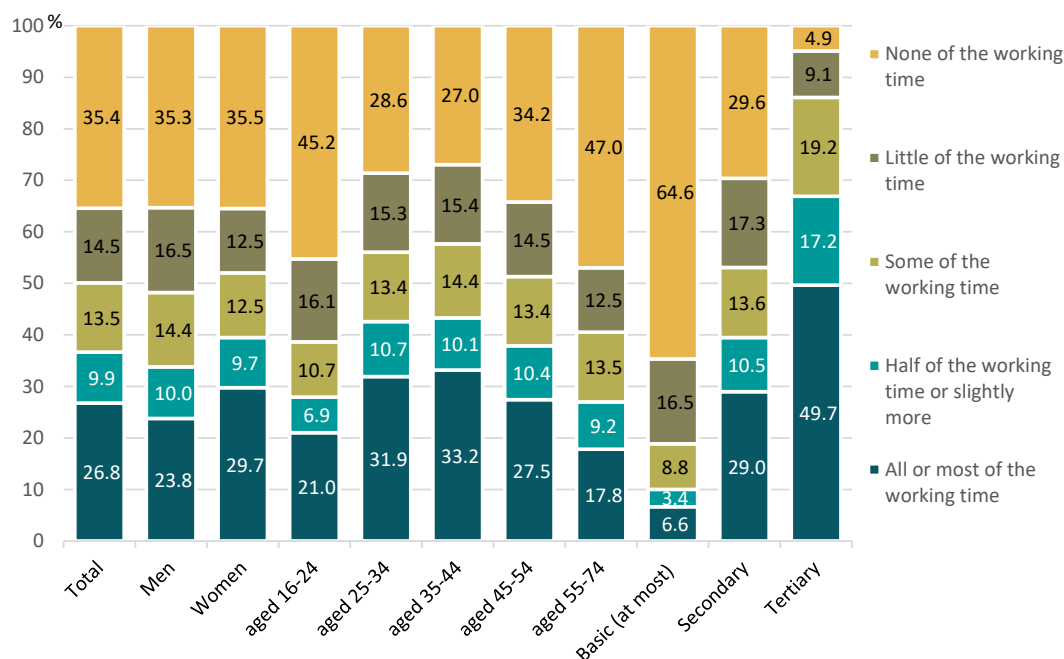
2.1.4. Use of digital devices

The time spent working on the computer, tablet or smartphone (excluding non-video phone calls) allows measuring the use of digital technologies for work-related purposes in different occupations. Tasks involving this skill are varied, such as web browsing, videoconferences or video calls, reading and writing emails or messages, working on word processors (e.g., Word), spreadsheets (e.g., Excel) or presentation programs (e.g., PowerPoint).

About 1,857 thousand people (36.6%) reported spending at least half of their working time using digital devices for work-related purposes, while 26.8% (1,357.6 thousand) of respondents even reported spending all or most of their working time using this skill.

The latter option was more common among women (29.7%) than among men (23.8%), people aged 35 to 44 (33.2%), with a lower share among the youngest (21.0%) and the oldest (17.8%), and a clear distinction according to educational level: only 6.6% among those having completed, at most, the first or second stages of basic education, increasing to 29.0% among those with upper secondary and post-secondary education and 49.7% among those with tertiary education. The sector of activity in which more people reported using digital devices for all or most of their working time was Services (31.3%), namely in the "Information and communication activities" (84.3%), "Financial and insurance activities" (83.9%) and "Professional, scientific and technical activities" (71.4%). The occupations that make the most use of this skill are "Clerical support workers" (62.2%) and "Professionals" (50.6%).

Figure 11. Time spent working on digital devices



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Being a transversal skill to cognitive and social tasks, matrices were prepared to cross the use of digital devices with reading, calculation, internal interaction, external interaction and training. This information can be found in the attached Excel tables, and in this Press Release only the result of the cross table between the use of digital devices and interaction with people external to the enterprise or organisation is analysed.

Table 4. Time spent using digital devices and interacting with people external to the enterprise or organisation for work-related reasons

Portugal - 2022	DIGITAL				
	Total	At least half of the working time	Some of the working time	Little or none of the working time	No response
EXTERNAL INTERACTION					
Thousands					
Total	5,369.0	1,856.8	683.1	2,526.9	302.3
At least half of the working time	1,604.2	714.2	307.4	572.1	10,5 §
Some of the working time	1,216.8	572.7	195.3	440.7	8,1 §
Little or none of the working time	2,217.1	551.3	174.1	1,482.0	9,6 §
No response	331.0	18.5	x	32.1	274.0

Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

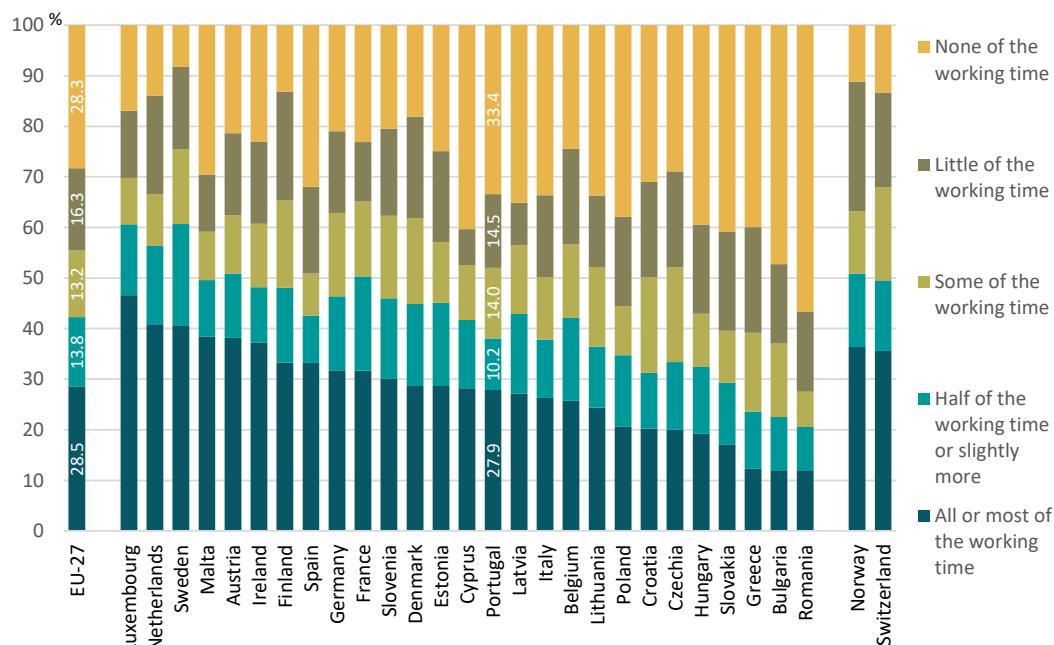


Table 4 shows that 714.2 thousand people (14.3% of respondents) spend at least half of their working time on these two tasks/skills, more of whom, while spending most of their time interacting with people external to their enterprise or organisation for work-related reasons, also spend at least half of their working time using digital devices (44.8%; row total) than the reverse (38.9%; column total).

Focusing the analysis on this smaller group of people, it is found that it is composed mostly of women (58.7%) (17.4 pp more than men (41.3%)), people aged 35 to 44 (29.0%) with a very small expression of young people (5.4%), employed (or who have been employed) in the tertiary sector (88.1%), namely in the activities of "Wholesale and retail trade; repair of motor vehicles and motorcycles" (24.8%). The occupations that stand out the most are "Professionals" (31.9%), "Clerical support workers" (20.9%) and "Technicians and associate professionals" (19.7%).

In the 27 European Union countries (EU-27), 42.3% of the employed population aged 15 to 74⁶ reported spending at least half of their working time using digital devices for work-related purposes, a higher share than in Portugal (38.1%). Restricting the analysis to those who reported spending all or most of their working time using this skill, the European average was 28.5% of the employed population aged 15 to 74 and the national average was 27.9%, placing Portugal as the 15th EU-27 country with the highest use of digital devices for work-related purposes.

Figure 12. Time spent working on digital devices in the European Union by the employed population



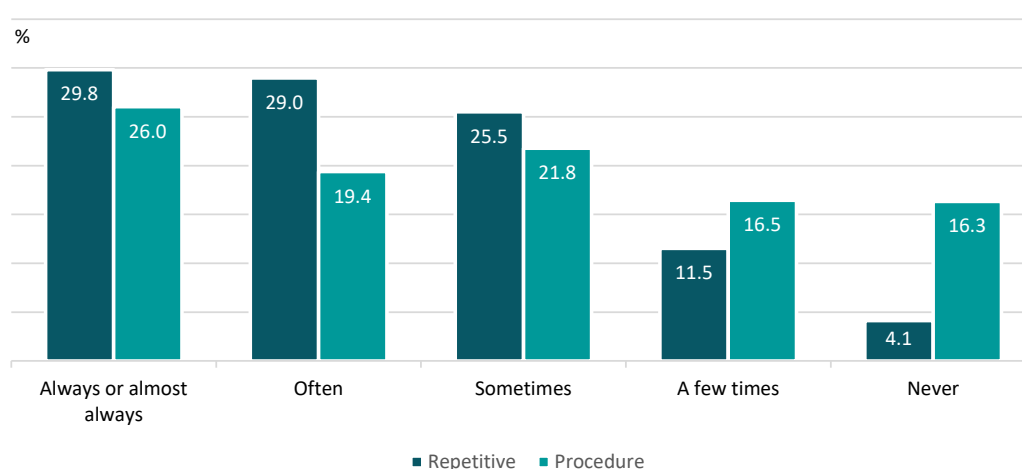
Source: Eurostat, [Employment statistics - utilisation of job skills - Statistics Explained \(europa.eu\)](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&code=sdg_8_4_1&plugin=1).

⁶ In its Statistics Explained on the results of the Job Skills module, Eurostat has limited the analysis of the results to the employed population.

2.1. Working methods

The module also focused on the working methods adopted, more specifically on the degree of autonomy to decide the order and content of the tasks performed and the extent to which these tasks are repetitive, always done in the same way, or are precisely defined through strict procedures (such as legislation, action or construction plans, medical protocols, cooking recipes).

Figure 13. Working methods - repetitive tasks and standardised procedures

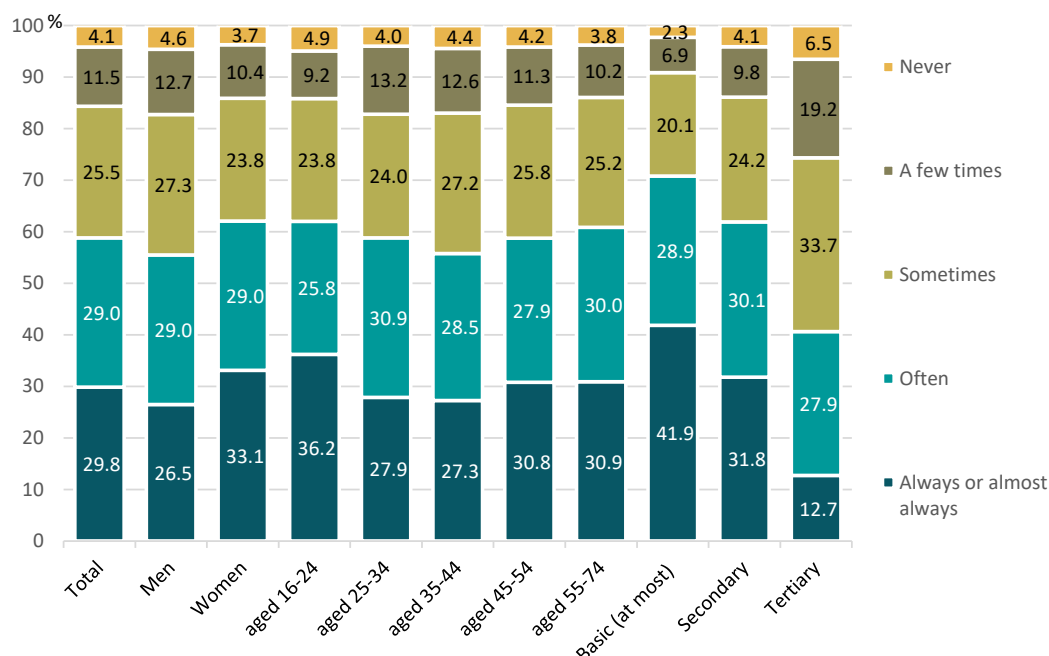


Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Repetitive tasks are those that are performed frequently without any variation, change or adaptation. Around 1,500 thousand people (29.8% of respondents) indicated that their work always or almost always involves repetitive tasks. Only 208.4 thousand (4.1%) indicated that this is never the case.

More women (33.1%) than men (26.5%) indicated performing repetitive tasks always or almost always at work and people aged 16-24 (36.2%), with a decrease in this share with increasing educational attainment: 41.9% among those who have completed, at most, the first or second stages of basic education, 31.8% among those with upper secondary and post-secondary education and 12.7% with tertiary education. The performance of repetitive tasks always or almost always is higher in the Agriculture, forestry and fishing sector (39.2%) compared to the Manufacturing, electricity, gas and water supply and construction sector (34.8%) and the Services sector (27.7%). In this context, the activities that stand out are "Accommodation and food services activities" (40.9%), "Transportation and storage" (39.5%) and "Manufacturing" (38.8%). The occupations that always or almost always perform repetitive tasks are "Plant and machine operators, and assemblers" (52.2%), followed by "Elementary occupations" (47.8%).

Figure 14. Performing repetitive tasks, always done in the same way, at work



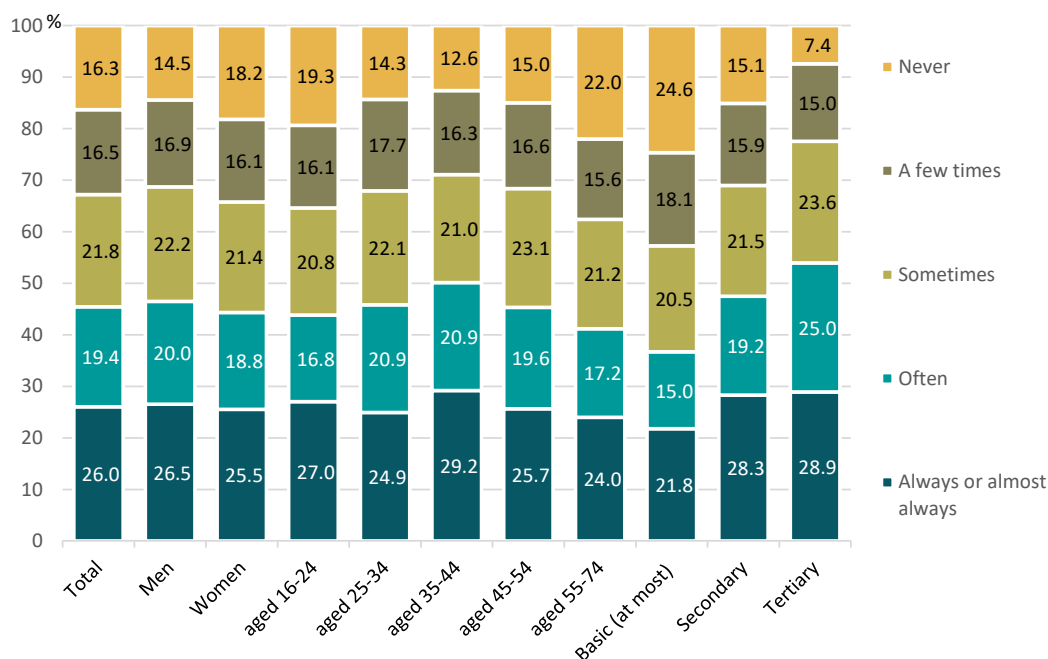
Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Standardised tasks are those whose execution follows strict rules that specify the time of their performance and duration, their sequence, the methods to be applied and the use and communication of their results. Analysing the intensity of use of this working method provides a measure of the standardisation of tasks in different occupations.

Around 1,277 people (26.0% of respondents) indicated that their work always or almost always involves performing standardised tasks. No substantial differences are observed between men (26.5%) and women (25.5%), nor between the age groups analysed, despite the prominence of those aged 35 to 44 (29.2%). Both people with upper secondary and post-secondary education (28.3%) and tertiary education (28.9%) reported performing standardised tasks always or almost always. However, only 7.4% of those with tertiary education indicated never performing this type of task, compared to 15.1% of those with upper secondary and post-secondary education.

The performance of standardised tasks always or almost always is higher in the Services sector (27.0%), mainly in "Financial and insurance activities" (45.5%), in "Transportation and storage" (36.3%) and in "Public administration and defence; compulsory social security" (35.5%), but is also present in the Manufacturing, electricity, gas and water supply and construction sector (24.6%), namely in "Manufacturing" (26.7%). The occupations that always or almost always perform tasks according to strict procedures are "Armed forces" (44.0%), followed by "Plant and machine operators, and assemblers" (33.6%).

Figure 15. Performance of precisely described tasks by strict procedures



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Tasks that are both repetitive and standardised are the most likely to be automated, with workers performing them potentially at risk of being replaced by new technologies.

Table 5 shows that 1,471.4 thousand people (30.1% of respondents) indicated that they often or always perform repetitive and standardised tasks, with more of them also performing repetitive tasks often or always (66.4%; row total) than the reverse (51.6%; column total).

Focusing the analysis on this smaller group of people, it is found that it is composed mostly of women (51.4%), people aged 45 to 54 (26.5%) with a very small expression of young people (7.2%), employed (or having been employed) in the tertiary sector (71.4%), namely in the activities of "Wholesale and retail trade; repair of motor vehicles and motorcycles" (19.2%) and in "Human health and social work activities" (16.7%). The occupations that stand out the most are "Service and sales workers" (19.8%) and "Professionals" (17.9%).



Table 5. Performing repetitive and standardised tasks

Portugal - 2022	REPETITIVE				
	Total	Always or often	Sometimes	A few times or never	No response
PROCEDURE	Thousands				
Total	5,369.0	2,958.0	1,283.2	787.6	340.1
Always or often	2,228.5	1,471.4	495.3	250.4	11,4 \$
Sometimes	1,068.7	507.7	375.2	180.0	x
A few times or never	1,609.6	874.5	381.6	347.9	5,7 \$
No response	462.1	104.5	31.1	9,4 \$	317.2

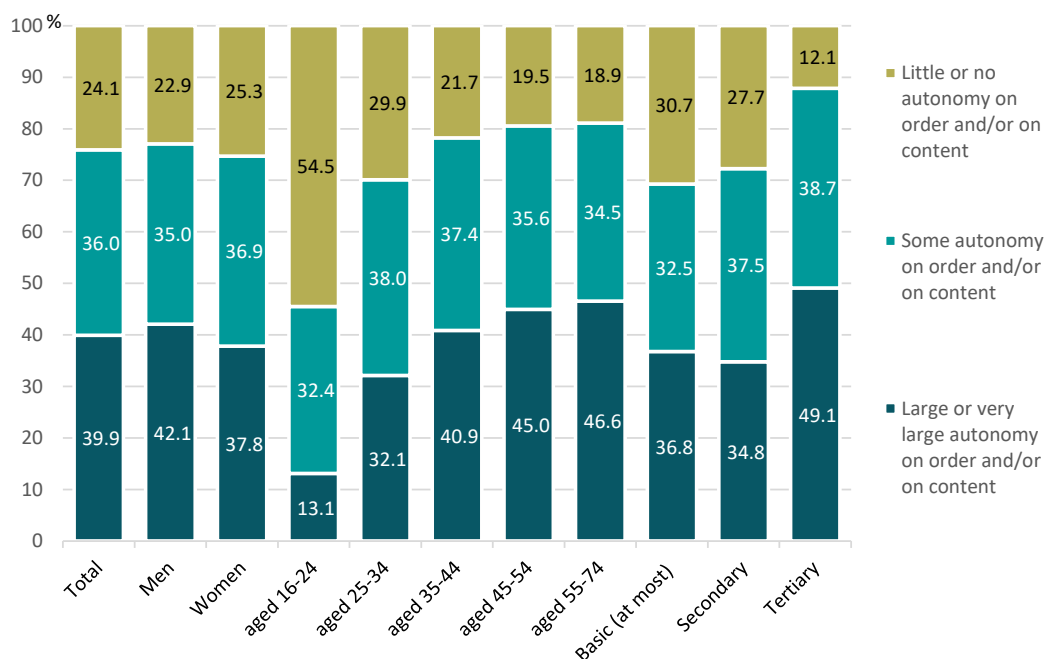
Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Finally, the module asked the target population about their degree of autonomy to decide the order of their tasks (which includes, for example, how they are divided and how deadlines are sequenced) and to decide their content, being able to perform them with the freedom to choose the resources, techniques and tools they deem most appropriate, as well as to decide on the scope and characteristics of the final work product.⁷

Almost 1,990 thousand people (39.9% of respondents) indicated that they have large or very large autonomy to decide the order and/or content of the tasks they perform. This degree of autonomy is more common among men (42.1%) than among women (37.8%), increases with age (13.1% in young people and 46.6% in older people) and with the level of education (36.8% among those who have completed, at most, the first or second stages of basic education and 49.1% among those with tertiary education), being more evident in the primary sector (53.1%), followed by the tertiary sector (42.4%) and the secondary sector (31.3%). People working (or who worked) in "Professional, scientific and technical activities" are those who indicated having the highest degree of autonomy (61.3%), followed by "Real estate activities" (56.0%), as well as those in the occupation of "Managers" (77.1%).

⁷ Both questions were asked providing three response options (large or very large autonomy; some autonomy; little or no autonomy), which combined into nine degrees of autonomy to decide the order and/or content of tasks. This breakdown is available in the attached Excel tables, as well as the condensed version analysed in the Press Release.

Figure 16. Degree of autonomy to decide on the order and/or content of tasks



Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".

Since the autonomy to decide on the order and content of tasks is a work method that can be combined with the other two analysed (execution of repetitive tasks, always done in the same way, and precise execution of tasks through strict procedures), the respective crossing matrices were obtained, and the results of performing standardised tasks with autonomy at work are presented in this Press Release.

Table 6. Accurate execution of tasks through strict procedures and degree of autonomy at work

Portugal - 2022	PROCEDURE				
	Total	Always or often	Sometimes	A few times or never	No response
JOB AUTONOMY	Thousands				
Total	5,369.0	2,228.5	1,068.7	1,609.6	462.1
Large or very large autonomy on order and/or on content	1,989.0	888.1	370.9	695.4	34.5
Some autonomy on order and/or on content	1,790.6	757.3	474.8	513.3	45.3
Little or no autonomy on order and/or on content	1,200.1	553.6	213.5	384.6	48.3
No response	389.3	29.5	9,5	16.3	333.9

Source: Statistics Portugal, Labour Force Survey ad hoc module 2022 "Job Skills".



Table 6 shows that 888.1 thousand people (18.3% of respondents) indicated that they often or always perform standardised tasks that combine with total or great autonomy to decide the order and/or content of the tasks, with a difference of 5 pp in the shares that this group represents if the total is considered in column (40.4%) or in row (45.4%).

Focusing the analysis on this smaller group of people, it appears that it is composed mostly of men (54.4%), 8.8 pp more than women (45.6%), people aged 45 to 54 (30.6%) with a very small expression of young people (1.8%), employed (or who were employed) in the tertiary sector (78.1%), namely in the activities of "Wholesale and retail trade; repair of motor vehicles and motorcycles" (18.9%) and in "Human health and social work activities" (14.3%). The group of occupations that stands out the most is that of "Professionals" (32.6%).



TECHNICAL NOTE

LABOUR FORCE SURVEY

The main purpose of the Labour Force Survey is to classify the population in terms of their participation in the labour market. It is a quarterly sample survey, addressed to all persons living in the national territory.

Most of the characteristics observed in this survey report to the situation in one pre-defined week (from Monday to Sunday), known as reference week. The reference weeks are uniformly distributed throughout the quarters and years. The interviews usually take place in the week following the reference week.

The information is obtained directly, through computer-assisted interview by using a mixed data collection mode: the initial interview is done face-to-face by an interviewer visiting the household and the other five interviews are done by telephone if certain requirements are met. It should be noticed that, following the COVID-19 pandemic and the measures adopted by the competent authorities, Statistics Portugal has decided, between the first fortnight of March 2020 and the end of the collection of the 2nd quarter of 2022, to suspend the face-to-face collection mode, replacing it exclusively with telephone interviews.

The LFS sample is divided into six subsamples (rotations/waves), and in each quarter a subsample is replaced by a new one (selected under the same design) after being observed for six consecutive quarters. This rotation design introduces a longitudinal component, thus allowing the follow-up of persons who remain in the sample for a maximum period of one and a half year.

The subsampling strategy (wave approach) consists of taking advantage of the organisation of the LFS sample in waves. This feature enables the construction of an annual microdata base composed of four subsamples, each one corresponding to the wave that enters in the sample for the first time (new rotation) in each quarter. This means that, in each quarter, the annual, biennial and eight-yearly questions will be placed only in 1/6 of the quarterly sample's households (new rotation). In subsequent interviews, only quarterly questions will be applied to these households, regardless of the result of the first interview. Therefore, the microdata base with non-quarterly questions will only be complete after the end of the 4th quarter of each year.

This methodology makes it possible to reduce the statistical burden on families and, consequently, the interview time, as they only respond to the entire questionnaire in only one of the six survey quarters (in the quarter in which they enter the sample for the first time).

The weighting factors of persons in the subsample wave approach are adjusted to ensure their consistency with the weighting factors for the annual averages obtained from the complete sample at labour status level (employed, unemployed and inactive population), sex (male, female) and age groups (16-24, 25-34, 35-44, 45-54, 55-64), type of the employees' employment contract (permanent job, temporary job, other contractual arrangements) and work duration regime (full-time, part-time).

For more detailed information consult the Labour Force Survey [methodological document](#) (only in Portuguese) available at Statistics Portugal website.



AD HOC AND REGULAR LABOUR FORCE SURVEY MODULES

The Labour Force Survey (LFS) annual modules are thematic surveys, of small dimension, on issues considered of interest for the characterisation of the labour market and are intended to supplement the information gathered from the core questionnaire of the LFS. The questions of these surveys are meant primarily to obtain more detailed information on a specific topic that will be used to define and/or monitor specifically European policy initiatives. Due to this goal, these modules are held every year and some of the topics covered are repeated cyclically, depending on the needs and interest of the topic under analysis.

With the entry into force of the Integrated European Social Statistics (IESS) Framework Regulation⁸, two changes were introduced in these annual modules carried out simultaneously with the Labour Force Survey: the wave approach and the selection of six topics to be collected regularly every eight years, interspersed with ad hoc topics (single collection) collected every four years.

Topics (fixed periodicity)	Regular	Collection year
Labour market situation of migrants and their immediate descendants (8Y)	Yes	2021
Ad hoc subject - Job skills	No	2022
Pensions and labour market situation (8Y)	Yes	2023
Young people on the labour market (8Y)	Yes	2024
Reconciliation between work and family life (8Y)	Yes	2025
Ad hoc subject - to be defined	No	2026
Work organisation and working time arrangements (8Y)	Yes	2027
Accidents at work and other work-related health problems (8Y)	Yes	2028

In the annual modules case, the weighting factors of persons in the subsample wave approach are adjusted to ensure their consistency with the weighting factors for the annual averages obtained from the complete sample also for the age group of the target population of the module.

The 2022 Labour Force Survey ad hoc module on “Job Skills” targeted the population aged 16 to 74, employed or not employed with work experience in the previous two years, residing on national territory and was carried out with co-funding from the European Union.

For more detailed information on this statistical operation consult its [methodological document](#) (only in Portuguese) available at Statistics Portugal website.

Attached to this Press Release, an Excel file with a set of result tables is also published. An anonymized microdata base is also available to accredited researchers for scientific research purposes.

Published data were calibrated by using the population estimates calculated from the final results of Census 2011.

Due to rounding, the totals in tables and diagrams do not always match the sum of parts.

⁸ Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019 (<https://eur-lex.europa.eu/eli/reg/2019/1700/oj>)



SOME CONCEPTS

Employed: person aged 16 to 89 who, during the reference period, was in one of the following situations:

- worked for at least one hour for a wage or salary, in cash or in kind (including unpaid family work);
- had a formal attachment to his/her job but was not at work temporarily;
- was in early retirement but working in the reference week.

Unemployed: person aged 16 and 74 who during the reference period met simultaneously the following situations:

- neither had a job nor was at work;
- had actively sought work, i.e. had actively searched for a paid or unpaid job during the specified period (reference period or the three previous weeks); and
- was available for a paid and unpaid job.

Inactive: Person aged below 16, above 89, 16 to 89 who, during the reference period, could not be considered active, i.e., was neither employed nor unemployed.

Non-employed population: the whole of the unemployed population and the inactive population.