Final Report

Survey on the education-employment transitions of university finalists

Relatório Final do Inquérito à Transição Ensino-Emprego dos Finalistas Universitários

Maputo
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CEEG

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Final report of the survey on the education-employment transitions of university finalists

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Preface

This report documents the main findings of the Survey of School-to-Work Transitions of University Students. The research was planned and implemented by researchers at the United Nations University World Institute for Development Economics Research (UNU-WIDER), the Development Economics Research Group (DERG) at the University of Copenhagen (UCPH), and the Centre for Economics and Management Studies (CEEG) at Eduardo Mondlane University (UEM) in Maputo. The research and subsequent analysis was implemented under the direction of the Department for Economic and Financial Research (DEEF), CEEG, UNU-WIDER and UCPH-DERG, as part of the programme entitled *Inclusive Growth in Mozambique – Scaling-up Research and Capacity*, funded by the Danish Ministry of Foreign Affairs (DANIDA), the Finnish Ministry of Foreign Affairs (MFA) and the Norwegian Ministry of Foreign Affairs.

Summary

Main Findings:

- This report presents the findings from a survey tracking more than 2,000 Mozambican university students during their transition from university education into the labour market.
- An initial survey was conducted in 2017 with final-year students at six of the country's largest universities, located in the cities of Beira and Maputo. From the start of 2018 through to September 2019, the same participants were contacted by telephone every quarter to establish their economic and employment situation.
- After completing their studies, 40% of graduates immediately found employment (or already had a job waiting for them); and, by the last round, 61% had found a job.
- Nonetheless, the tracking study shows that, for many participants, the transition to the labour market is not an easy process.
- Clear segmentation is observed in participants' post-educational transitions:

    1. A first group (∼40%) managed to secure a '*good job*'. These jobs are mainly in public services, technology, finance and construction. They offer relatively high salaries and the contractual terms are better (e.g. permanent employment contract). Most of the participants who found these jobs followed specific courses of study, such as medicine, natural sciences, engineering or education. Of these, a significant number either already had a job prior to completing their studies or found a job soon afterwards.
    2. A second group, comprising almost 1 out of every 3 participants, only managed to find a '*bad job*', characterised by relatively low pay and less job security (e.g., without a contract). Many of these jobs are in the commercial services sector (e.g. retail) and are associated with certain areas of study, such a languages and humanities, social sciences and agriculture.
    3. A third group (∼30%) has failed to find stable employment. By the last round, 23% were unemployed and 7% were not in the labour market. Moreover, 10% of students have never found a job and 1 in 3 worked for less than six months during the monitoring period.

- By the final follow-up round, over half the participants who had found a job were actively looking for other employment and only half consider their current job requires a higher education qualification. Together, these findings suggest that **the Mozambican economy is not generating sufficient or satisfactory employment positions** at this level.

Main Findings (*cont*):

- Most job positions for university graduates are in the services sector. In the last round, only 12% of employed graduates were working in primary or secondary sectors, and 55% worked in public-type services (e.g. education, health).
- Over the tracking period, the average quality of job positions held by graduates improved (e.g. in terms of contracts) and more participants secured stable employment.
- Subjective estimates of the monetary value of higher education (valued in terms of salary increases) are very high for the areas of engineering and health, reflecting the high salaries earned by graduates in these areas (compared with other areas).
- There are notable disparities between men and women in their experiences of transition to the labour market, with women facing more difficulties than their male peers. Less women found work immediately, and women had to look longer for a job when compared with their male peers from the same field of study. By the last survey round, the median salary per sector was generally lower for women (2,000 MZN / 35 USD lower).
- Graduates prefer to stay in the main urban centres (particularly greater Maputo). By the last survey round, only 10% of graduates lived outside of either greater Maputo or Sofala.
- The job-seeking strategies that led to employment are mainly informal (e.g. personal contacts). Formal channels (e.g. media, newspapers) are less effective; but the internet is beginning to be important, mainly for participants with work experience.
- Despite the difficulties faced in their transitions to work, almost all participants believed it was worthwhile to have studied at university, and the vast majority would choose the same university again.

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1 Introduction

The Survey of School-to-Work Transitions of University Graduates (known in Portuguese as the '*Inquérito a Transição Ensino-Emprego dos Finalistas Universitários*', hereafter ITEEFU) sets out to respond to the concerns of the Government of Mozambique, Mozambican society and development partners concerning youth employment in the country. The focus is placed here on the transition by young people from education to the labour market. When this transition is studied, there are two distinct and significant populations: the population who enter the work force immediately after (e.g., secondary) school; and those who transition to employment after achieving tertiary levels of education. Our focus here is on the second group.

Mozambique still faces a serious shortage of skilled human resources, with only 0.9% of its population having attended higher education (INE, 2019), and this only adds to the importance of monitoring the process of school-to-work transition of this particular cohort. The experience of higher skilled young people in their transition to the labour market offers a useful window on the functioning of the formal labour market. Accordingly, this survey sets out to analyse the employability of young people, women and men, who, graduating from university courses in 2017, are expected to have transitioned to the labour market during 2018.

This report summarises the findings of the survey over its two main general phases. The first phase took place from March to November 2017, in the cities of Maputo and Beira, at six universities. The second consisted of six rounds following-up the same sample through quarterly telephone surveys conducted between March 2018 and September 2019.

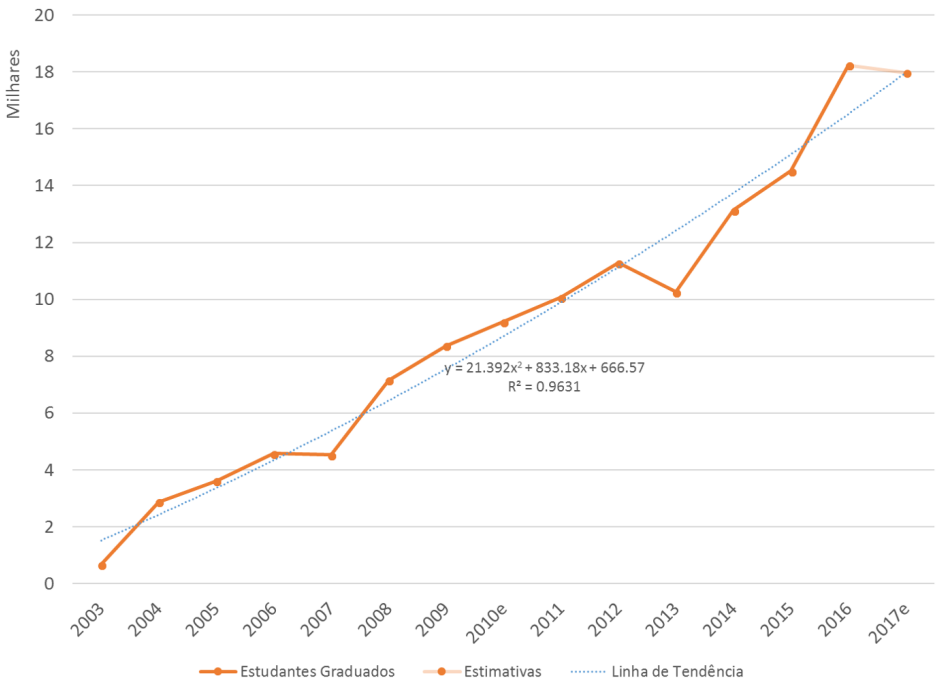
After presenting the sampling and survey implementation methodology, the report looks at the following topics: (1) the graduates' profile; (2) the school-to-work transition processes; (3) the migratory flows observed; (4) the types of work in which the graduates are employed; (5) the strategies that led the graduates to their jobs; (6) the objective and subjective quality of the employment achieved; (7) the salaries earned and (8) the graduates' own reflections on their post-educational experience. The report ends with a section in which we share the main conclusions.

2 Methodology

2.1 Target population

As indicated in the Introduction, the target population for this survey consists of university students graduating in 2017. In order to design our sample, and on the basis of existing public statistics, we made an estimate of the size of this population via a second-order polynomial approximation, the equation used for which is presented in figure 1. For the purposes of calculations, we assumed the number of finalists in 2017 was 17,977 and that all students ending their courses in 2017 would graduate. As such, this population estimate is somewhat of an over-estimate, creating a bias towards over-sampling, which, whilst reducing the economic efficiency of the survey, in no way undermines the statistical power of the estimates.

Figure 1: Number of university graduates in Mozambique, per annum



Source: DCES (2017, 2016a,b, 2012c,a,b, 2011a,b, 2009, 2008, 2007); DCES and DPEC (2005); OESCT (2005)

On the basis of this estimate of the target population of university graduates in 2017, implementation of the survey required consideration of logistics, thus further restricting the target population to finalists from the Maputo campuses of the Universidade Pedagógica (UP), Universidade

Eduardo Mondlane (UEM), Universidade São Tomás de Moçambique (USTM) and Universidade Politécnica (APolitécnica) and from the Beira campuses of the Universidade Católica de Moçambique (UCM) and Universidade Zambeze (UniZambeze). Financial limitations prevented us from covering all universities and those beyond Maputo and Beira. These six universities were chosen because, together, they provide higher education to approximately three quarters of the total university population in Mozambique. So, although it cannot be said that the design of the survey ensures that the findings are strictly representative of *all* universities, this restriction is not expected to bring substantial distortions.

Through the choice of universities, we designed a sample that would be able to produce statistics which were representative of the population of graduates, stratified by gender and area of study. To this end, it was decided to estimate the sub-populations (strata) defined by broad area of study and gender, from the breakdown of students enrolled in 2015, as indicated in Table 1 below.

Table 1: Proportion of graduates by study area and gender

Study area	F	M	FM
Education	14.6%	16.2%	30.8%
Languages and Humanities	0.7%	0.9%	1.6%
Social Sciences, Management and Law	20.9%	23.6%	44.5%
Natural Sciences	1.4%	2.6%	4.0%
Engeneering, Industry and Construction	2.5%	5.4%	7.9%
Agriculture	0.9%	1.2%	2.1%
Health and Welfare	2.7%	3.1%	5.7%
Services	0.7%	2.7%	3.4%
Total	44.3%	55.7%	100.0%

Source: (DCES, 2017)

2.2 Sampling strategy

In order to determine the size of the sample, we followed Cochran (1977). A sample of size of n from a population of size N is needed to permit inference relating to a key question, in our case the estimate p of the proportion P of recent university graduates who are in work, with a margin

of error d and a confidence interval of $1 - \alpha$, is:[1]

$$n = \frac{n_0}{1 + (n_0 - 1)/N} \tag{1}$$

where

$$n_0 = \frac{t^2 p(1-p)}{d^2} \tag{2}$$

and t is the horizontal axis of the standardised normal distribution that excludes an area of total proportion α of the two tails. It is easily calculated that a proportion p equal to 50% generates the highest sample size for each combination of the other parameters. As such, the standard practice, adopted here, is to choose this as the value.

In the first iteration, we made a calculation on the basis of a population $N = 17{,}977$ individuals, a margin of error of 7.5% and a confidence interval of 95%. This generates a minimum sample of 169 people. It should be noted that although this sample makes it possible to infer the proportion of recent graduates who have found employment, it does not allow us to make statistically representative inferences in terms of population strata (e.g. by gender). As noted, it is the intention of this study that our estimates should be statistically representative in terms of gender and area of study, making it possible, for example, to infer the probability of a woman graduating from a course in the area natural sciences of finding employment in the survey period, with statistical certainty enabling us to compare that probability with, for example, that of a man graduating in Education.

There are, however, logistical and financial constraints. Were it not for compromises made in terms of the margin of error and degree of confidence, the survey would have exceeded its budget. In view of these restrictions, the survey took as its objective to generate representative estimates relating to areas of study / gender strata, with a margin of error of 7.5% and a confidence interval of 90%. This option is in line with the practice adopted in several previous surveys.

Two strata are therefore considered: area of studies and gender. As recommended by Cochran (1977, p. 82), sub-samples were calculated for each strata (gender and area of study). Table 2 below presents the theoretical dimensions of the sub-samples and total sample that we set out to survey in the baseline.

[1] This value corresponds to the following equation: $\Pr(\mid p - P \mid \geq d) = \alpha$.

Table 2: Sizes of theoretical sub-samples and total sample

Study area	F	M	FM
Education	115	116	231
Languages and Humanities	60	70	130
Social sciences, Management and Law	117	117	234
Natural sciences	82	96	178
Engineering, Industry and Construction	95	107	202
Agriculture	70	78	148
Health and Welfare	96	99	195
Services	63	96	159
Total	698	779	1477

Source: authors' calculations

2.3 Implementation of baseline survey

The baseline survey was conducted in 2017. Specifically: (1) the training and pilot was conducted in Maputo in April 2017; (2) field work was conducted from April to November 2017, at Universidade Eduardo Mondlane (UEM), Universidade São Tomás de Moçambique (USTM), Universidade Politécnica (APolitécnica) and Universidade Pedagógica (UP) in Maputo and at Universidade Católica de Moçambique (UCM) at Universidade Zambeze (UNIZAMBEZE) in Beira; and (3) the data from the baseline survey underwent preliminary analysis from November 2017 to April 2018.

The survey was conducted at 6 universities, at a total of 27 faculties, surveying students from 106 different courses, in a total of 87 sessions. In all, 2,174 finalists were surveyed, consisting of 1,024 women and 1,150 men, and a total of 2,100 agreed to continue in the subsequent telephone survey phases. This resulted in significant over-sampling, in relation to the initial design. However, the success rate was varied, and the actual sample is as shown in Table 3, which also presents margins of error for each sub-sample, assuming a p of 50% and a confidence interval of 95%.

2.4 Implementation of the follow-up

In the baseline survey, we asked whether we could contact each participant over the course of the next 18 months. Of the 2,175 interviewees, 2,100 finalists agreed to be contacted. This

Table 3: Sizes of actual sub-samples and margins of error with a confidence interval of 95%

	Sub-samples			Margin of error		
Study area	H	M	HM	H	M	HM
Education	228	226	454	5.2%	5.3%	3.7%
Languages and Humanities	57	49	106	7.9%	9.9%	6.3%
Social sciences, Management and Law	347	463	810	4.2%	3.6%	2.7%
Natural sciences	244	81	325	1.3%	8.3%	3.4%
Engineering, Industry and Construction	158	37	195	5.3%	13.3%	5.5%
Agriculture	54	37	91	9.2%	12.3%	7.5%
Health and Welfare	47	105	152	11.4%	7.2%	6.2%
Services	15	26	41	20.0%	15.7%	12.4%
Total	1150	1024	2174	2.2%	2.4%	1.7%

Source: ITEEFU data.

group constitutes our follow-up sample, which we sought to contact by telephone at least once per quarter (hereafter, round). A smaller sub-group was contacted monthly but, for the purposes of this report, we consider only one observation per participant in each quarter. Table 4 shows the number of finalists we managed to interview (by telephone) per quarter during the follow-up period. It is observed that the attrition rate is low, at between 2 and 3 per cent in each round (less than 50 people) or an accumulated figure of 13% up to the final round.

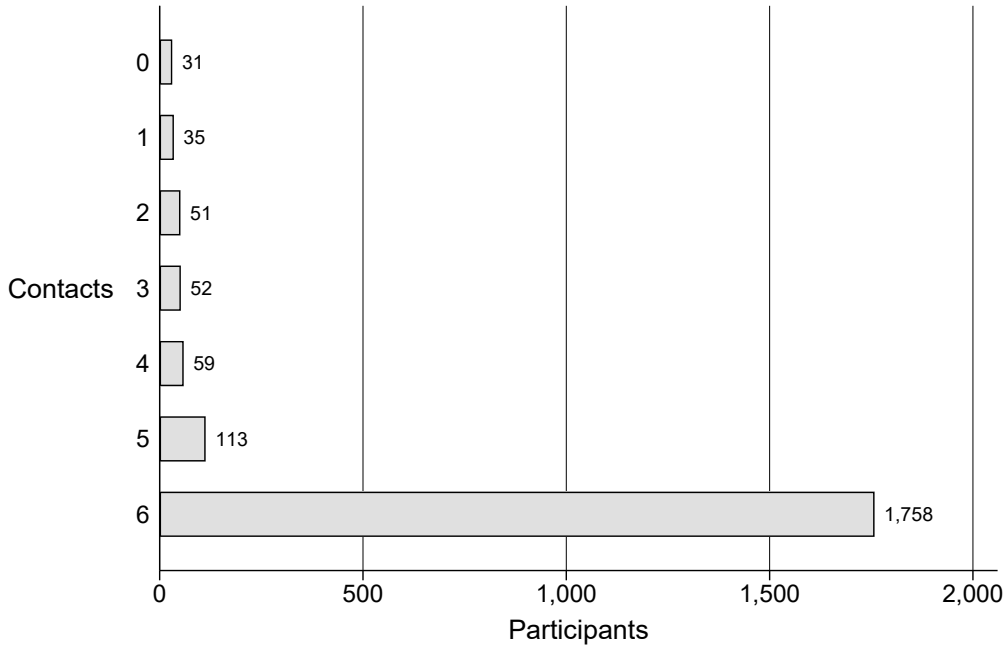
Table 4: Number of interviews conducted per follow-up round

	Dates of round		Interviews	
Round	Start	End	Number	% total
1	21.03.2018	04.06.2018	2,051	97.7
2	15.06.2018	10.09.2018	2,000	95.2
3	20.09.2018	28.11.2018	1,967	93.7
4	14.12.2018	04.03.2019	1,914	91.1
5	15.03.2019	06.06.2019	1,869	89.0
6	19.06.2019	24.09.2019	1,841	87.7

Source: ITEEFU data.

The high success rate in contacting participants during the follow-up period is shown in Figure 2. Out of the 2,100 participants, only 31 were not contactable in any round (2% of the follow-up sample). The vast majority of the follow-up sample was contacted successfully in each quarter, and 84% (1,758) of the participants were interviewed (at least) six times by telephone.

Figure 2: Number of contacts per participant during follow-up period



Source: ITEEFU data.

In comparison with other follow-up surveys conducted by telephone in similar low income contexts, our survey accordingly enjoyed a high rate of success (e.g., Demombynes et al., 2013; Dillon, 2010).

In general, although the attrition rate is low, there are some notable differences with respect to some individual characteristics recorded in the baseline survey. Table 5 compares the initial sample with the sample obtained in the last telephone round. It shows that the attrition rate was relatively higher for women (17%), finalists in social sciences (16%) and finalists at private universities (18%). Accordingly, in each follow-up round we calculate the adjustments needed for the sample weights in order to ensure that the findings from each round presented the same representativeness in terms of gender and area of studies as in the baseline. These coefficients are summarised in Table B1. They are all greater than 1 to offset the loss of observations during the follow-up period in relation to the initial follow-up sample. This procedure is valid assuming that attrition within each group (combination of study area and gender) is random. For the subsequent analysis of the follow-up (tracer) survey findings (following sections), we used these adjusted weights in each case.

Table 5: Attrition up to last follow-up round by individual characteristics

Characteristic		Sample		Attrition %
		Initial	Final	
Gender	Male	1,111	1,025	7.7
	Female	988	816	17.4
Age range	18-22	757	644	14.9
	23-25	678	622	8.3
	26-55	664	575	13.4
University location	Maputo	1,685	1,459	13.4
	Beira	414	382	7.7
Type of university	Public	1,641	1,466	10.7
	Private	458	375	18.1
Job waiting?	No	1,884	1,654	12.2
	Yes	215	187	13.0
Study area	Education	440	395	10.2
	Languages and Humanities	104	88	15.4
	Social Sciences	780	658	15.6
	Natural Sciences	311	282	9.3
	Engineering	189	173	8.5
	Agriculture	127	115	9.4
	Health	148	130	12.2
Total		2,099	1,841	12.3

Source: ITEEFU data.

3 Finalists' profile

Key messages:

- Whilst the sample for this study is representative of finalists at the largest universities in Mozambique, it is not representative of young Mozambicans in general.
- The majority of finalists come from urban families with a high level of education and steady employment (e.g. in the public sector). So, notwithstanding their higher level of education, it is already expected that the participants in the study should have better labour market opportunities than the average young person of the same age.
- In the baseline survey conducted in 2017, 8 out of every 10 participants said they intended to seek work straight after completing their studies.

Below we present some of the characteristics of the finalists, by gender, as collected in the baseline survey. As shown by Table 6, more than half the participants were men. Most (65%) were young, aged between 18 and 25 years. It may be seen that 50% and 32% of the participants come from families with secondary or vocational and higher education, respectively. Moreover, most of the finalists come from families where the most important employment position in the household is in the public sector, followed by self-employed. It is noted that there are more men than women from families where the most important job in the household is self-employed.

Eighty percent of our (baseline) sample attended universities in Maputo, and the same percentage of students were studying at public universities. When asked about their labour market experience, between 51% had completed an internship and 60% had undertaken some type of paid work, and the proportion of men was higher than that of women. In addition, close to 80% of the participants expressed interest in finding work after finishing their course while around 88% had no job waiting for them.

Table 6: Characteristics of finalists (at baseline) in follow-up sample in percentage

		Gender			
Characteristic		Male	Female	Total	Obs.
Age range	18-22	29	38	33	698
	23-25	34	29	31	659
	26-55	37	33	35	742
Married?	No	87	84	86	1,798
	Yes	13	16	14	301
Has children?	No	71	67	69	1,450
	Yes	29	33	31	649
Primary school location	Village	14	9	12	244
	Town	20	12	17	347
	City	66	79	72	1,508
Primary school Region	North	5	3	4	89
	Centre	25	19	22	469
	South	69	77	72	1,518
	Abroad	1	1	1	22
Family education	None	5	1	3	65
	Primary	16	10	14	289
	Secondary	51	50	50	1,055
	Higher	27	38	32	670
	Don't know	1	1	1	19
Family employment	Public sector	40	48	43	906
	Private sector	25	25	25	522
	Self-employed	31	24	28	589
	Don't know	4	3	4	82
University location	Maputo	80	83	81	1,708
	Beira	20	17	19	391
Type of university	Public	84	75	80	1,683
	Private	16	25	20	416
Did an internship?	No	48	49	49	1,022
	Yes	52	51	51	1,077
Has worked?	No	31	50	40	830
	Yes	69	50	60	1,269
Intends to seek work?	No	23	20	21	450
	Yes	77	80	79	1,649
Job waiting	No	88	87	88	1,839
	Yes	12	13	12	260
Total		100	100	100	2,099

Source: ITEEFU data.

4 School-to-work transitions

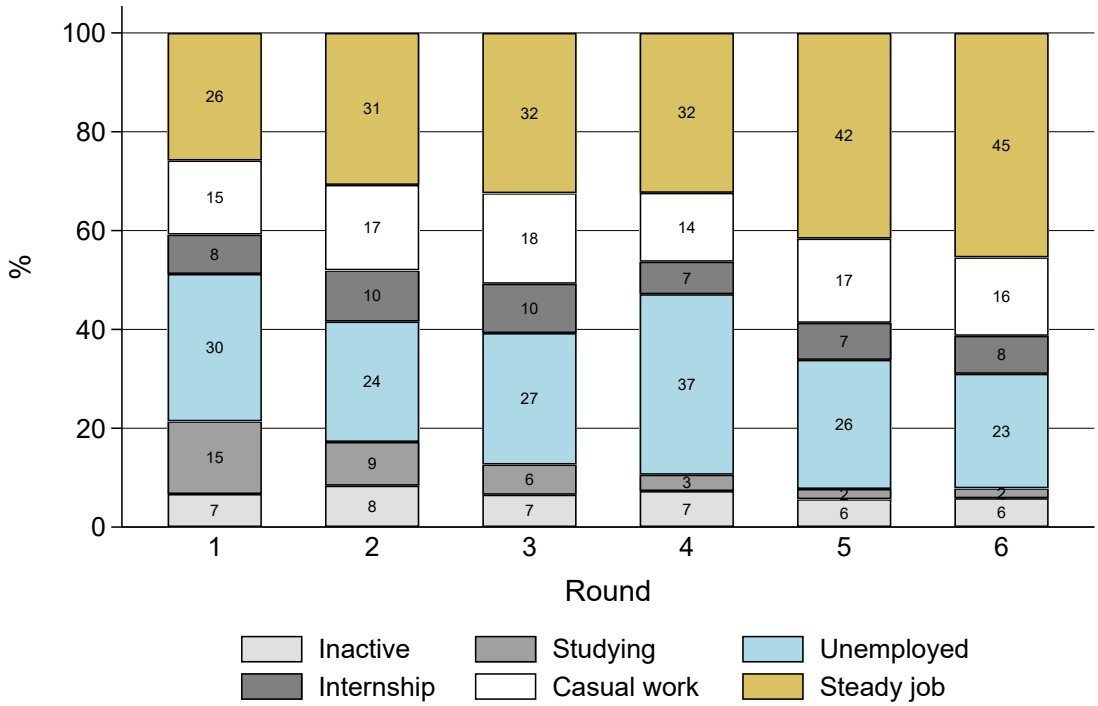
Key messages:

- The experience of finalists after the baseline survey is rather varied, with a significant number facing difficulties in finding steady work.
- In the first follow-up round (March – June 2018) only 26% had a steady job and 30% were unemployed. By the last round (June – September 2019), 45% had a steady job, 16% had casual (temporary) work and 23% were unemployed.
- The transition to work was more difficult for women compared with the men. By the last follow-up round, 33% of the women were unemployed, compared to 15% of the men; and 38% of the women had a steady job, compared with 51% of the men.
- Forty per cent of participants found work (a steady job, casual work or an internship) right at the start of the follow-up rounds. Among the rest, only 20% of the graduates found a job within six months; and another 20% took between 6 and 15 months to start working for the first time.
- There are significant differences in work transitions between areas of study. Among the participants who studied in education or health, approximately 60% had a steady job by the last round; but among those who studied social sciences or agriculture, less than 40% had found a steady job.

One of the main aims of tracing the participants over time was to understand their experiences after graduation. This section summarises the economic situation of the finalists, defined in terms of their main activity, during the follow-up period and changes between different activities over time. The economic situation of the participants was divided into 6 (mutually exclusive) categories. Those in a steady job, those with casual work, those on an internship, students, the unemployed (not working, but looking for work) and the inactive (not working or studying *and* not looking for work).

Figure 3 shows that, in the first follow-up round, 41% of the finalists already had work: 26% had a steady job and 15% casual work. A significant percentage, 15%, were still studying and 30% were unemployed.

Figure 3: Economic situation by follow-up round (%), all



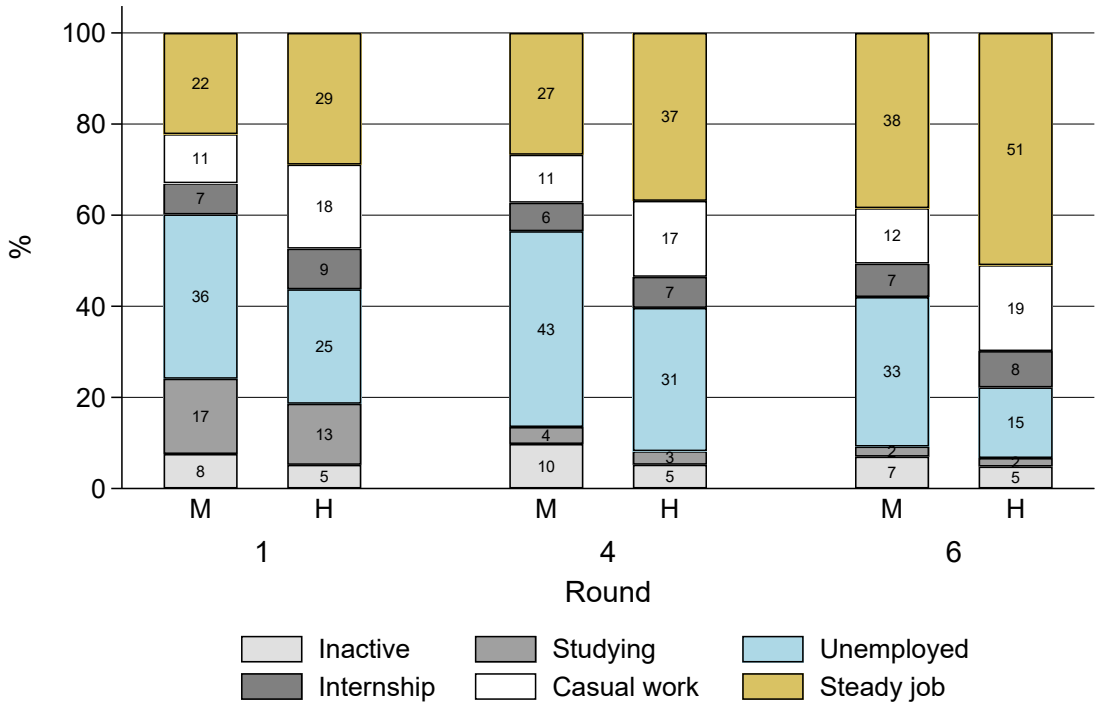
Source: ITEEFU data.

Over the course of the follow-up rounds, the proportion of finalists with a steady job increased progressively, reaching 45% in the final round. The proportion of finalists still studying evolved in the opposite direction, falling to just 2% by the last round. Likewise, the number of unemployed fell, except in the fourth round (end of the 2018 academic year and first quarter of 2019, when the highest percentage was reached, at 37%), standing at 23% at round 6. The proportion of inactive finalists remained largely stable throughout the follow-up period, as did the share doing internships or with casual work.

Female graduates move into employment at a distinctly slower pace than their male counterparts. As shown by Figure 4, in the first round the difference in the percentage of men and women with a steady job is 7 points, identical to the gender difference in the percentage of finalists with temporary employment. Whilst the gaps hold steady in temporary employment, they increase for steady jobs: 10 percentage points in round 4 and 13 points in round 6.

Figure 5 shows transitions *between* different economic situations from rounds 1 to 6. Over the period, we see that almost all the students made some sort of transition into work – i.e., only 2%

Figure 4: Economic situation by round and gender



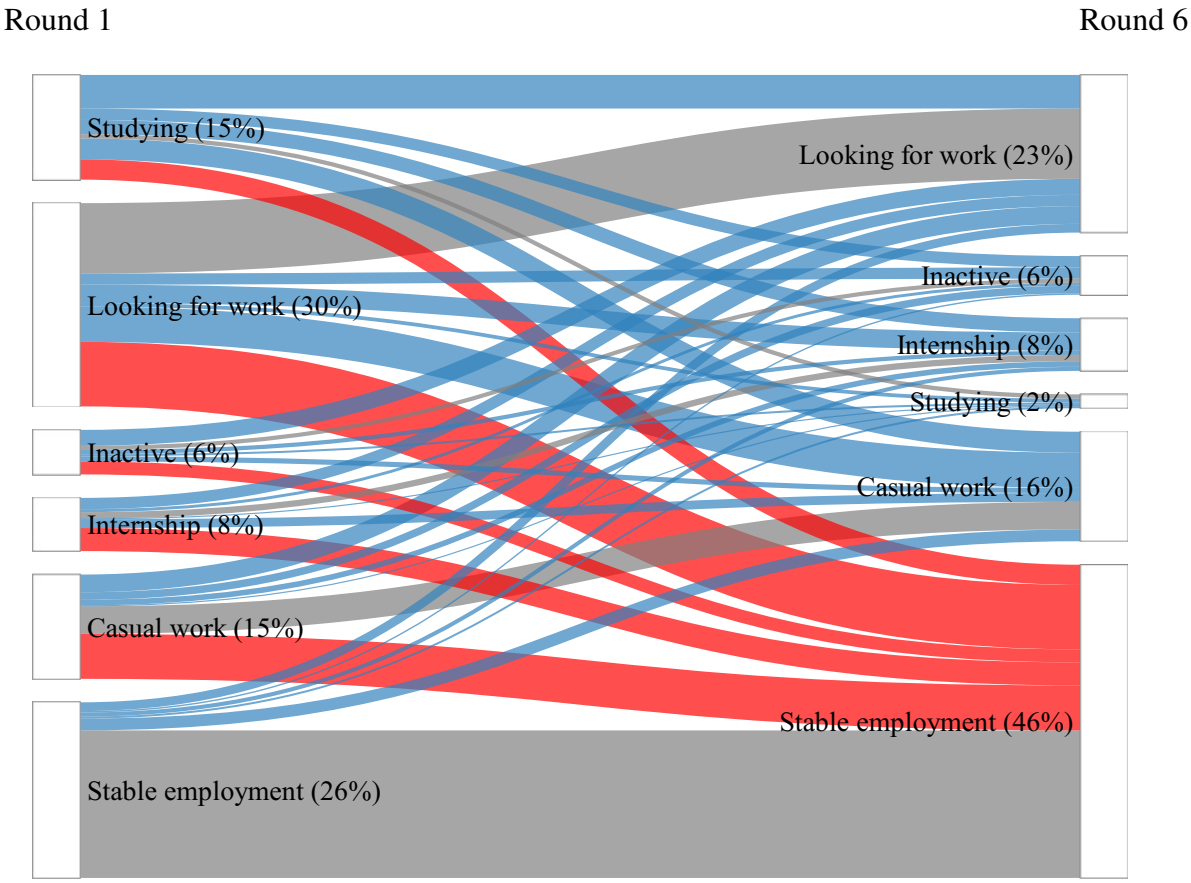
Source: ITEEFU data.

continued to study and 6% decided not to seek work or continue their studies. Whilst 26% of finalists already had a steady job at the first round, another 20% achieved this over the period. Attention is drawn to the transitions from unemployment and casual work in the first round to a steady job in the last round.

Although the percentage of finalists in casual work remained close to 15% (in the first and last follow-up round), the latter group was fed by finalists coming from a situation of unemployment as well as some others who maintained casual work between rounds 1 and 6. In addition, a significant proportion of unemployed ('looking for work') finalists in round six appear never to have had employment during the follow-up period – i.e., some unemployment is persistent.

As shown in Table 7 there is an apparent strong correlation between having a professional placement in round one, either in the form of an internship, casual work or a steady job and having work at the end of the follow-up period. Notably, 84% of the finalists who already had a steady job in round one, maintained this status, whilst 43% of the finalists who were on internships, or had casual work at the start, went on to improve their economic status.

Figure 5: Variation in economic situation between follow-up rounds 1 and 6, all



Source: ITEEFU data.

Table 7: Comparison of economic situation between follow-up rounds 1 and 6 (%), all

	Situation round 6						
↓ Situation round 1	Inactive	Studying	Unempl.	Internship	Cas. work	Steady job	Total
Inactive	9	5	36	9	12	29	100
Studying	11	4	32	14	20	19	100
Unemployed	5	2	35	9	17	32	100
Internship	6	1	21	12	17	43	100
Casual work	7	1	17	5	26	43	100
Steady job	1	1	5	2	7	84	100
Total	7	2	24	9	16	42	100

Source: ITEEFU data.

More than 60% of those on internships or working at the start of the follow-up period had employment in round six. In contrast, close to one third, 33%, of those who were inactive, studying or unemployed in round one, were unemployed at the end of the follow-up period, more than a year and a half after completing their final year of studies. Both internships and casual work thus appear to be stepping stones to work, allowing finalists to move on to a steady job later.

Figure 6 suggests that the transition to employment by male finalists is relatively positive, with significant shifts between rounds 1 and 6 from situations of unemployment, casual work or an internship to a steady job, which grows by 22 percentage points over the follow-up period. The transitions from being inactive or unemployed to casual work are also clearly positive. Significantly, at the end of the follow-up period, 70% of the male finalists had some form of work, whether casual (19%) or steady (51%).

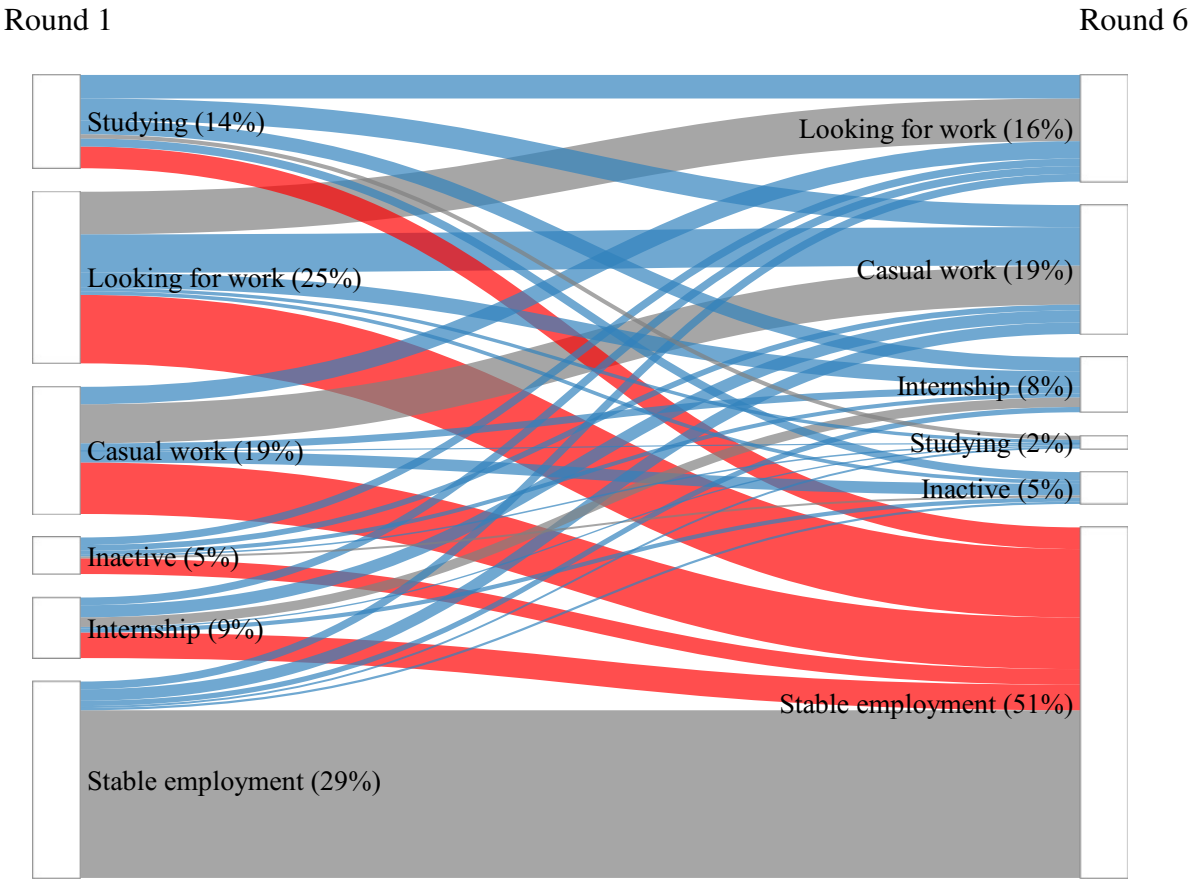
The focus on male finalists reveals even more clearly what had already been observed for the population as a whole. By way of example, it is noted that 90% of the male finalists who had a steady job in round one also had work at the end of the follow-up period. Likewise, as can be seen in Table 8, close to 65% of those who were on internships, had casual work, were unemployed or inactive in the first round, had found work in the last round, either steady (more than 40%) or temporary (between 16% and 31%). If we add professional internships, it may be said that at the end of the follow-up period, more than 70% of these finalists were engaged in a professional activity or vocational training.

Only those finalists who were late in graduating faced relative difficulties, probably due to the delay in the cycle of effective entry into the labour market. Even so, more than 60% had a steady job (23%), casual work (24%) or were on an internship (15%) in round six.

Figure 7 indicates women faced a more difficult transition into work. The proportion in steady jobs grew by only 18 percentage points from an already lower baseline fgure compared to their male peers, with inflows mainly from graduates who had been unemployed, on internships (almost half of these) or in casual work (also almost half).

However, a significant transition to unemployment is observed, both by female graduates who were studying during the first round, and by those who were originally unemployed (highlighting a high level of persistence) as well as close to half of those who were on an internship or in casual work in round one.

Figure 6: Variation in economic situation between follow-up rounds 1 and 6, men



Source: ITEEFU data.

Table 8: Comparison of economic situation between follow-up rounds 1 and 6, men (%)

	Situation round 6						
↓ Situation round 1	Inactive	Studying	Unempl.	Internship	Cas. work	Steady job	Total
Inactive	6	4	21	11	16	43	100
Studying	9	4	25	15	24	23	100
Unemployed	2	2	25	9	22	40	100
Internship	7	2	13	16	20	42	100
Casual work	9	0	14	6	31	41	100
Steady job	1	1	4	3	6	85	100
Total	6	2	17	10	20	46	100

Source: ITEEFU data.

Even though, in round six, the proportion of inactive or unemployed female graduates is greater (subtotal of 40%) than those with steady jobs (39%), the vast majority of these are looking for work – i.e., only a small number of female graduates choose to be inactive. It is notable that only 51% of women have any work, either casual or steady, at the end of the follow-up period, 19 percentage points less than their male peers.

Table 9 shows that the transition by female graduates who already had a steady job in round one is clearly positive and similar to that of men. In this group, 90% maintained their employment status, whether steady or casual. However, among the others, and in contrast to what is seen with male finalists, only female graduates who were on an internship in round one are mostly working in round six, either with casual work (10%) or a steady job (45%). Of the female graduates who were unemployed in the first round, 44% continued to seek work, whilst only 37% had casual work or a steady job at the end of the follow-up period.

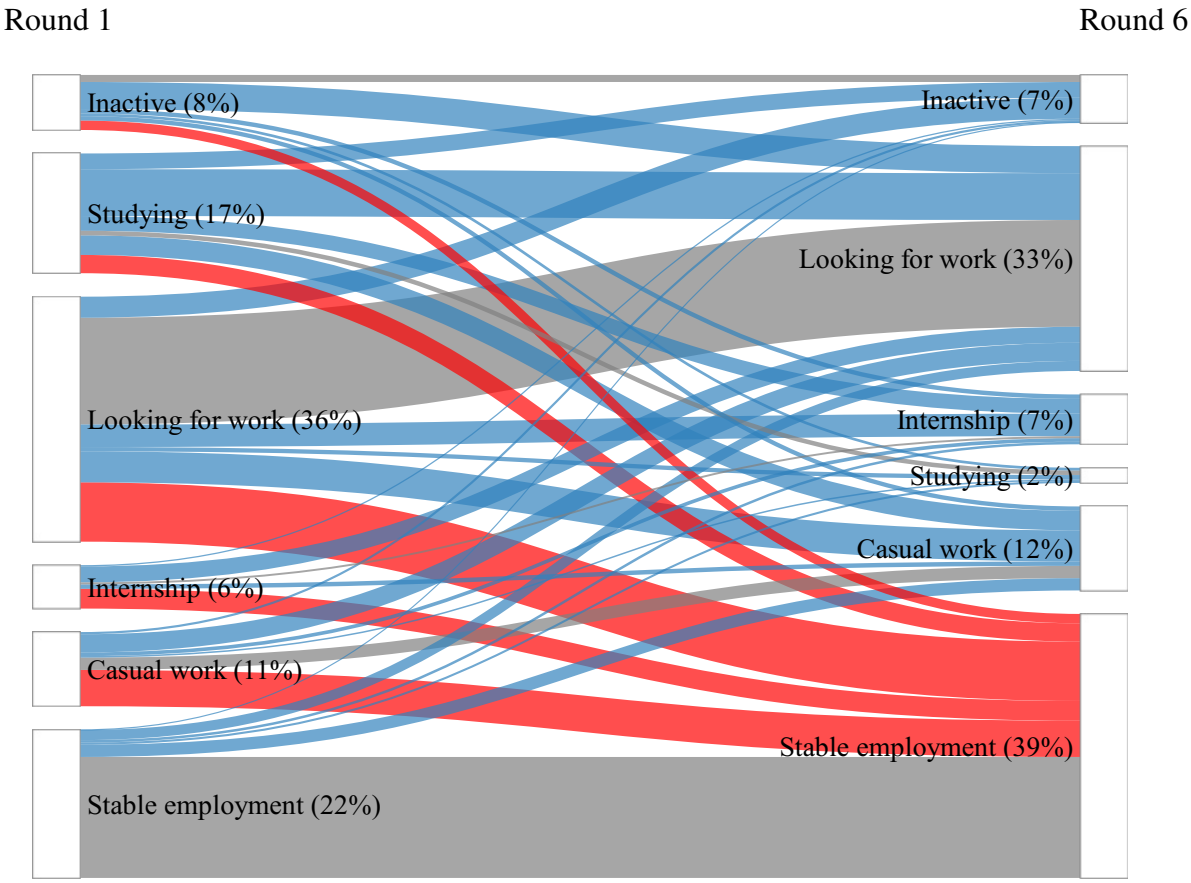
It is important to note that the vast majority of female graduates who said they were not looking for work during round one, i.e. were inactive, were actively looking for work or engaged in a professional or vocational training activity, during round six (total of 87%). However, almost half of these were unemployed (49%) in round 6 and only 33% had work or were on an internship. In the case of finalists who only graduated in 2018, only 43% were engaged in a professional activity or vocational training at the end of the follow-up period.

Table 10 reveals the different degrees of transition to work in the first round and a year and a half later (in round six) by study area. The most striking finding is that a significant group, close to 14%, were still studying at the start of the first round, but the percentage of finalists still studying at the end of the follow-up period was trivial (2%).

Courses in the areas of health and education are those that provide the greatest immediate access to work or vocational training. The same is observed at the end of the follow-up period. Although finalists from other areas, such as social and natural sciences, had a lower than average immediate transition into work, they saw this accelerate faster than for their peers. Even so, finalists in languages and humanities present transitions close to the average. Finalists from engineering and, principally, from agriculture, experienced a relatively slower transition, with less than half of agriculture graduates (48%) found casual or steady employment by the end of the follow-up period.

To a certain extent, access to vocational internships increased opportunities for finalists to start a professional activity or vocational training, in particular for finalists in agriculture and social

Figure 7: Variations in economic situation between follow-up rounds 1 and 6, women



Source: ITEEFU data.

Table 9: Comparison of economic situation between follow-up rounds 1 and 6, women (%)

	Situation round 6						
↓ Situation round 1	Inactive	Studying	Unempl.	Internship	Cas. work	Steady job	Total
Inactive	13	5	49	8	8	17	100
Studying	13	4	39	12	16	15	100
Unemployed	9	2	44	9	13	24	100
Internship	3	0	37	5	10	45	100
Casual work	3	2	24	5	17	49	100
Steady job	0	1	7	2	8	82	100
Total	7	2	33	7	12	39	100

Source: ITEEFU data.

Table 10: Economic situation in follow-up rounds 1 and 6, by study area (%)

Round	Area	Economic situation					
		Inactive	Studying	Unempl.	Internship	Cas. work	Steady job
1	Education	6	7	25	4	15	44
	Languages and Humanities	4	20	30	5	22	19
	Social Sciences	5	20	35	9	13	17
	Natural Sciences	7	18	24	16	17	18
	Engineering	9	14	28	11	19	19
	Agriculture	8	16	29	10	22	14
	Health	9	13	26	14	14	23
	All	6	15	30	8	15	26
6	Education	4	3	19	2	16	57
	Languages and Humanities	3	2	26	7	18	44
	Social Sciences	6	2	27	11	16	37
	Natural Sciences	8	3	21	10	18	41
	Engineering	9	2	27	4	11	47
	Agriculture	13	1	21	17	20	28
	Health	3	0	14	6	13	64
	All	6	2	23	8	16	45

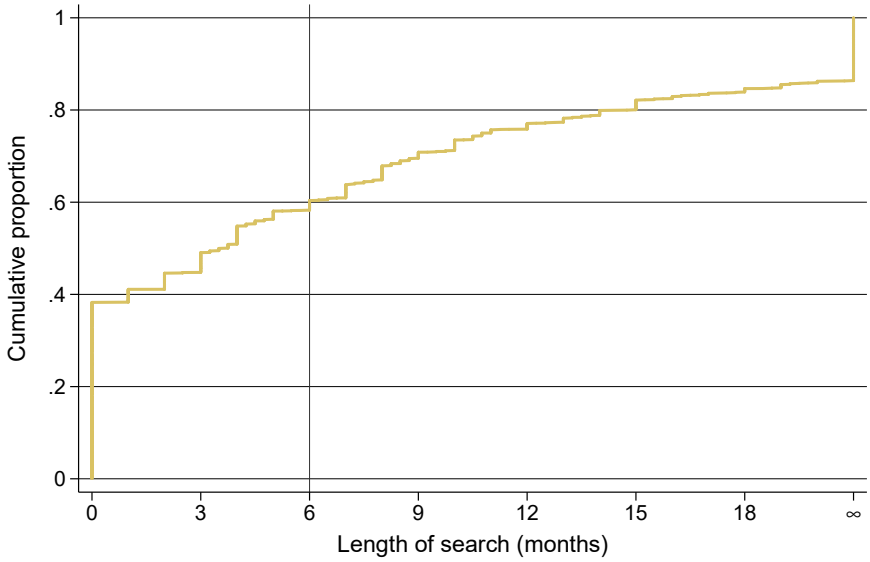
Source: ITEEFU data.

sciences. In the case of engineering finalists, there are signs of a transition from internships in the first round to steady employment in round six.

In Figure 8, we present the cumulative percentage of those finalists who were active in the labour market during the follow-up rounds (i.e. working, on internships or looking for work), by the time in months it took them to find their first job or internship. Significantly, close to 40% already had a job or found a job immediately upon completing their course. However, the pace of transition to the first job is relatively slow, and gets slower. Approximately 50% of economically active finalists made the transition to their first job within 3 months, 60% within 6 months and 75% within one year. This means that close to 1 in 4 economically active finalists, i.e. 25%, took more than a year to find their first job. And, at the end of the follow-up period, more than 15% of the finalists had still not found their first job.

Figure 9 again shows the relatively greater difficulty experienced by women in the transition to work. At the baseline, the proportion of women who had not had to wait to work is almost 10%

Figure 8: Proportion of economically active finalists by time spent looking for first job (months)



Note: the sample for this graph is all participants who were economically active during the follow-up rounds (N = 2.058); value '0' (zero) time looking indicates that the person already had a job or found work immediately on completing the course; value '∞' indicates that the person found no work.

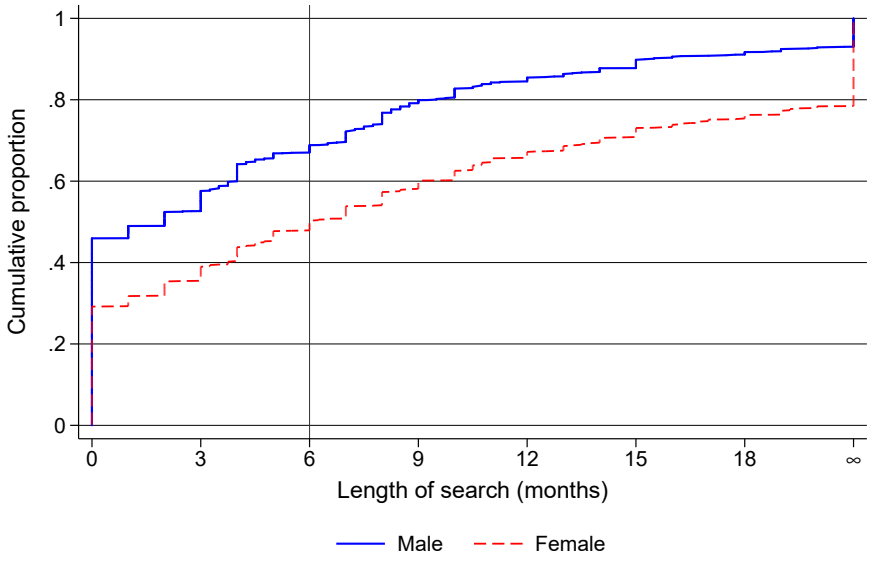
Source: ITEEFU data.

lower than for men. The growing gap between the lines in shorter waiting times also indicates that the transition for men is slightly faster than for women. The gender inequality in transition to the first job is finally seen in the notable gap at the end of the follow-up period.Here, it is noted that more than 90% of active men had found their first job, whilst less than 80% of women arrived at the same situation.

Figure 10 repeats the same analysis by area of study. It reveals large differences in the finalists' experiences of transition, depending on the area of training and gender. As noted, two areas of study present relatively high levels of employability: education and health. The transition by finalists from other study areas, such as engineering, natural sciences or, for male finalists, the area of languages and humanities, is also relatively fast. In contrast, the transition is significantly slower for those that graduated in social sciences, in agriculture and, for women, in languages and humanities.

The gender inequality in the transition to a first job is more marked among those who graduated from courses in languages and humanities (with gaps of over 40% between men and women who

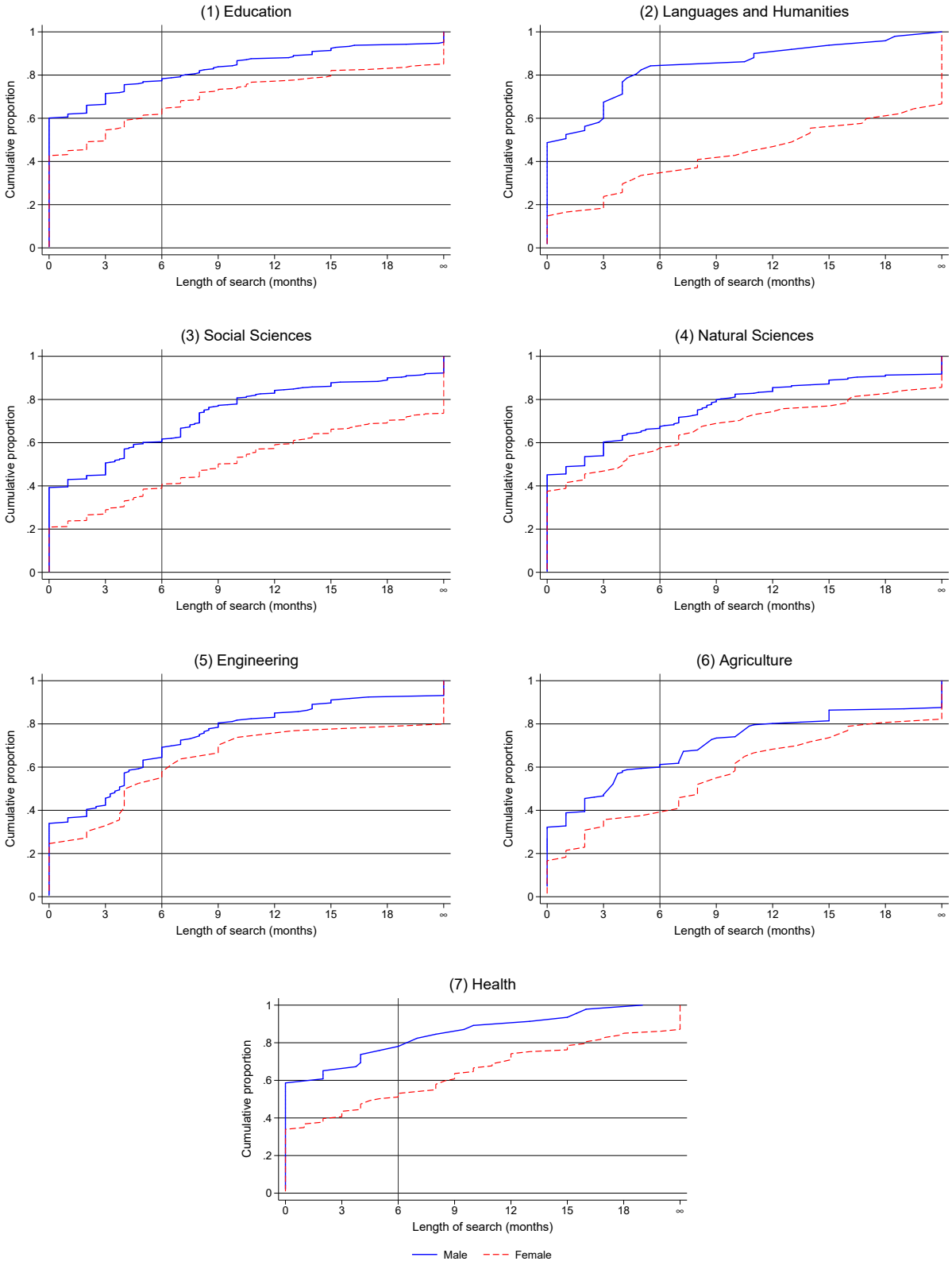
Figure 9: Proportion of economically active finalists by time spent looking for first job (months), by gender



Note: see Figure 8.
Source: ITEEFU data.

found their first job within 6 months or less), social sciences, health and, initially, agriculture. It is less marked among finalists in education, engineering and natural sciences. However, it may be noted that in no area did women find work faster than men.

Figure 10: Proportion of economically active finalists by time spent looking for first job (months), by area of study and gender



Note: see Figure 8.

Source: ITEEFU data.

5 Migratory flows

Key messages:

- University finalists show a preference for remaining in the country's large urban centres (greater Maputo and Beira).
- Whilst one of the factors in their choice of post-university place of residence is where they attended university, only 50 participants (3% of the sample) were living in the provinces of Nampula and Zambézia by September 2019, as compared to more than 1,500 living in greater Maputo.
- Finalists in the area of health are more likely to reside (and work) away from their home provinces, likely because their profession may require them to work outside the main cities in locations with great health care needs (e.g. in rural districts).

This section considers movements of participants both within and outside Mozambique. Firstly, Table 11 reveals a clear preference on the part of finalists to stay where they attended university (Maputo and Beira). More remain in greater Maputo than do in Beira: 90% and 75% of finalists from these locations, respectively. The same finding is highlighted in Figure 11, which shows that by the last round, 9 out of 10 of the finalists were living in either greater Maputo or Sofala. Obviously, this finding may be due to the design of the sample, which focused on the university campuses in Maputo and Sofala. Nonetheless, around 32% of the students in the baseline survey (Jones et al., 2018) said they had moved to attend university; however, by the last round, only 2% (Table 7) of the participants said they were continuing to study. This suggests that most of these students had not returned to their home provinces; in other words, few participants opted to leave greater Maputo or Sofala, even if these provinces were not originally their home.

As shown by Figure 12, the findings concerning return to the province where they attended primary school by areas of study and gender are mixed. A larger proportion of health finalists find work outside the province in which they attended primary school, in relation to those from other areas of study. This finding probably reflects the public policy of sending newly trained doctors to the districts.

In the areas of study of health and engineering, 48% and 71% of women live in the same province as their primary school, as against 42% and 66% of men, respectively. In the other

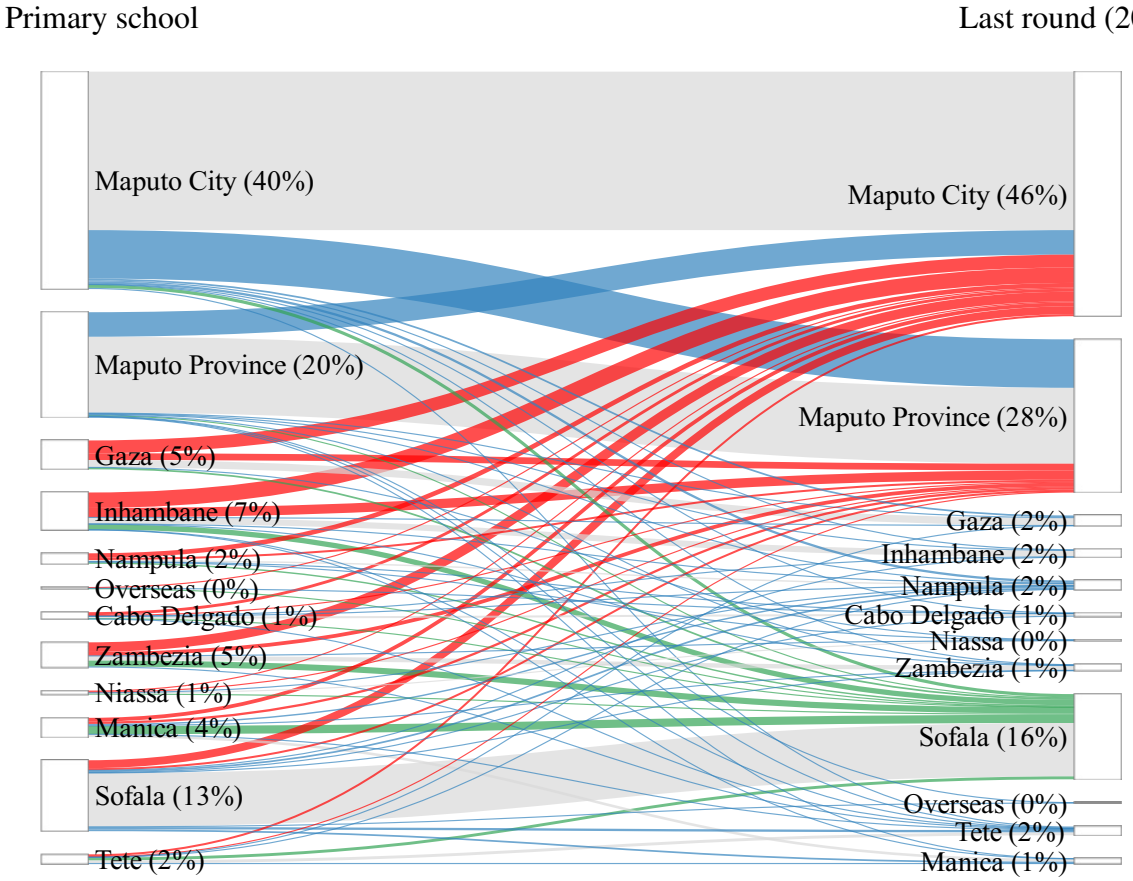
Table 11: Place of residence in last follow-up round, by university location (2017)

	Location of university					
	Maputo		Beira		Total	
Residence (Round 6)	Obs.	%	Obs.	%	Obs.	%
Cabo Delgado	10	0.7	4	1.2	14	0.8
Estrangeiro	2	0.2	1	0.4	4	0.2
Gaza	35	2.4	4	1.1	39	2.1
Inhambane	22	1.5	7	2.0	29	1.6
Manica	4	0.3	13	3.6	17	0.9
Maputo Cidade	806	54.5	18	5.1	825	44.8
Maputo Província	545	36.8	2	0.4	547	29.7
Nampula	9	0.6	14	3.9	23	1.3
Niassa	4	0.2	3	0.7	6	0.3
Sofala	12	0.8	271	75.0	284	15.4
Tete	10	0.7	18	4.9	28	1.5
Zambezia	20	1.4	6	1.7	27	1.4
Total	1,479	100.0	362	100.0	1,841	100.0

Source: ITEEFU data.

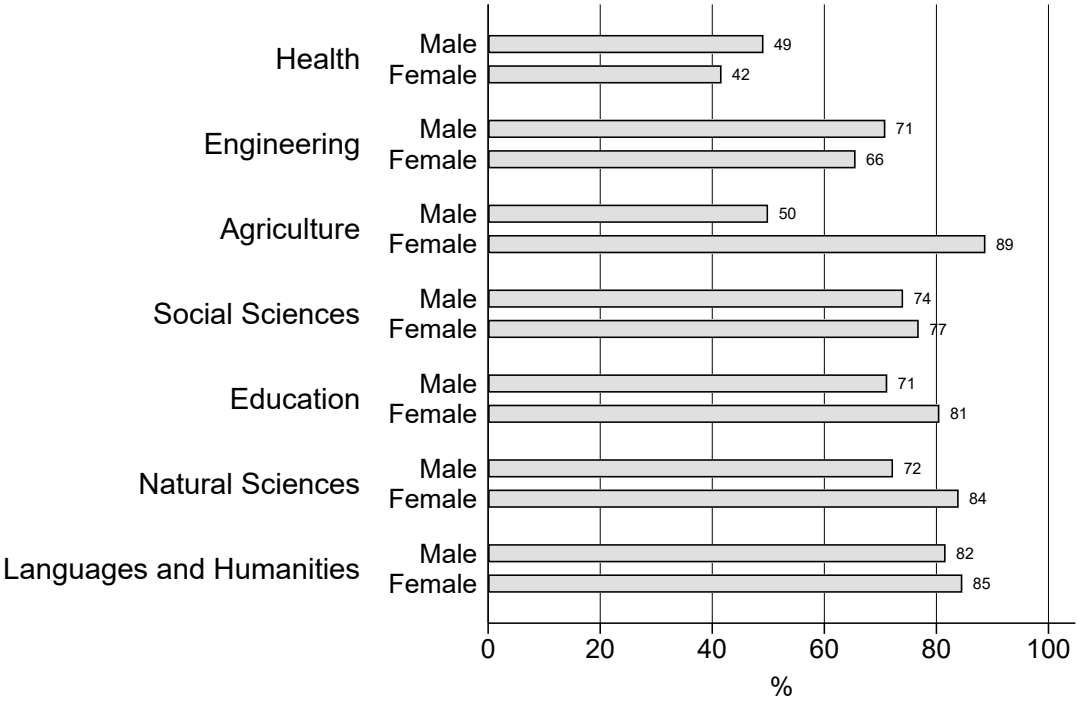
areas of study, there is a relatively smaller proportion of men who live in the province where they attended primary school in relation to women, most notably in the areas of agriculture, where 50% of men live in the same province as their primary school, as against 89% of women. This evidence suggests that the opportunities for graduates outside the large cities are generally non-existent or unattractive.

Figure 11: Province where attended primary school vs. province of residence in 2019



Source: ITEEFU data.

Figure 12: Proportion of participants in last round living in same province as their primary school



Source: ITEEFU data.

6 Type of work

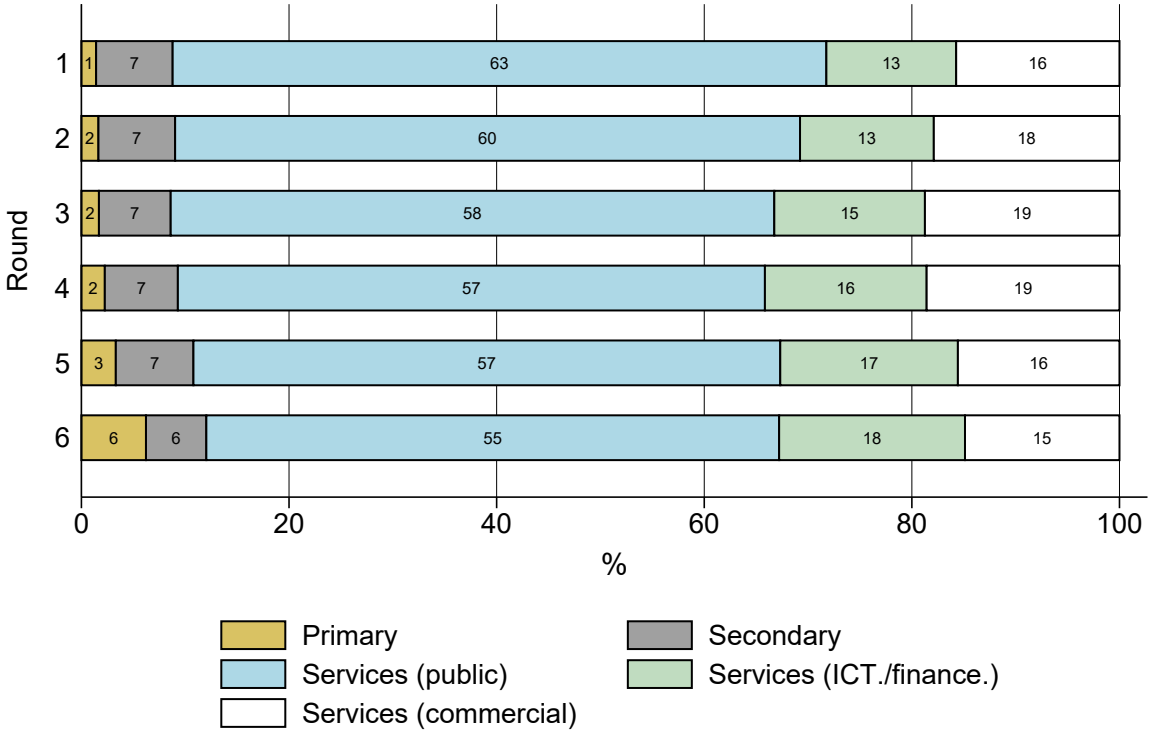
Key messages:

- Among the finalists who found work, more than 1 in 2 are in 'public' services, such as education and health.
- Approximately, only 1 in 10 of the finalists found work in primary or secondary activities such as agriculture, extractive industries, manufacturing or construction.
- The greater prevalence of finalists working in 'public' services does not match the initial plans asserted in responses to the baseline survey. Only 2 in 3 of the participants working in 'public' services (in their most recent observed employment) had declared a preference for this sector.
- Self-employment and employment in a family business is not very frequent. In the first round, 21% of participants were self-employed or working in a family business; by the last round, only 13% were employed on this basis.
- Of the employer organisations, private companies represent the largest share, employing approximately 50% of all finalists in work.

This section focuses on the type of work done by the participants. Figure 13 illustrates the (broad) sector of work over the course of the follow-up rounds. The first thing that becomes clear is the predominance of the tertiary sector (services), which is where almost the majority found their first and last job. By the date of the end of the follow-up period, more than half were employed in services with a public character (e.g., relating to education, health or other socially-oriented activities and not only in government) (55%) and only 12% were in the primary and secondary sectors.

The same figure suggests interesting dynamics in terms of the absorption capacity of different sectors. Whilst the industrial sector, public and commercial services had relatively faster initial absorption levels, they gradually lost some ground to the primary sector and to information and financial services over time. This dynamic is particularly evident in public services (from 63% of jobs in round one to 55% in round six) and in financial services (from 13% to 18%, over the follow-up period).

Figure 13: Employment sector by round (%)

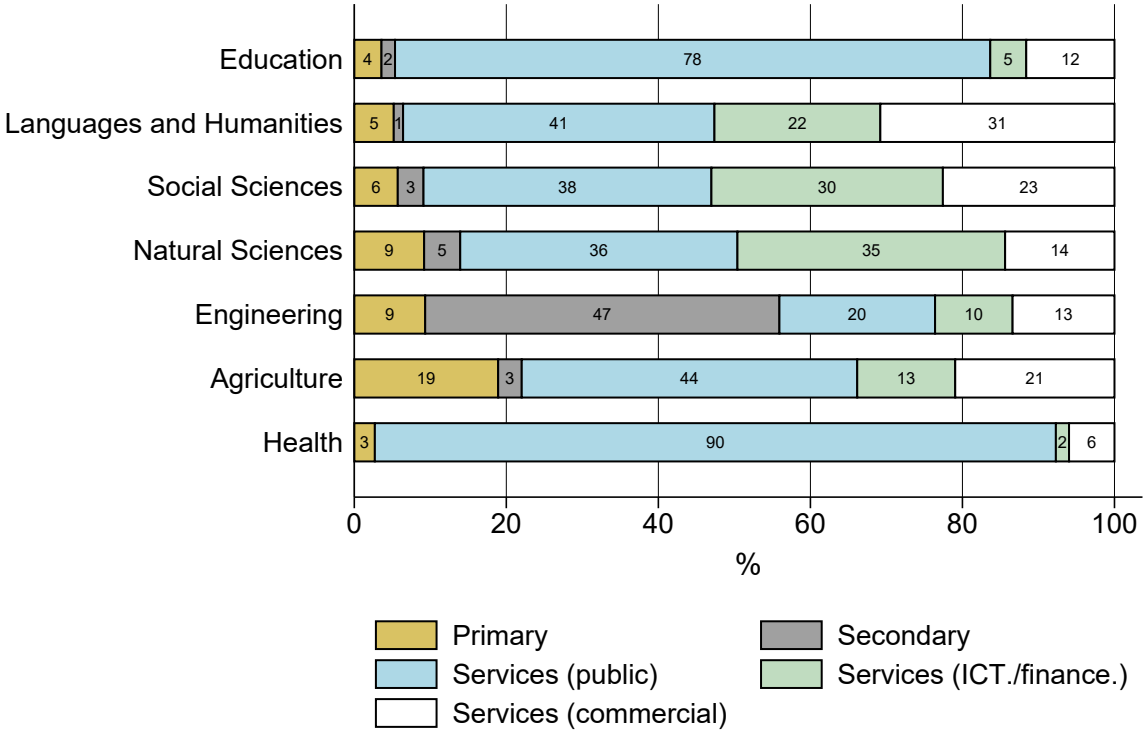


Note: the sample for this graph relates to participants who reported they were in work, by round.
Source: ITEEFU data.

It is clear from Figure 14, which focuses on the last employment position of the participants, that the different training areas led the finalists to different economic sectors. Unsurprisingly, a large proportion (nearly all) of graduates in education and health find employment in public-type services. Likewise, it is no surprise that graduates in languages, humanities and social sciences found more jobs in service sectors in general.

Despite the high proportion of engineering graduates who found work in the secondary sector (almost half, 47%), it is rather surprising this proportion is not higher. Similarly, it might be expected that the secondary sector would employ a larger proportion of finalists from natural sciences, who instead found more employment in public services (particularly in education, as shown in Appendix Table B2) and in the financial sector. Rather more surprising is the fact that the proportion of graduates in the field of agriculture working in the primary sector (19%) is smaller than those who found work in public services (44%, in particular in education) as well as commercial services (21%). For more specific information, by gender and with greater detail

Figure 14: Economic sector in last reported job, by area of study (%)



Note: the sample for this graph relates to the last employment position/job and sector (and not necessarily the last round) reported by each participant N =1.571 .

Source: ITEEFU data.

in relation to sectors of the economy, we recommend reading Appendix Tables B2 to B5.

Table 12, provides a more detailed breakdown of the profile of finalists in their last employment position by sector. The predominance of the service sector is even greater for women. Specifically, there is a greater relative proportion of women in commercial services (e.g. retail in particular; see Table B5), when compared with that of men, offset by a smaller female presence in the primary and secondary sectors.

There are also suggestions of generational change. Younger finalists, and unmarried finalists, are less represented in public services and more in private services, with a particular concentration of younger finalists in information, communication and financial services. Although there are no differences based on university location, it was found that finalists who now live in Manica and Tete provinces are better represented in the primary and secondary sectors than the average, whilst public services absorbed very nearly all the finalists now living in the provinces of Cabo

Table 12: Economic sector in last reported job, by individual characteristics (%)

			Services		
	Primary	Secondary	Public	Inform./fin	Comm.
Gender:					
Male	7	8	53	19	13
Female	4	4	52	17	23
Faixa etária:					
18-22	6	7	41	26	19
23-25	7	8	50	17	18
26-55	5	4	65	11	15
Married?:					
No	6	7	49	20	18
Yes	3	3	74	10	10
Location of university:					
Maputo	6	6	53	18	18
Beira	6	8	51	19	15
University type:					
Public	6	6	55	16	17
Private	5	6	46	28	16
Província de residência:					
Abroad	0	0	0	0	100
Cabo Delgado	7	5	87	0	0
Gaza	5	3	72	11	9
Inhambane	2	6	75	7	10
Manica	20	13	34	13	20
Maputo Cidade	5	7	48	20	20
Maputo Province	6	4	57	17	17
Nampula	2	4	58	14	22
Niassa	0	0	96	4	0
Sofala	6	9	49	22	14
Tete	13	10	63	0	14
Zambezia	16	3	80	1	0
Total	6	6	53	18	17

Note: the sample for this graph relates to the last employment position/job and sector (and not necessarily the last round) reported by each participant N =1.571 ; each line adds up to 100%.

Source: ITEEFU data.

Table 13: Preferred sector of employment (at baseline) vs. actual, in last round observed (%)

Actual sector →			Services			
Preferred sector ↓	Primary	Secondary	Public	Inform./fin	Comm.	Total
(a) Subtotal by preferred sector (lines):						
Primary	21	4	40	15	20	100
Secondary	8	37	30	10	15	100
Services (public)	4	2	72	8	14	100
Services (ICT./finance.)	4	5	34	37	19	100
Services (commercial)	9	7	36	30	18	100
Total	6	6	53	18	17	100
(b) Subtotal by actual sector (lines):						
Primary	27	6	6	6	10	8
Secondary	9	47	4	4	7	7
Services (public)	33	16	68	23	44	50
Services (ICT./finance.)	19	21	17	53	30	26
Services (commercial)	12	10	6	14	10	9
Total	100	100	100	100	100	100

Note: the sample for this table relates to the last employment position/job reported by each participant (who reported preferred employment/job at baseline, N = 1,429.
Source: ITEEFU data.

Delgado, Gaza, Inhambane, Niassa and Zambézia. Those living in Maputo Province and City and in Sofala present a breakdown closer to the average.

Table 13 provides information on the degree to which finalists realised their employment expectations, as observed at the baseline. The first point that emerges is that only among finalists aiming for public services did the majority (72%) find work in their desired sector. In general, there was a greater transition to services, in particular to public services, information communication technology (ICT) and financial services, than would have occurred had the finalists' preferences been realised.

Panel (b) in the same table shows that, in their last position, only close to a third of finalists employed in the primary sector (27%) had this as their initial preference, and the majority would have preferred to work in the service sector. Close to half the finalists employed in the secondary sector (47%) preferred to work in that sector, and almost 3 in 4 finalists employed in the public services sector (68%) had that preference. More than half the finalists placed in

the ICT and financial services sector had chosen these as their preferences. The commercial services sub-sector is that which employs the smallest proportion of finalists who would have preferred it – receiving in particular finalists that would have preferred to work in other types of services. It is apparent, therefore, that private commercial services may represent a residual type of work, being a sub-sector where the participants managed to find some type of employment, even if not in their desired area.

Figure 15 shifts the analysis from sector to the type of employer. It emerges here that, whilst public administration (with more than 35%) and self-employment or employment in a family business (more than 15%) were most significant in immediate employment, over the follow-up period private companies became the main type of employer (rising from 31% to 47% of jobs secured by the finalists). Employment in non-governmental organisations remained that which absorbed the smallest proportion of finalists

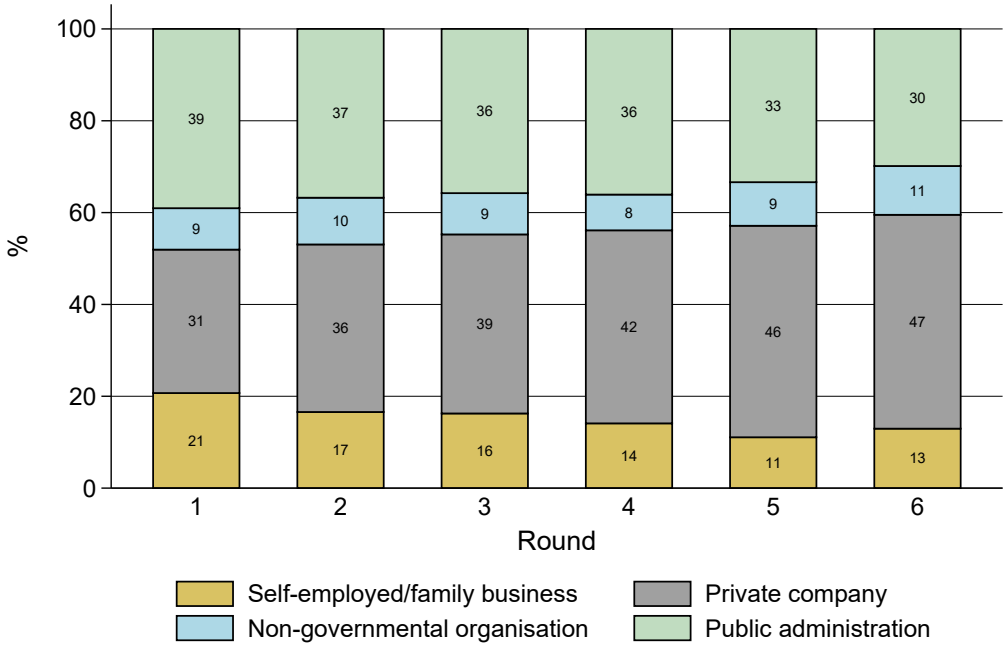
Figure 16 adds the relationship between the area of study and the type of employer (in the last employment position). This highlights the prevalence of the private sector, and private companies in particular, in providing employment for finalists from different areas of study. Even finalists from the education sector mostly found work outside the public sector. The only exception to this is the health sector.

Non-governmental organisations appear to only attract proportions of some significance from graduates in natural sciences, health (11% in both cases), social sciences (14%) and agriculture (15%). The significant proportion of self-employment and employment in a family business among finalists in languages and humanities (29%, being 10 percentage points or more above any other area of study), combined with the high rate of unemployment at the end of round six, suggests that these finalists have a degree of difficulty in finding jobs on the market.

Table 14 confirms that the private sector, including both self-employment (16%) and jobs in private companies (45%), is the dominant employer for university finalists, without gender differences. This reality is due, in particular, to the placement of younger finalists aged under 25 years, whilst older (and married) finalists mostly found work in public administration. The importance of the public sector is also greater (although still not accounting on average for the majority) among finalists from public universities and those that studied at university campuses in Maputo.

The public sector is only the main employer for finalists now living in Zambézia (58%), in Cabo Delgado (68%), Gaza and Inhabane (approximately 75%) and Niassa (96%). Salaried jobs in

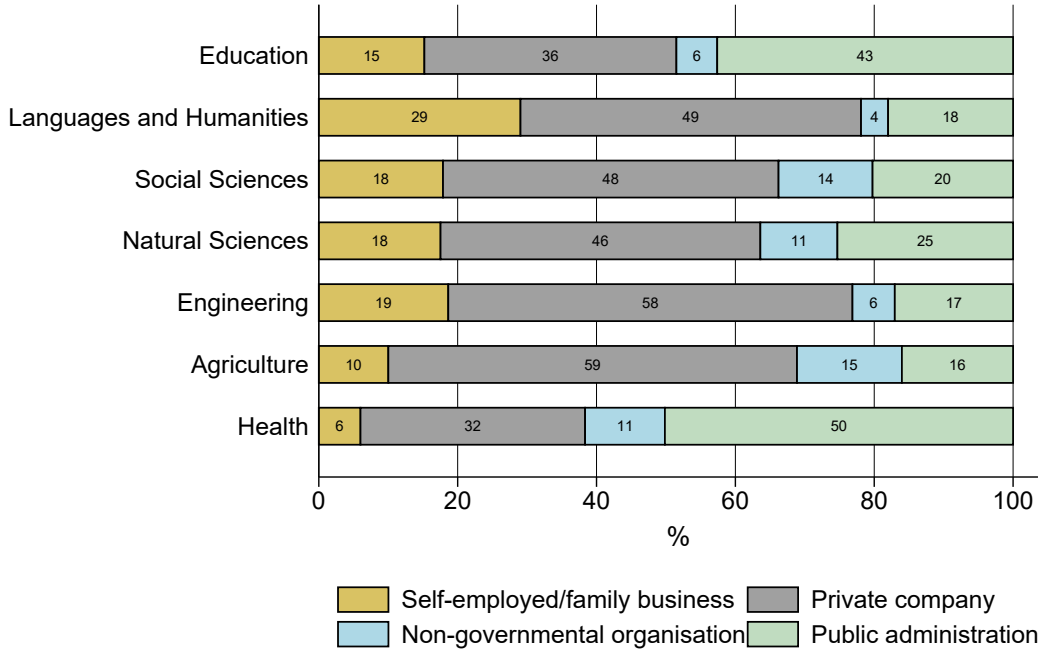
Figure 15: Type of employer (organisation), by round (%)



Note: the sample for this graph relates to participants who reported they were in work and their employer, by round.

Source: ITEEFU data.

Figure 16: Type of employer in last job, by area of study (%)



Note: the sample for this graph relates to the last employment position/job and employer (and not necessarily the last round) reported by each participant N =1.571.

Source: ITEEFU data.

the private sector represent close to the majority in Maputo Province (42%), Tete (46%) and Maputo City (48%), and the majority for finalists living in Sofala (51%) and Manica (54%). The NGO sector only has significant weight in the provinces of Sofala and Manica (approximately 17%), Cabo Delgado (20%) and Nampula (27%). Self-employment among the finalists is only significant in Maputo Province and Sofala (15%), Tete (17%) and Maputo City (19%).

Table 15 shows that only among those graduates who preferred a salaried job in a private company has the majority (52%) achieved this preference. Indeed, it may be noted that, although public administration was the sector sought by 44% of finalists and employment in private companies by 34%, at the end of the follow-up period, only 29% were employed in public administration and 45% in private companies.

Even so, as may be seen in panel (b) of Table 15, the majority of graduates employed in the public sector preferred to have jobs in that sector. It is noteworthy that, although the number of finalists who preferred enterprise (in 2017) is almost equal to those who are actually working in their own business (in their last employment position), the vast majority of the latter would have preferred a salaried job (74%). Indeed, among the finalists who preferred to have their own business, a salaried job in a private company was the most common outcome, at 47% (see panel a).

Table 14: Type of employer (organisation) in last job, by individual characteristics (%)

	Own business	Private company	NGO	Public admin.
Gender:				
Male	16	45	10	29
Female	17	44	10	29
Faixa etária:				
18-22	15	55	15	16
23-25	18	57	11	13
26-55	15	26	5	53
Married?:				
No	17	49	12	23
Yes	11	21	3	65
Location of university:				
Maputo	17	44	9	30
Beira	14	48	15	22
University type:				
Public	16	43	10	30
Private	15	51	9	25
Província de residência:				
Abroad	0	100	0	0
Cabo Delgado	0	13	20	68
Gaza	5	9	12	74
Inhambane	10	15	0	75
Manica	10	54	17	19
Maputo Cidade	19	48	11	22
Maputo Province	15	42	6	37
Nampula	8	34	27	31
Niassa	0	4	0	96
Sofala	15	51	16	17
Tete	17	46	9	29
Zambezia	3	25	14	58
Total	16	45	10	29

Note: the sample for this graph relates to the last employment position/job and employer (and not necessarily the last round) reported by each participant N = 1,571; each line adds up to 100%.

Source: ITEEFU data.

Table 15: Preferred type of employer (at baseline) vs. actual, in last job (%)

	Actual				
Preferido ↓	Own	Private	NGO	Public	Total
(a) By preferred employer:					
Self-employed/family business	23	47	8	22	100
Private company	13	52	11	24	100
Non-governmental organisation	12	43	22	22	100
Public administration	14	39	9	39	100
Total	16	45	10	29	100
(b) By actual employer:					
Self-employed/family business	26	18	13	12	17
Private company	30	39	37	26	34
Non-governmental organisation	4	5	12	4	5
Public administration	40	39	37	57	44
Total	100	100	100	100	100

Note: this table refers to the last employment position/job recorded for each participant, N = 1,429.

Source: ITEEFU data.

7 Job-seeking strategies

Key messages:

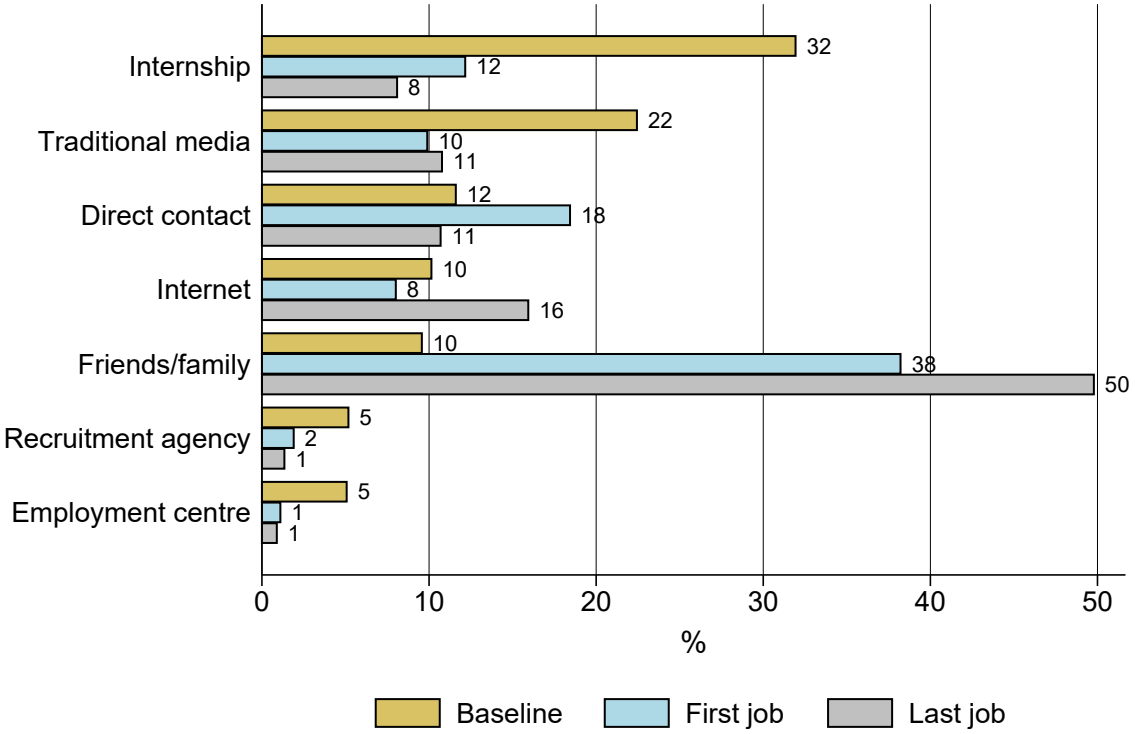
- A diverse range of strategies are used to find jobs.
- The job seeking strategy used most successfully by university finalists is contacts through friends and family members. In their first job, 38% of working participants found the job through help from friends and family members; and in their last employment position, 50% of working participants had used this approach.
- The internet (including social media) is gaining in importance as a way of finding jobs. For example, for most areas of study, the internet was used more than traditional media channels (e.g. newspapers) to find their most recent job.
- The sale of vacancies by middlemen, by which job applicants have to pay in order to take up a job offer, is a significant phenomenon for finalists in Mozambique. Approximately 15% of jobs were sold, at an average cost of 10,000 MZN (170 USD) each. This phenomenon is much more frequent in the commercial services sector and less so in the public sector.

Over the course of the survey, we investigated the job-seeking strategies in use, comparing the strategies envisaged (at baseline) against those actually used to find work. Figure 17 summarises the proportion of participants who indicate the use of various strategies at different times. A large difference can be seen between the profile of strategies that the finalists thought they would use to find work and that which proved most effective.

The figure shows that, in the baseline survey, an internship was the path through which 32% of the finalists hoped to find a job. However, it only resulted in their first job for 12% and in their last job for 8% of those who changed job during the follow-up period (in other words, the last jobs here are only those that differ from the first). Likewise, the media (radio, TV and newspapers) led a smaller proportion of finalists to jobs (approximately 10%) than the proportion that expected to find their job in this way (22%). Recruitment agencies and job centres were also less effective than expected.

In contrast, it was direct contacts and, mainly, friends and family, that resulted in proportions

Figure 17: job-seeking strategies (%)



Note: the sample for this graph is N = 1,783, refers to all participants who reported at least one job; the yellow bar ('Baseline') refers to the participants' expectations in the baseline survey; the grey bar refers to the participants who also reported another (last) job (N = 794); 'Media' includes radio, TV and newspapers.

Source: ITEEFU data.

of jobs much higher than the average expectations of the finalists. It is noteworthy that friends and family were the strategy that led to 50% of new jobs among those who changed jobs over the period. The internet also proved more effective than expected in finding a second job. This suggests that, whilst at the baseline formal and transparent means of finding work were what they most expected, in reality, informal means, based on personal relations, were dominant.

Table 16 shows some changes in the effectiveness of job-seeking strategies between first and last jobs (in this case, 794 out of 1,793 reporting any job changed job during the follow-up period). As also suggested by the previous graph, recourse to family and friends and to the internet became more important, in a relatively even manner across all the sample subgroups.

As reported above, more formal job-seeking strategies (media, internship, internet and others, including job centres and employment agencies) were in the minority on average. For the first

job, the subtotal was 43%, and then lost ground for those who changed jobs over the period (subtotal fell to 40%). Even so, they were close to representing a majority in the first job of finalists in social sciences (42%), education (47%) and natural sciences (48%), and were the majority approach for health finalists (51%).

The predominantly informal nature of effective job-seeking strategies suggests that there is significant room for growth in formal strategies. We should note here the relative effectiveness of the internet, particular as a strategy for changing jobs.

Another strategy for finding a (better) job is obtaining additional qualifications. Table 17 confirms this hypothesis. A significant slice of the university finalists sought to improve their chances in the labour market by attending a technical-vocational course. This choice is clearer among finalists looking for their first job or seeking to change jobs. It is also appreciably more visible among men, younger finalists, those that attended public universities and those in casual work.

It should be no surprise that health finalists, with a high rate of rapid placement, make less use of this strategy of improving qualifications or even obtaining fresh qualifications. However, this was a relatively more popular course of action for finalists in social sciences (18%), agriculture (20%) and natural sciences (23%), suggesting a degree of difficulty in finding a job on the basis only of the knowledge, skills and recognition acquired from their courses in these areas.

Table 18 refers to an informal practice through which intermediaries provide a bridge between jon seekers and job positions. We estimate the prevalence of this practice in relation to the number of new job situations reported during the follow-up period. As some of the participants changed job over this period, the number of observations here consists of the 2,273 new jobs obtained, in relation to 1,569 finalists who found work between rounds one and six, inclusive.

A first indication of the practice known colloquially as ‘sale of vacancies’ or ’sale of jobs’ is that there were 350 cases (15.4% of the 2,273 jobs secured) in which the finalists were faced with a request to pay for the vacancy they wished to secure. The median value of the “price” for the vacancy was 10,000 Meticais (approx. 170 USD), which means that, for half of those from whom payment was sought, the value was greater than 10,000 Meticais. It may be noted that in 8 of 16 cases of employment in the primary sector, where a price was asked for the vacancy, the value was in excess of 20,000 Meticais (approx. 340 USD).

It is of note that the prevalence of this practice is greater for those finding work outside their area

Table 16: job-seeking strategies used (%)

	Strategy used					
	Media	Direct	Internship	Internet	Friends/Fam.	Other
(a) First job:						
Gender:						
Female	9	18	15	8	38	12
Male	11	19	10	8	38	14
University type:						
Public	11	19	11	8	38	14
Private	6	15	17	10	41	11
Study area:						
Education	14	19	13	4	34	16
Languages and Humanities	8	24	6	9	40	13
Social Sciences	9	16	11	11	42	11
Natural Sciences	3	18	13	11	34	21
Engineering	4	26	15	4	35	16
Agriculture	5	20	5	14	51	5
Health	10	23	20	9	27	12
Total	10	18	12	8	38	13
(b) Last job:						
Gender:						
Female	8	13	11	14	51	3
Male	12	9	6	17	49	6
University type:						
Public	10	11	7	17	50	5
Private	12	10	12	13	50	3
Study area:						
Education	11	17	7	5	54	6
Languages and Humanities	8	4	8	21	48	12
Social Sciences	8	9	7	20	51	5
Natural Sciences	6	10	7	12	62	2
Engineering	8	11	7	14	54	6
Agriculture	11	4	18	31	35	1
Health	27	12	8	13	38	3
Total	11	11	8	16	50	5

Note: the sample for panel (a), N = 1,783, refers to participants who reported at least one job; in panel (b) the sample is, N = 794, referring to the participants who reported a last job (not the same as the first); 'Media' includes radio, TV and newspapers; 'Direct' is direct contact with employers; 'Other' includes recruitment agencies, job centres, own business and unspecified; in each panel the sum of each line is 100%.

Source: ITEEFU data.

Table 17: Percentage of participants attending technical-vocation course

	Looking for (other) job?		
	Nao	Sim	Total
Gender:			
Female	11	16	14
Male	14	19	18
Total	13	18	16
Faixa etária:			
18-22	17	18	18
23-25	18	20	19
26-55	8	15	12
Total	13	18	16
University type:			
Public	13	19	17
Private	12	14	14
Total	13	18	16
Study area:			
Education	11	16	14
Languages and Humanities	16	13	14
Social Sciences	15	19	18
Natural Sciences	23	23	23
Engineering	12	16	15
Agriculture	19	20	20
Health	8	11	10
Total	13	18	16
Economic situation:			
Unemployed		16	16
Internship	18	17	17
Casual work	13	22	20
Steady job	12	18	15
Total	13	18	16

Note: the sample includes only economically active participants (e.g. unemployed or working); it covers all rounds, N = 10.081.

Source: ITEEFU data.

of training, such as languages (19.6%) and agriculture (22.7%), but it is also higher than average in relation to finalists in education (16.6%) and social sciences (15.5%). It is particularly high for jobs secured in the commercial services sector (26.3%).

Lastly, it is necessary to clarify that the aforementioned "sale of jobs" has nothing to do with formal employment brokerage by agencies or job centres. As may be seen in Table 17, these channels were only used in securing 3% of first jobs and 2% of last jobs, percentages much lower than those presented in Table 18. In other words, the latter refers to informal, private charges on the employment of graduates. It is difficult to say that they relate to a fair reward for a service offered openly and transparently in the labour market. Moreover, these practices may put jobs out of reach for people who are best suited for the position if they consider it unfair to have to pay for the vacancy, insofar as the job selling system is blind to the merit and skills of the job applicants.

Table 18: Experience of job selling

	Obs. (N)	Request to pay for vacancy (%)	Price of vacancy (MZN)
Gender:			
Female	910	14	8,000
Male	1,363	17	10,000
Faixa etária:			
18-22	849	11	15,000
23-25	748	20	10,000
26-55	676	16	10,000
Location of university:			
Maputo	1,792	17	10,000
Beira	481	10	20,000
Study area:			
Education	452	17	10,000
Languages and Humanities	111	20	5,000
Social Sciences	773	15	12,000
Natural Sciences	386	13	5,000
Engineering	231	11	10,000
Agriculture	144	23	10,000
Health	176	9	20,000
Work sector:			
Primary	111	14	20,000
Secondary	181	11	10,000
Services (public)	1,028	12	10,000
Services (ICT./finance.)	452	14	14,000
Services (commercial)	501	26	10,000
Total	2,273	15	10,000

Note: the sample in this table considers each job or internship reported by the participants, and so multiple observations per participant are permitted (single observations = 1,569); the sale value is the median.

Source: ITEEFU data.

8 Quality of work

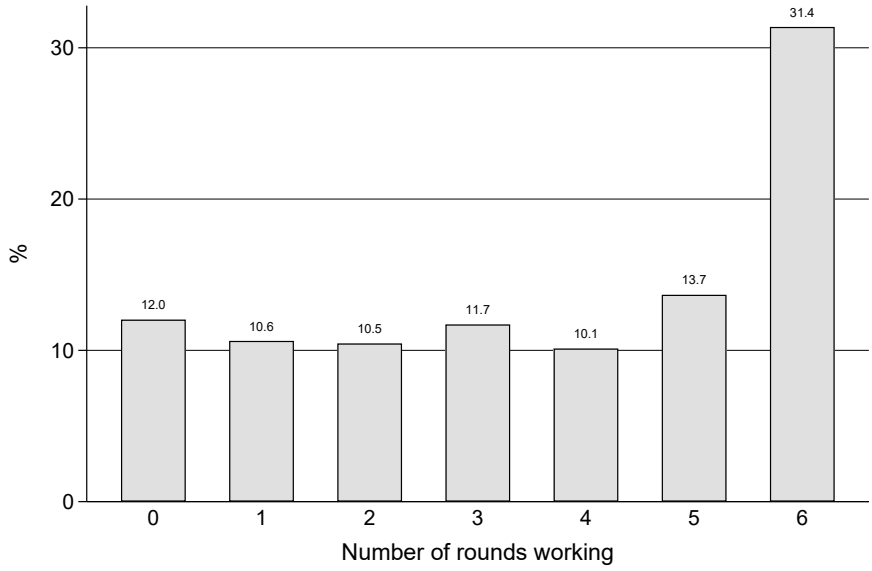
Key messages:

- Consistent with the diverse experiences of the school-to-work transition, the quality of employment secured by university finalists is also varied.
- Only 1 in 3 participants were working during each follow-up round, meaning that 2 out of every 3 finalists had a period of time without work.
- More than 1 in 3 participants reported having worked in at least two different positions over the course of the follow-up rounds.
- Whilst the contractual situation of finalists (in work) improved over time, by the last follow-up round less than 60% were registered with the social security authorities (INSS) and 50% were continuing to look for another job.
- Public administration tends to offer one of the best standards of employment quality. Employment in the commercial services sector appears to present the lowest quality, being the most precarious.

Having a job is one thing, having a 'good' job is another. Several dimensions can be used to measure employment quality, including: contractual situation, weekly hours of work, whether the person is actively seeking another job, and the time that the worker has been in the same position. The last two dimensions reflect the preference shown by the worker for his or her current position.

The ITEEFU data shows that few finalists secured a 'good job' straight after completing their university studies. Consistently with the analysis in Section 4, which showed that post-educational transitions are varied and not always smooth, Figure 18 shows that less than 1 in 3 finalists was working (had a job) during all the follow-up rounds, whilst approximately 40% had no work during three or more rounds (9 of the 18 months of follow-up). Likewise, Figure 19 indicates that more than 1 in 3 finalists worked in at least two different employment positions over the course of the six follow-up rounds. This means that, even if they found a job, a significant number of finalists did not continue in the same job through to the last round. In other words, the first job did not last.

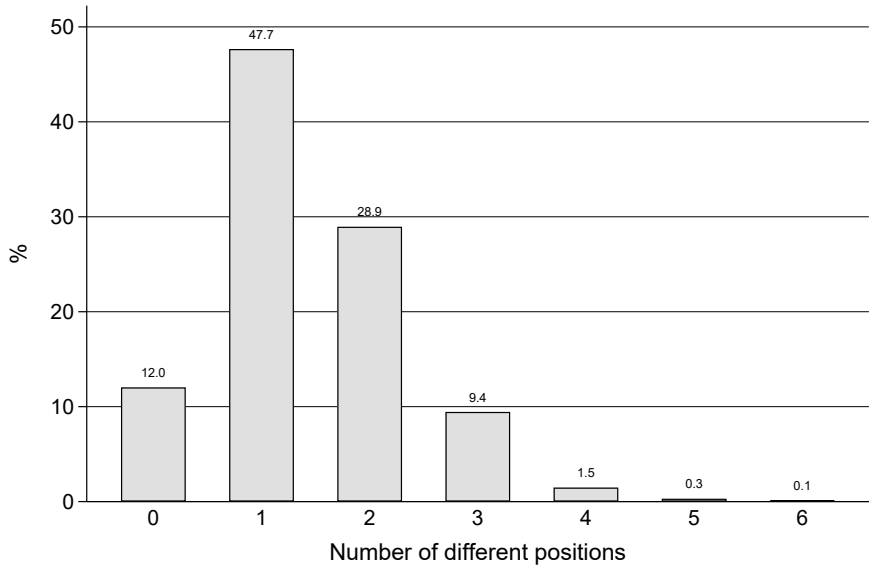
Figure 18: Finalists working, by number of rounds (%)



Note: N = 1,756, referring to the balanced panel of participants observed in each follow-up round.

Source: ITEEFU data.

Figure 19: Number of (different) employment positions/jobs over course of follow-up rounds



Note: N = 1,756, referring to the balanced panel of participants observed in each follow-up round.

Source: ITEEFU data.

Table 19: Quality of work, by round

Round	Dimensions of quality of work (% 'yes')							Obs.
	Permanent job	Registered INSS	Written contract	Connected to studies	Full time	Satisfied	Lasting employ-ment	
1	63	42	52	61	57	41	69	784
2	64	42	57	61	56	41	65	913
3	64	42	57	61	60	48	68	966
4	70	50	64	66	69	48	69	861
5	71	52	65	67	68	52	64	1,075
6	74	57	73	67	71	54	68	1,122
Média	68	48	62	64	64	48	67	954

Note: this table refers to participants who reported having an employment position or work other than an internship; someone is 'satisfied' when not (actively) seeking another job/other work; 'lasting employment' indicates that the person has been in the same position for more than six months.
Source: ITEEFU data.

The employment instability experienced by some finalists, as suggested above, is underlined by the employment quality measurements summarised in Tables 19 and 20. In these tables, the columns represent different quality dimensions (all positive), and the cells indicate the percentage of finalists with a job who say that their current position presents that characteristic. For example, in the first round, 63% of the finalists in work had a steady or permanent job (as opposed to casual work), and this increased to 74% by the last round. Looking at the evolution of the measurements over the rounds, Table 19 shows an improvement in quality in almost all aspects – in the last round many more finalists have a written employment contract (73%) and are working full time (71%) in comparison with the first round. We may therefore reassert our conclusion that many finalists started working in the post-educational period in a relatively precarious situation, but in general their situation improved over time.

Despite the improvements in relative terms, the absolute level of employment quality is not particularly high, even in the last round. In particular, more than 1 in 3 of the workers was not registered with the social security authorities (INSS), and almost 1 in 2 were looking for an alternative position in round 6. There are also substantial differences between finalists as regards employment quality in the final position in which they were observed. Table 20 shows that students in the fields of education and health generally secured better quality jobs, which is also reflected in jobs in public administration and in the public services sector. The most worrying finding is the quality of employment in the (other) commercial services sector and for

self-employed workers (family businesses). In these cases, the vast majority appear dissatisfied (more than 70% are looking for an alternative job) and less than 2 in 3 have a formalised contract. In addition, in these employment sectors, approximately only 1 in 3 are working in an area connected to their university studies. We may therefore point to considerable differentiation in the employment quality secured by the finalists in the post-educational period. There is a privileged group that secured a 'good job' by the end of the follow-up period, but the majority of these already started the period with a higher quality job. Of the finalists who started the follow-up period without work, only 14% secured high quality employment by their last position (see Table B6).

On the basis of these estimates of employment quality, the participants can be divided into three groups. There is a first group where the job quality is relatively high, meaning their employment position offers at least five of the dimensions cited above (Table 19). The second group has employment but in a position with lower quality, holding between zero and four of the quality dimensions. The third group consists of those without work. By the last round, it is estimated that approximately 40% of the participants were in the first group (with a 'good job'), 30% in the second group (with a 'bad job') and the remaining 30% were unemployed.

Table 20: Quality of work in last job occupied

	Dimensions of quality of work (% 'yes')						
	Permanent job	Registered INSS	Written contract	Connected to studies	Full time	Satisfied	Lasting employment
Gender:							
Male	65	52	66	66	68	50	64
Female	66	48	63	61	68	47	61
Faixa etária:							
18-22	65	48	63	63	68	45	46
23-25	55	45	59	61	70	41	58
26-55	74	56	70	67	68	57	79
Location of university:							
Maputo	66	49	65	63	66	50	66
Beira	65	54	61	71	79	43	48
University type:							
Public	65	49	65	63	66	49	65
Private	69	56	63	70	80	47	53
Study area:							
Education	72	48	69	69	55	54	74
Languages and Humanities	59	41	57	46	65	41	58
Social Sciences	61	53	61	58	75	46	58
Natural Sciences	62	46	63	62	75	53	55
Engineering	66	62	64	67	75	51	59
Agriculture	49	23	58	53	75	32	48
Health	76	60	74	85	84	46	50
Work sector:							
Primary	58	45	63	43	78	41	65
Secondary	74	64	74	64	89	55	53
Services (public)	77	54	76	79	64	57	68
Services (ICT./finance.)	75	66	78	61	85	51	55
Services (commercial)	41	32	33	27	64	30	50
Employer:							
Self-employed/family business	23	15	11	36	52	30	56
Private company	76	61	79	67	73	44	55
Non-governmental organisation	67	62	73	69	85	47	44
Public administration	89	60	87	77	70	73	82
Total	66	50	65	64	68	49	63

Note: this table refers to participants who reported having a job or work and represents the last position occupied (not necessarily in the last round, N = 1,506); the quality dimensions are from Table 19.

Source: ITEEFU data.

9 Remuneration

Key messages:

- The median salary received by university graduates rose from 10,000 MZN (170 USD) to 14,000 MZN (230 USD) per month over the follow-up rounds.
- At the same time, a gender pay gap emerged. By the last round, male graduates earned 2,000 MZN (33 USD) a month more than female graduates (median difference).
- The secondary sector offers the highest salaries (18,000 MZN / 300 USD per month). In this sector, the gender gap is reversed – women tend to earn more than men.
- Salaries are lowest in the commercial services sector (10,000 MZN / 170 USD).
- The salaries earned are lower than expected at the time of the baseline survey. In the most recent job position observed, the graduates' salary was only half the value they had expected in 2017.

This section addresses the level and evolution of salaries earned by university finalists over the follow-up rounds. Firstly, Figure 20 shows the median salary by follow-up round and gender. Due to differences in the number of hours worked, and in order to facilitate the comparison, all salaries reported below are calculated on an equivalent full-time basis. From this, we observe that the median salary rose from 10,000 MZN (170 USD) a month in the first three rounds, to 14,000 in the last round, in line with the improvement in employment quality and the increase in the number of finalists with a steady job (see Section 8).

Figure 21 illustrates the distribution of salaries in the first and last round in which participants were observed in work. It accordingly shows the evolution of individual salaries and confirms that the increase indicated in Figure 20 also applies to people who already had a job, and not only to participants who found their first job in the last few rounds. In concrete terms, the median salary increased by around 20% (by 2,700 MZN / 45 USD) in individual terms over the follow-up rounds. It is also worthy of note that the increases are observed in almost all the percentiles of the initial distribution, suggesting that both official graduation from university and work experience are factors that determine end salaries.

At the same time, despite this rise in the median salary, the figures show a growing divergence

between men and women. In the first round, there was no difference in the median salary between genders (in full-time equivalent). However, in the second round a slight divergence of 500 MZN (8 USD) emerged; in the last two rounds the gap widened, reaching 2,000 MZN (30 USD) in round six. This means that the median man in our sample earned a salary 16 percentage points higher than the median woman in the final follow-up round.

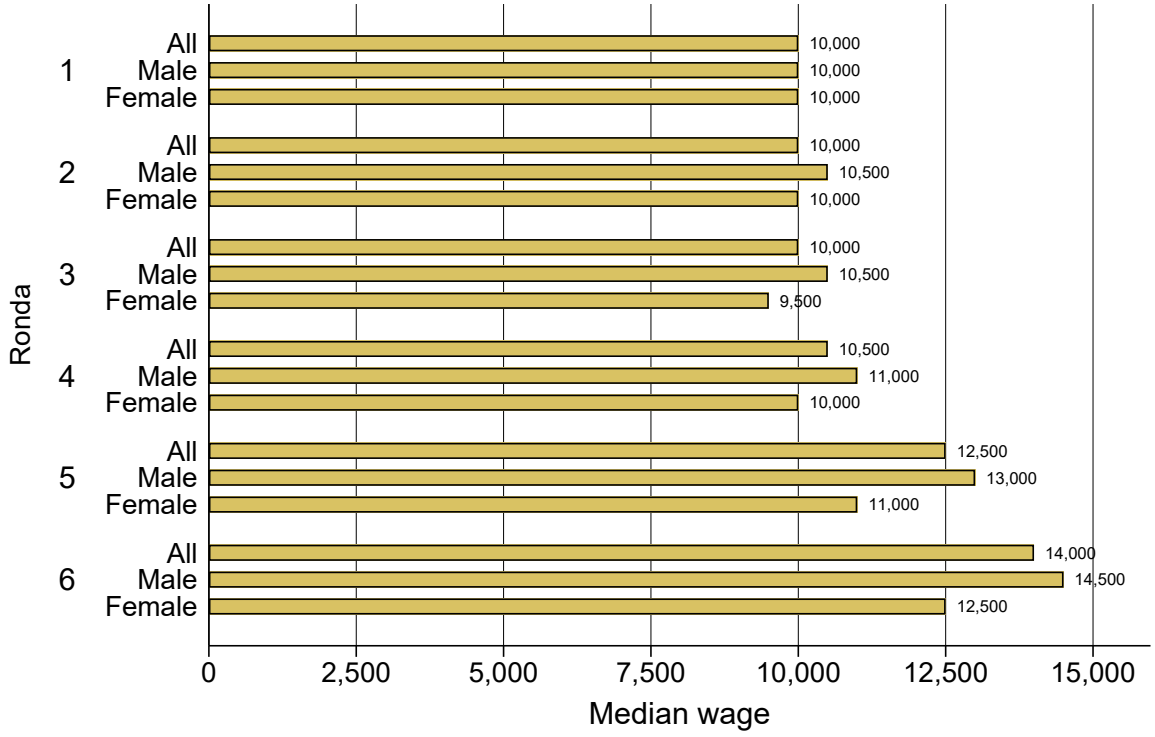
Other differences between salaries are also of interest. Figure 22 illustrates median salaries by sector and gender in the last employment position in which the participant was observed (generally, the most recent round). Here we can see nuances in the gender gap. Specifically, we note that the pay disadvantage faced by women is greater in the primary sector, where there is a gap in the order of 5,000 MZN (80 USD). In commercial services and in public services, men also continue to earn more than women (by around 2,500 MZN / 40 USD and 2,000 MZN / 30 USD respectively). In contrast, in ICT and financial services, an approximate gender parity is observed; and in the secondary sector, whilst the number of women in this sector is limited, the median woman here earns more than the median man. In part, it is possible that these gender disparities may reflect differences in the ratio between men and women by area of study and also differences in their previous experience. Even so, a deeper analysis of these disparities will be necessary in the future.

Connected to the previous point, Table B7 (and also Tables B8 and B9) underline the significant gaps between median salaries by sector as already indicated by Figure 22. The following sectors stand out as presenting relatively higher median salaries: health and welfare (18,000 MZN / 300 USD); manufacturing (18,000 MZN / 300 USD); construction (17,000 MZN / 280 USD); extractive industries (16,000 MZN / 260 USD) and the financial sector (16,000 MZN / 260 USD). At the other extreme, relatively lower salaries are found in transport and storage (8,000 MZN / 130 USD), tourism and catering (9,000 MZN / 150 USD) and retail and repairs (10,000 MZN / 170 USD). In general, these differences reflect not only differences in employment quality between sectors, but also some of the differences in the minimum wages for each sector. For example, the minimum salary approved by the Government on 30 April 2019 was 6,850 MZN (115 USD) for non-financial sectors, as compared to 12,760 in the financial sector (banking and insurance).[2] So although there is a labour market premium which results in median salaries earned by graduates higher than the minimum salary for the sector, this premium does not apply to the same basic salary.

Lastly, an important finding from this survey is the wide disparity between the salary expected

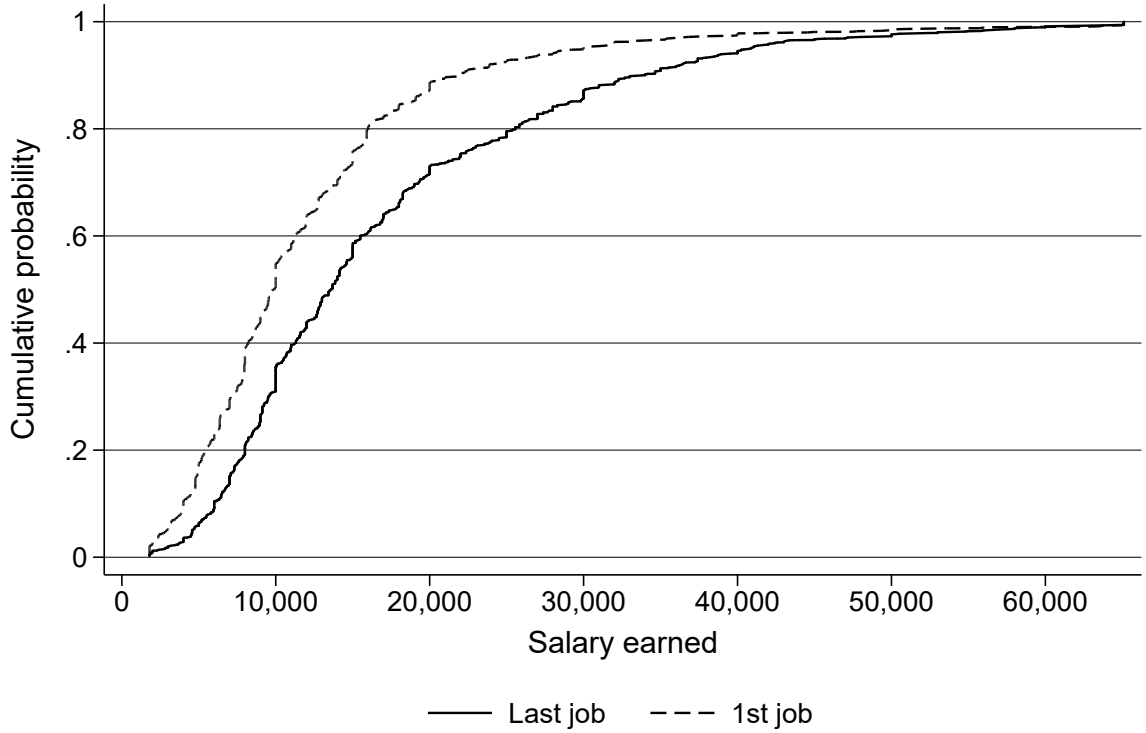
[2] Confer here: https://cta.org.mz/reajuste-dos-salarios-minimos-2019-aumentos-variam-de-cinco-a-12/.

Figure 20: Median salary by follow-up round and gender



Note: the salaries are reported in nominal terms and on a full time-equivalent.
Source: ITEEFU data.

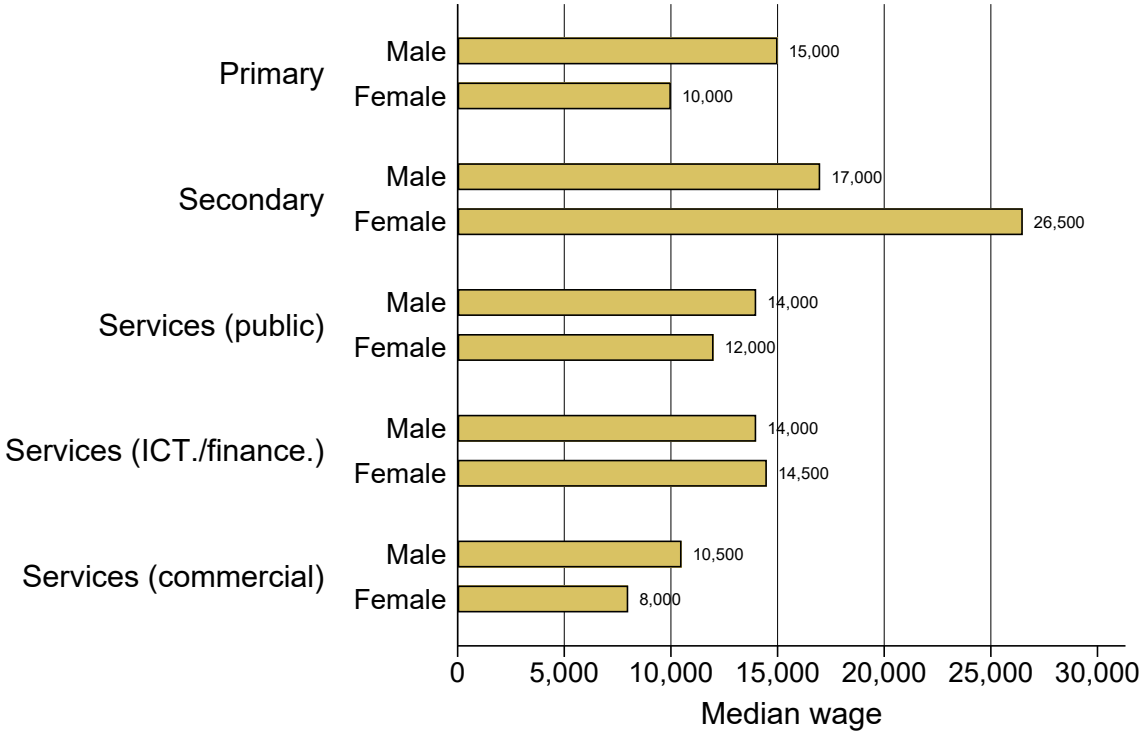
Figure 21: Cumulative breakdown of salaries in first and last position occupied (%)



Note: this graphs shows the distribution of salaries summarised in Table 21; it refers to the salary for the job/work in the first and last rounds in which the participant was observed, taking into account only participants with more than one salary observation (N = 1,062); salaries are reported on a nominal and full-time equivalent basis.

Source: ITEEFU data.

Figure 22: Median salary by gender and employment sector, last round observed



Note: the salaries are reported in nominal terms and on a full-time equivalent basis; this refers to the salary in the last round in which the participant was observed working, N = 1,517; see Section 6 for the definition of the aggregated sectors.

Source: ITEEFU data.

by participants, as elicited at the baseline (in 2017), and the salaries they subsequently earned (in 2018 and 2019), when they had already entered the labour market. These values are summarised in Table 21. In the first place, it is noteworthy that the (median) expected salary was around 25,000 MZN (420 USD) a month, with only slight differences by area of study (for example, students in the health area expected a salary of 35,000 MZN / 580 USD a month in their first job after university). So, in comparative terms, the expected salary was approximately 2.5 higher than the first salary earned and 1.8 times higher than the final salary observed.

These disparities between expected and realized salaries suggest two general conclusions. Firstly, although the participants have some idea of the differences in the monetary value of their areas of study in the labour market, they generally underestimate the scale of salary gaps. Secondly, it is clear that the participants were relatively optimistic as regards their future salaries. Whilst this optimism may be a 'natural' phenomenon, whereby humans generally tend to foresee a more ideal future than is actually achievable, it seems that expected salaries also reflected the level of pay that the participants considered to be fair, representing a salary with which they could live their lives as they wished. This interpretation is confirmed by the persistence of high expected salaries, even after the participants enter the labour market. From this standpoint, the deviation between earned salaries and the views of what constitutes a fair salary may generate of frustration and/or future choices motivated only by opportunities to earn (more) money without considering the respective social impact.

Table 21: Median salaries expected at baseline vs. salaries achieved in first and last round observed working

	Baseline	First round		Last round	
	Expected	Obtained	Difference	Obtained	Difference
Gender:					
Male	25,000	10,000	14,481	14,500	9,445
Female	24,000	9,428	12,332	12,000	9,000
Faixa etária:					
18-22	25,000	8,165	14,271	14,142	8,000
23-25	25,000	9,548	12,043	12,649	9,000
26-55	25,000	10,782	14,087	14,000	9,926
Married?:					
Não	25,000	9,487	13,601	13,064	9,000
Sim	25,000	11,139	14,700	14,846	9,881
Location of university:					
Maputo	25,000	10,000	13,861	13,000	9,633
Beira	25,000	9,548	13,007	17,146	6,000
University type:					
Public	25,000	9,500	14,000	12,910	9,508
Private	25,000	13,000	10,858	16,971	8,000
Study area:					
Education	25,000	9,500	13,861	12,728	9,926
Languages and Humanities	25,000	8,752	14,000	10,600	9,958
Social Sciences	25,000	9,548	12,613	13,416	8,453
Natural Sciences	30,000	11,139	15,000	15,000	10,476
Engineering	30,000	13,048	16,000	20,000	10,858
Agriculture	25,000	7,957	13,861	10,000	8,000
Health	35,000	12,829	20,200	23,000	11,100
Work sector:					
Primary	25,000	10,142	11,000	12,910	11,000
Secondary	25,000	11,139	12,633	18,974	9,000
Services (public)	25,000	10,000	14,497	14,033	9,508
Services (ICT./finance.)	25,000	10,000	12,643	14,000	8,500
Services (commercial)	22,000	8,050	11,407	10,000	9,000
Total	25,000	9,899	13,773	13,602	9,310

Note: the expected salary is based on the baseline survey and refers to the salary expected in their first job after completing their studies; the differences are calculated individually and reflect the deviation between the value expected at the baseline and that earned; observations are included if there are valid values for both the expected salary and that earned and if there is more than one observation per participant (N = 1,062).

Source: ITEEFU data.

10 Reflections on post-educational experience

Key messages:

- Almost all participants (99%) believe it was worthwhile to attend higher education. The vast majority (84%) would choose the same university again. However, 33% would choose a different course.
- The estimate of the monetary value of higher education, measured in terms of a salary increment, varies between areas of study. In the areas of engineering and health, participants think that their salary now would be less than half of what it is now had they not attended university. However, in areas such as education and agriculture, the perceived salary increment associated with higher education is less than 1,000 MZN (16 USD) a month.
- Approximately 50% of participants consider that their current work/job does not require a university qualification.

The previous section pointed to a significant divergence between the salaries expected by participants and those they subsequently earned. Aware of this, in the final follow-up round we asked a series of questions allowing participants to reflect on their post-educational experience. We asked if, looking back with hindsight, they would, again: continue on to higher education, choose the same university, and the same course. As shown by Table 22, only 1 in every 100 participants has doubts about the value of having attended higher education. The great majority (84%) would also attend the same university again, although it is noted that satisfaction is slightly lower in relation to private sector universities, where 77% would return to the university they attended. The choice of attending the same course again raised more differences of opinion. One third of the participants express the view that they would not take the same course again, especially students in languages and humanities, of which a half are not satisfied with the course they chose. In comparison, engineering and health students are generally the most satisfied, and 3/4 of them would choose the same course again.

In general, the differences in terms of satisfaction with their university course corresponds to the degree to which their employment position requires a qualification from higher education. As may be seen from Table 22, slightly more than half the participants interviewed in the final

Table 22: Reflections on post-educational experience

	With hindsight, would you choose ...			Your job
	To study in higher	The same university?	The same course?	Needs higher educ
Gender:				
Male	99	85	69	57
Female	98	82	66	54
Faixa etária:				
18-22	98	82	71	56
23-25	98	85	65	50
26-55	100	83	67	60
Location of university:				
Maputo	99	83	64	55
Beira	99	87	83	60
University type:				
Public	99	85	65	54
Private	98	77	77	63
Study area:				
Education	99	87	62	60
Languages and Humanities	99	85	48	41
Social Sciences	98	80	68	49
Natural Sciences	98	79	65	51
Engineering	98	83	84	56
Agriculture	99	86	72	55
Health	100	96	77	80
Work sector:				
Primary	100	86	66	48
Secondary	98	80	80	53
Services (public)	100	89	72	67
Services (ICT./finance.)	98	81	70	49
Services (commercial)	98	75	57	27
Employer:				
Self-employed/family business	98	77	59	34
Private company	99	86	73	54
Non-governmental organisation	100	80	63	61
Public administration	100	90	71	66
Total	99	84	68	56

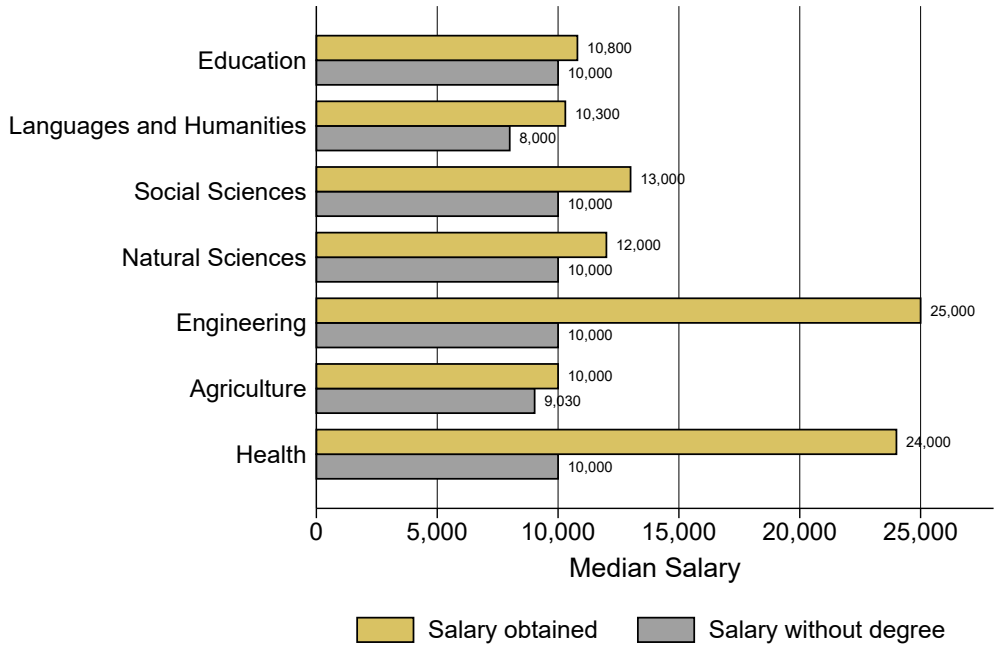
Note: The observations in the table vary depending on the characteristics (by line and column). In the column "With hindsight ...", the first characteristics (in the line) have N = 1,702, for all who answered the question and N = 1,161 in the last two characteristics and for all the characteristics in the column "Your job" (individuals in work) in the last round

Source: ITEEFU data.

round said that they need a degree for their work. In other words, a significant number of participants work in jobs regarded as beneath their educational level, which represents a degree of vertical *mismatch*. Among participants who studied languages and humanities and/or those now working in commercial services, the level of those who say they need a qualification from higher education for their current work is significantly low.

There are several possible factors contributing to the low level to which higher education qualifications are needed in the current work. These include inflation in the qualification requirements of employers, combined with a shortage of jobs reserved for graduates, especially in certain areas. This explanation gains weight when we compare the salary earned with that which the same participant estimated he or she would earn had they not attended higher education. Figures 23 and 24 sum up data that shows that in the areas of health and engineering, the perceived monetary added value associated with their training is very high – without a university degree, the participants estimate they would earn a salary less than half of what they now earn. But we should note: estimated salaries without a degree very little across areas of study or sectors. It is therefore clear that the Mozambican economy places a fairly high value on specialists (graduates) in the fields of health and engineering, and that these resources are scarce. In the other areas, the demand for graduates appears much lower, and the scarcity of human resources much less pronounced. So, it is no surprise that the degree of satisfaction with their university course is not consistently high.

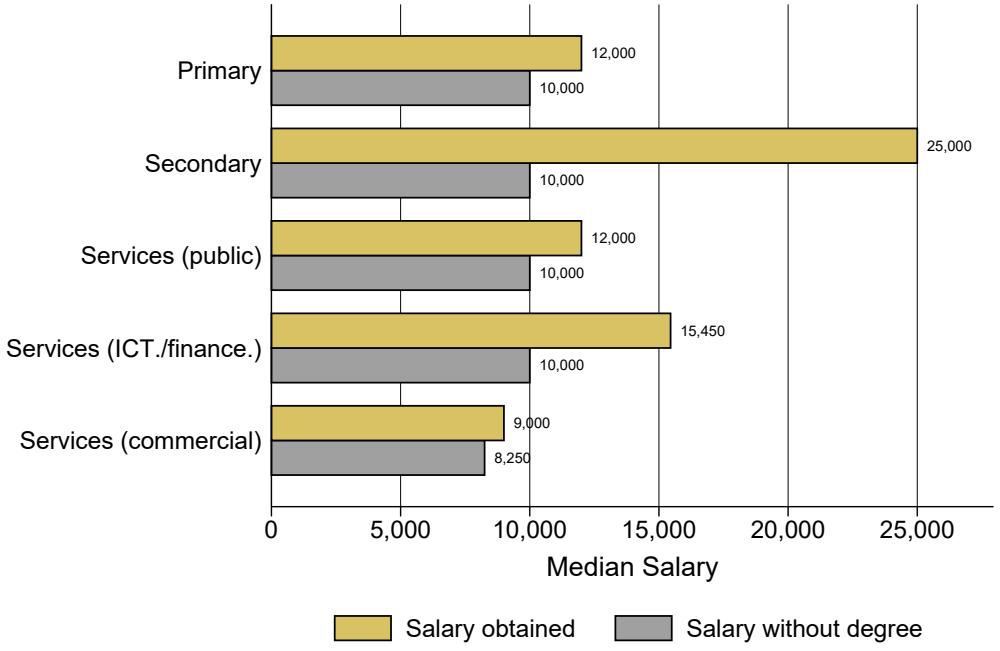
Figure 23: Median salary obtained vs estimated without degree, by area of study (round 6)



Note: The sample in this graph, N = 713, refers to participants who reported both salaries "earned" and "estimated without a degree".

Source: ITEEFU data.

Figure 24: Median salary obtained vs estimated without degree, by sector (round 6)



Note: The sample in this graph, N = 713, refers to participants who reported both salaries "earned" and "estimated without a degree".

Source: ITEEFU data.

11 Conclusion

This survey set out to provide an overview of the school-to-work transition of students who, in general terms, reach the highest level of qualifications in Mozambique, namely university graduates. The research monitored more than 2,000 university students in Mozambique, who in 2017 were finalists at six of the country's largest universities, at their Beira and Maputo campuses. The baseline survey was conducted over the course of 2017. Follow-up monitoring started in March of 2018 and ended 18 months later, in September 2019.

It was known in advance that higher education graduates are a minority group, representing only 0.9% of Mozambique's working population, according to data from the 2017 Census. Analysis of the profile of the university finalists confirmed that this is a more urban group, originating in better educated families who have jobs primarily in the public sector, which does not correspond to the predominant profile of the Mozambican population. In fact, it is a profile more typical of the country's upper-middle class. From their backgrounds, qualifications and relatively small numbers, it might be expected that this group would experience a high level of employability. The reality, is mixed and points to more difficulties than expected.

Almost half the finalists, 40%, found work immediately (or had a job waiting for them). A further 21% found work during the follow-up period. However, post-educational transitions were uneven and can be split into three broad groups:

1. One group ($\sim$40%) managed to secure a 'good job'. These are jobs mainly in public services, technology, finance and construction. They offer relatively high salaries and the contractual terms are better (e.g. permanent employment contract). Most of the participants who found these jobs followed specific courses of study, such as medicine, courses in the natural sciences (in particular, IT), engineering and education. Of these, a significant number either already had a job prior to completing their studies or found a job soon afterwards.

2. A second group ($\sim$30%) only managed to find a 'bad job', with relatively low pay and less job security (e.g. without a contract). Many of these bad jobs are in the commercial services sector (e.g. retail) and are more associated with certain specific areas of study, such a languages and humanities, social sciences and agriculture.

3. A third group ($\sim$30%) failed to find lasting employment. Whilst 10% of students never found a job, 1 in 3 worked for less than six months of the 18 months of the follow-up

period. By the last round, 23% of the finalists were unemployed.

But the disparities in post-educational transitions went further than suggested by these three categories. There are significant gender gaps in the graduates' experiences of transition to the labour market. Less women found work immediately, and women had to look longer for a job, even when compared with their peers from the same field of training. By the last round, the median salary per sector was generally lower for women.

There is evidence of a certain salary premium associated with a university qualification – the minimum salary in non-financial sectors in 2019 was 6,850 MZN (115 USD) is much lower than the median salary earned by finalists, which rose from 10,000 MZN (170 USD) to 14,000 MZN (230 USD) a month over the follow-up period. The median salary of finalists who found work in the financial sector (16,000 MZN / 270 USD) is also significantly higher than the minimum salary in that sector (12,760 MZN / 212 USD). The secondary sector offers the highest salaries on average for graduates (18,000 MZN / 300 USD per month). In this sector, the gender gap is reversed – women tend to earn more than men. Salaries are lowest in the commercial services sector (10,000 MZN / 170 USD month). It should nonetheless be noted that the salaries earned are rather lower than what the finalists had expected, as expressed in their responses to the baseline survey. In the most recent employment observed, the salary earned was only half the value that had been expected in 2017.

Because it focuses on students, a survey of school-to-work transitions is not a study of demand in the labour market, which would focus on employers. However, it is not a mere study of the supply of employment. It is in fact a study of the match (or mismatch) between the supply of labour, by graduates, which comprises their personal characteristics, intrinsic skills and knowledge acquired, in particular, through their academic training, and the demand for labour, from employers. As such, it can provide information on employment sectors which are better absorbing the human capital leaving the university sector each year, and on employment sectors that appear not to be absorbing this capital easily. In relation to the group of finalists from 2017, this study provides evidence of a mismatch between the sectors (principally) and the employers where the finalists would like to work and those where they found jobs. Most job opportunities are in the service sector. In the last round, only 12% of working graduates were in the primary or secondary sectors, and 55% had found work in public services (e.g. education, health).

With respect to sectors that would most naturally employ finalists from each area of studies, we may note that 69% of finalists in education found work in that sector; 68% of finalists in health

found work in that sector; 50% of finalists from social sciences found work in sectors such as retail, technology and communications, finance or consultancy; 49% of engineering finalists found work in sectors such as extractive or manufacturing industries or civil construction; 31% of finalists from natural sciences found work in the technology and communications sector; but only 17% of finalists in agriculture found work in the agricultural or livestock farming sector. There is strong evidence that most finalists who found work are not working in sectors that would naturally employ technical staff qualified in their areas of study. It is therefore no surprise that almost the majority of participants who found work were still looking for another job. Also, it is worthy of note that half of them said that their current employment situations did not require university training. There is therefore a strong suggestion that the Mozambican economy is not generating enough employment to absorb the resources it is training at university level.

It is equally important to note that university finalists tend to stay in the provinces where they completed their university studies, irrespective of their home province. This points to large spatial differences in skilled human capital, which may justify a strategy of development for the university sector that responds to the sectoral and economic development needs of different provinces of the country.

Lastly, the findings make it clear that formal and transparent channels linking finalists to jobs are not only little sought after, as the findings of the baseline survey demonstrated, but also even less effective than expected. The job-seeking strategies that led to employment were mainly informal (e.g. personal contacts). Formal channels (e.g. media, newspapers) are less effective; but the internet is beginning to be important, mainly for participants with some work experience.

In short, this research tells a story of post-educational transition processes by university finalists which are far from direct, simple or uniform. The transitions point to an economy that has difficulty in absorbing the human capital generated by Mozambican universities, giving rise to waiting times for first jobs which are not negligible and significant percentages of finalists employed in sectors and types of work where it is not clear that their qualifications have the greatest impact or relevance.

The research reveals and confirms the need for more information on job opportunities (career paths) for university graduates and for greater transparency in recruitment processes, for the sake of employers' own interests, and those of graduates, especially women coming out of university.

From a sectoral standpoint, it is recommended that attention be paid to the low numbers of graduates finding work in the natural areas for their courses, especially in the case of engineering

graduates in industrial sectors (only around half) and, more detrimentally, in that of agricultural graduates, considering the sector's great importance for Mozambique (less than 1 in 5).

We also recommend that attention be paid to the significant undervaluation of graduates who found work in the commercial services subsector, not only because of the poor employment quality and lower pay, but also in view of the wide prevalence of the practice of offering vacancies for sale.

This study also points to the importance of developing a more complete picture of the post-educational transitions of university students, which requires looking at the demand for skilled labour and the process of dialogue between employers and universities. This is an area for future research.

This was the first study of the transition of university students to the labour market in Mozambique. We believe it provides evidence of great value for the university sector, for companies and organisations that seek to hire graduates and, in particular, for young women and men who are considering taking a university course, as well as for their families. We must inevitably point out that the information generated here will be even more useful if part of a series of studies of post-educational transitions, at this and other educational levels, as well as ongoing research monitoring the trajectories of university graduates in the labour market over time.

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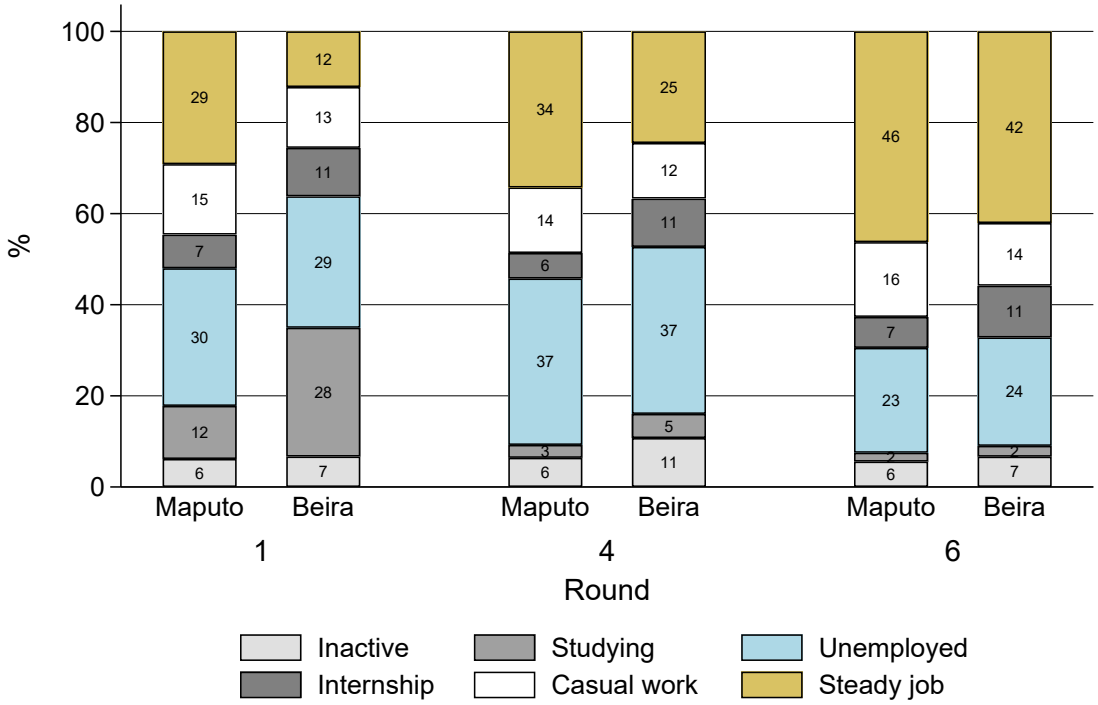
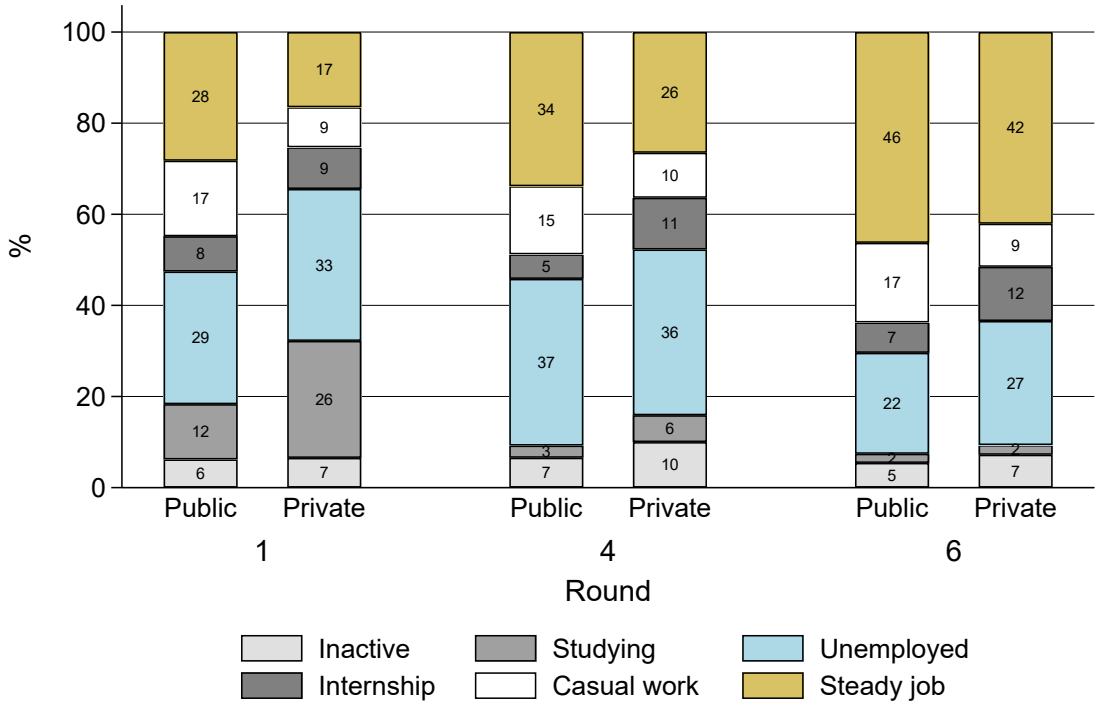
A Additional figures

Figure A1: Economic situation by round and university location



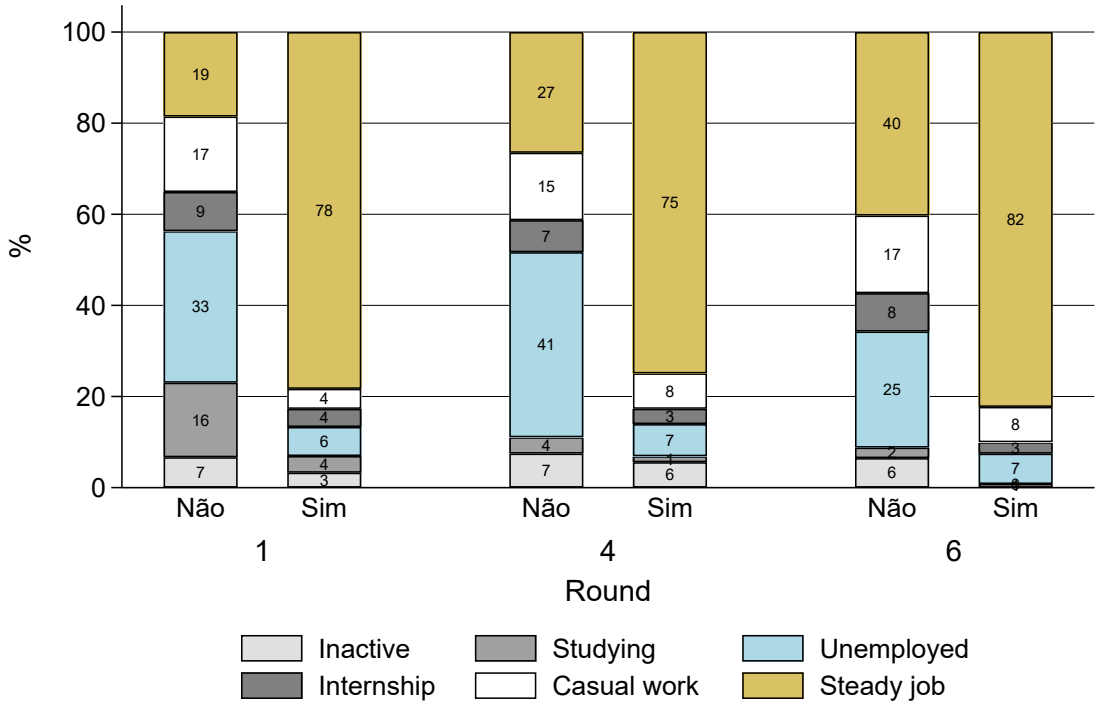
Source: ITEEF data.

Figure A2: Economic situation by round and university type



Source: ITEEF data.

Figure A3: Economic situation by round and first job



Source: ITEEF data.

B Additional tables

Table B1: Mean coefficient of adjustment to weightings in baseline survey

	Gender		
Study area	Male	Female	Total
Agriculture	1.02	1.08	1.05
Education	1.06	1.10	1.08
Engineering	1.03	1.12	1.05
Health	1.02	1.12	1.08
Languages and Humanities	1.05	1.11	1.08
Natural Sciences	1.04	1.06	1.05
Social Sciences	1.05	1.16	1.11
Total	1.04	1.13	1.08

Source: ITEEFU data.

Table B2: Sector of employment in last round observed by area of study, percentage

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	1	0	1	3	3	17	1	2
Extractive industry	0	0	1	3	3	1	0	1
Manufacturing	1	0	2	4	11	3	0	2
Constuction	1	1	2	1	35	0	0	4
Retail and Repairs	8	12	14	8	6	20	4	11
Tourism and Hospitality	1	3	1	1	1	1	1	1
Transport and Storage	0	2	2	1	3	1	1	1
Technology and communication	2	14	10	31	7	9	1	8
Financial	2	8	20	4	3	4	1	10
Public administration	5	9	21	4	2	2	6	12
Education	69	27	13	23	15	34	15	33
Health and Welfare	4	5	4	10	3	8	68	9
Consultancy/other services	2	13	6	4	3	0	0	4
Not specified	2	5	4	4	3	2	2	3
Total	100	100	100	100	100	100	100	100

Note: N = 1.571, see Table B3.

Source: ITEEFU data.

Table B3: Sector of employment in last round observed by area of study, number of observations

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	6	0	7	2	4	13	1	32
Extractive industry	0	0	5	2	4	0	0	11
Manufacturing	3	0	11	2	14	2	0	32
Constuction	6	0	13	1	43	0	0	63
Retail and Repairs	37	3	95	5	8	16	4	169
Tourism and Hospitality	7	1	5	1	1	0	1	16
Transport and Storage	1	1	13	1	4	0	1	21
Technology and communication	12	4	69	20	9	7	1	121
Financial	12	2	139	2	4	3	1	163
Public administration	25	2	142	2	3	2	6	182
Education	343	7	87	14	18	27	15	512
Health and Welfare	20	1	30	7	4	6	67	135
Consultancy/other services	11	3	41	3	4	0	0	63
Not specified	12	1	27	2	4	1	2	50
Total	495	26	685	64	123	80	99	1,571

Source: ITEEFU data.

Table B4: Sector of employment in last round observed by area of study, male

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	2	0	1	3	2	15	0	2
Extractive industry	0	0	1	3	5	1	0	1
Manufacturing	0	0	2	5	13	2	0	2
Constuction	2	2	3	2	33	0	0	5
Retail and Repairs	4	4	8	7	5	17	3	7
Tourism and Hospitality	1	2	1	1	1	1	0	1
Transport and Storage	0	2	3	2	2	1	2	2
Technology and communication	3	16	11	35	7	8	0	8
Financial	3	6	20	3	4	6	0	10
Public administration	4	12	22	3	3	2	9	12
Education	74	31	13	22	17	42	13	34
Health and Welfare	3	4	4	8	1	3	70	8
Consultancy/other services	2	14	7	4	3	0	0	4
Not specified	3	6	5	3	4	2	3	4
Total	100	100	100	100	100	100	100	100

Source: ITEEFU data.

Table B5: Sector of last employment position by area of study, Female

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	1	0	0	2	5	21	1	2
Extractive industry	0	0	1	2	0	0	0	0
Manufacturing	1	0	1	2	5	5	0	1
Constuction	0	0	0	0	43	0	0	2
Retail and Repairs	12	26	22	9	9	27	5	17
Tourism and Hospitality	2	6	1	2	0	0	1	1
Transport and Storage	1	3	1	0	5	0	0	1
Technology and communication	2	10	9	23	9	10	3	7
Financial	1	10	21	5	0	0	1	11
Public administration	7	3	19	6	0	2	3	11
Education	64	20	13	24	10	15	19	31
Health and Welfare	5	7	4	15	10	19	65	10
Consultancy/other services	3	10	5	5	5	0	0	4
Not specified	1	3	3	5	0	0	1	2
Total	100	100	100	100	100	100	100	100

Source: ITEEFU data.

Table B6: Classification of finalists by worst and best quality of work achieved over monitoring rounds

Quality in 'worst' position ↓	Quality in 'best' position				Total	Obs.
	Zero	Low	Medium	High		
(a) As percentage of lines:						
None	21	54	25	100	1,291	
Bad	0	31	69	100	588	
Good	0	0	100	100	189	
Total	13	42	45	100	2,068	
(b) As percentage of columns:						
None	100	80	34	62	1,291	
Bad	0	20	43	28	588	
Good	0	0	22	10	189	
Total	100	100	100	100	2,068	
Obs.	285	883	900	2,068		

Note: employment positions are classified in four types for their level of quality and on the basis of the seven dimensions indicated in Table 19: 'zero' = no employment; 'low' = one or two quality dimensions; 'medium' = three to five quality dimensions; 'high' = six or seven quality dimensions.
Source: ITEEFU data.

Table B7: Median salaries by employment sector in last round observed

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	16,000		16,000	14,000	10,000	13,000	10,000	13,000
Extractive industry			16,000	25,000	13,000	25,000		16,000
Manufacturing	8,000		18,500	24,000	15,000	15,000		18,000
Constuction	14,000	7,000	6,500	22,500	26,500			17,000
Retail and Repairs	6,000	3,500	12,500	10,000	24,000	7,500	13,000	10,000
Tourism and Hospitality	6,500	15,500	21,000	6,000	9,000	5,000		9,000
Transport and Storage	5,000	5,000	8,000	12,000	54,500	2,000	18,000	8,000
Technology and communication	12,500	12,000	11,000	15,000	18,000	27,000	8,000	12,000
Financial	10,000	23,500	16,500	9,000	18,500		30,500	16,000
Public administration	9,500	10,000	13,000	13,000	20,000	13,000	19,000	12,000
Education	13,000	8,500	10,500	11,000	11,000	8,500	19,000	12,500
Health and Welfare	7,000	6,000	12,000	22,000	7,500	14,000	29,000	18,000
Consultancy/other services	6,500	8,000	10,000	10,000	20,000	2,000		9,500
Not specified	9,500	15,000	15,000	18,750	22,000	21,250	4,500	12,500
Total	12,000	10,000	12,500	13,500	20,000	10,000	20,000	12,500

Note: the salaries are reported in nominal terms and in equivalents to full time; this refers to the salary in the last round in which the participant was observed working, N = 1.517. Source: ITEEF data

Source: ITEEFU data.

Table B8: Median salaries by employment sector in last round observed, male

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture	16,000		16,000	14,000	10,000	13,000		13,000
Extractive industry			33,250	29,000	13,000	25,000		17,000
Manufacturing			18,500	20,500	15,000	25,000		18,500
Constuction	14,000	7,000	6,500	22,500	24,000			14,000
Retail and Repairs	6,500	3,000	14,500	10,000	20,000	6,000	13,000	10,500
Tourism and Hospitality	11,000	15,500	21,000	6,000	15,000	3,000		15,000
Transport and Storage		5,000	8,000	12,000	54,500	2,000	18,000	8,500
Technology and communication	20,000	10,500	12,000	15,000	18,000	27,000		12,500
Financial	9,000	23,500	16,000	26,000	18,500			15,500
Public administration	10,500	9,500	14,000	16,000	20,000	5,500	19,000	14,000
Education	14,000	12,500	10,500	10,000	14,000	8,500	20,000	13,500
Health and Welfare	10,000	11,500	13,000	16,500	10,000	25,500	29,000	19,500
Consultancy/other services	7,000	16,000	11,500	29,500	20,000	14,000		11,000
Not specified	9,500	29,250	15,000	18,000	22,000	21,250	4,500	15,000
Total	13,000	12,000	13,500	14,000	20,000	10,000	22,000	14,000

Fonte: see Table B7.

Source: ITEEFU data.

Table B9: Median salaries by employment sector in last round observed, Female

Sector ↓	Study area							Total
	Educ.	Lang. and Human.	Soc. Sciences	Nat. Sciences.	Engin.	Agric	Health	
Agriculture			5,500	14,000		8,500	10,000	8,500
Extractive industry			7,000	25,000				7,000
Manufacturing	8,000		29,000	24,000		6,000		12,500
Constuction			15,000		30,000			30,000
Retail and Repairs	5,500	4,000	10,000	4,500	34,500	8,500	9,000	9,000
Tourism and Hospitality	6,500	11,000	2,000	20,500	9,000	5,000		6,500
Transport and Storage	5,000		6,000					5,000
Technology and communication	7,000	12,500	10,000	9,000	25,500	16,000	8,000	10,000
Financial	12,250	23,000	17,000	5,500			30,500	16,500
Public administration	8,000	10,000	10,000	10,500		13,000		9,000
Education	12,500	5,500	11,500	12,000	7,000	10,500	19,000	12,500
Health and Welfare	7,000	5,500	6,500	31,000	7,500	13,500	30,000	13,500
Consultancy/other services	4,500	6,500	7,000	10,000		2,000		6,000
Not specified	10,750	2,000	36,000	18,750			10,000	12,500
Total	10,000	7,000	11,500	12,000	26,500	10,000	20,000	11,500

Fonte: see Table B7.

Source: ITEEFU data.

C List of courses by aggregate area of studies

Agriculture: Agro-Economics and Agricultural Extension; Agro-Livestock Farming; Marine, Aquatic and Coastal Biology; Rural Development; Agrarian Economics; Agronomy; Forestry Engineering; Veterinary Studies; Ecology and Conservation of Terrestrial Biodiversity; Environmental Education.

Natural Sciences: Administration of Information Systems and Networks; Biology and Health; Cartography and Geological Research; Geographical Information Sciences; Computer Science; Computer Engineering; Computer and Telecommunications Engineering; Statistics; Physics; Applied Geology; Computing; Management Computing; Mathematics; Meteorology; Industrial Chemistry; Information Technology.

Social Sciences: Accounting and Auditing; Business Administration and Management; Anthropology; Business Management; Actuarial Studies; Communication Sciences; Legal Studies; Political Studies; Accounting; Accounting and Auditing; Accounting and Finance; Cooperation for Development; Law; Economics; Economics and Management; Geography; Management; Commercial Management; Corporate Management; Tourism Business Management; Human Resources Management; Financial and Banking Management; Port Management; History; Journalism; Regional and Urban Planning; Organisational Psychology; School and Special Educational Needs Psychology; Social and Community Psychology; Social and Organisational Psychology; Sociology.

Education: Education Administration and Management; Educational Studies; Infant Development and Education; Early Childhood Education; Education and Social Work; Visual Education; Primary Education; Teaching of Biology; Teaching of Physical Education and Sport; Teaching of Philosophy; Teaching of Physics; Teaching of French; Teaching of Geography; Teaching of History; Teaching of English; Teaching of Bantu Languages; Teaching of Mathematics; Teaching of Portuguese; Teaching of Chemistry; Mozambican Sign Language; Educational Organisation and Management; Educational Psychology.

Engineering: Environmental Engineering; Civil Engineering; Process Engineering; Electrical Engineering; Electronic Engineering; Mechanical Engineering; Mechatronic Engineering.

Languages and Humanities: Archaeology; Archaeology and Management of Cultural Heritage; Archival Studies; Performing Arts; Librarianship; Linguistics; Mozambican Literature; Music; Drama; Portuguese/French Translation; Portuguese/English Translation.

Health: Hospital Administration and Management; Clinical and Laboratory Analyses; Senior Nursing; Pharmacy; General Medicine; Psychology; Clinical Psychology and Social Work; Social Services.

D Monitoring survey questionnaire (example)

Below we present a copy of the questionnaire used in the fourth round of telephone monitoring. Note that small changes were made to the questionnaire over the various rounds.

The base survey questionnaire is found in Jones et al. (2018).

Phone questionnaire

INTRODUCTION

SCENARIO CHOICE – INTERVIEWER INSTRUCTION

1. SCENARIO 1 **[PHONE NUMBER 1 & 2]** **[GO TO SCENARIO 1]**
2. SCENARIO 2 **[PHONE NUMBER FAMILY OR FRIEND]** **[GO TO SCENARIO 2]**

SCENARIO 1: CONTACT IS MADE BY PRIMARY OR SECONDARY MOBILE PHONE NUMBER

Good day [*name*]. We are calling you because you kindly agreed to take part in follow-up surveys regarding the transition of young people into the labour market. The survey is conducted by Ipsos for the University of Copenhagen, UNU-WIDER and the University of Eduardo Mondlane Do you have 5 minutes to answer a few questions? We would like to remind you that all answers are anonymous and will not be shared with any third parties.

Can you confirm your details so we can be sure that we are speaking with the right person:

ASK ALL

1. What is your first name:

2. What is your family name:

3. What is your year of birth:

4. Which university were you attending in 2017:
    1. Universidade Eduardo Mondlane (UEM)
    2. Universidade Catolica de Mocambique
    3. Universidade de Zambeze
    4. Universidade Sao Tomas de Mocambique
    5. Universidade Pedagogica
    6. Universidade Politecnica
    7. Other **[OE]**

5. In which province of Mozambique or country are you currently residing?
    1. Cabo Delgado
    2. Gaza
    3. Inhambane
    4. Manica
    5. Maputo Cidade
    6. Maputo Província
    7. Nampula

8. Niassa
9. Sofala
10. Tete
11. Zambezia
12. Country: South Africa
13. Country: Zimbabwe
14. Country: Tanzania
15. Country: Angola
16. Country: Portugal
17. Country: Brazil
18. Country: Other **[OE]**
99. Answer refused

INTERVIEWER INSTRUCTION

1. CORRECT INFORMATION **[GO TO Q1a]**
2. NOT THE RIGHT PERSON **[GO SCENARIO 2 QUESTIONS TO GET THE CORRECT CONTACT]**

SCENARIO 2: CONTACT IS MADE BY PHONE NUMBER OF FRIEND OR RELATIVE

Good day [name]. We are conducting a survey on the transition of young people into the labour market. The survey was run by researchers from the University of Copenhagen, UNU-WIDER and the University of Eduardo Mondlane. [NAME and FAMILY NAME from UNIVERSITY LOCATION NAME] agreed to take part in tracking study and [NAME] gave us your contact in order to reach him/her if he is not available on his mobile phone . Could you please help us to reach him/her:

1. If you can pass phone to him/her **[GO TO SCENARIO 1]**
2. If we can call at another time when he/she will be reachable on this phone:
   _____ Hour **[Hour 1-12 / Minutes 1-60]** _____date **[Day 1-31 / Month 1-12] [TO REGISTER FOR FUTUR CALL ON SCENARIO 1 – THANK AND END THE INTERVIEW] [END OF INTERVIEW]**
3. If you can give us the phone number on which we can reach him/her:
   _____ phone number **[TO REGISTER FOR FUTUR CALL ON SCENARIO 1 – THANK AND END THE INTERVIEW] [FIRST AND SECOND PHONE NUMBER WILL BE DISPLAYED ON THE SCREEN. IF THE CONTACT PROVIDE THE SAME NUMBER PROBE TO GET ADDITIONAL, NEW NUMBER] [END OF INTERVIEW]**

ASK ALL

Q1a. In the past 7 days have you undertaken any work? By work I mean any form of economic activity, either paid or unpaid.

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 2 [NOT WORKING LAST 7 DAYS]

Q1b. Do you currently have a regular job?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 1 [WORKING] OR Q1b IS 1 [HAS REGULAR JOB]

Q1e. Is it the same work/activity since the last time we contacted you?

[SINGLE ANSWER]

1. Yes
2. No
3. Can't recall / was not contacted

ASK ALL

Q1c. We are interested if your situation regarding the completion of your studies has been changed from the last time you were interviewed for this survey. Have you completed all the courses from the degree you were studying last year (2017), including the thesis?

[SINGLE ANSWER]

1. Yes, I completed
2. No, I didn't complete yet

ASK IF Q1c IS 1 [YES]

Q1d. What was your final grade?

[SINGLE ANSWER]

1. _____ [integer value between 0 and 20; check if less than 10]
2. Refuse to say
3. Don't know yet

PART 1 WORKING PEOPLE [INTERNAL TEXT]

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q1. How long have you been working in this job/activity? **[if respondent has several jobs, in the following questions, he/she should focus on the one which he/she consider as the main job/activity]**

[SINGLE ANSWER]

1. _____weeks **[1 TO 4]** _____months **[1 to 12]** _____years **[0 to 40]**

99. Don't know **[DO NOT READ]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q2a. Which of the following best describes your job?

[SINGLE ANSWER]

1. Occasional/Temporary
2. Internship
3. Fixed term contract
4. Permanent work contract

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q2b. A regular full-time job is around 40 hours per week, on average how many hours do you work per week in your current activity?

[SINGLE NUMERIC ANSWER - [1 to 100]

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q3. What type of organization are you working for?

[SINGLE ANSWER]

1. Self employed
2. Family business (including family farm)
3. Private sector (for profit)
4. Non-governmental Organizations (NGOs)
5. Public sector

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q4. In which sector do you work? **[if only profession is given, like engineering, consultancy please ask for the activity sector]**

[SINGLE ANSWER]

1. Agriculture, Livestock, Hunting, Forestry and Fisheries
2. Extractive industries
3. Manufacturing; Production/Distribution of Water, Electricity and Gas
4. Construction
5. Trade, Repair of Motor Vehicles
6. Restaurants and Similar (incl. Tourism)
7. Transportation, Warehousing
8. Information and Communication
9. Financial activities
10. Public administration, Defense and Social Security
11. Education
12. Health and Social Action
13. Real Estate Activities, Consulting Services, and Business Services

14. Other Services (incl. Art / Culture)
15. Other **[OE]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q4a. Do you have a written employment contract?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q4b. Is your work closely related to the area of your studies in university?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q5. What is your current monthly salary or income (after tax)?

[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN, if less than 500, repeat to make sure the question has been well understood; put zero for unpaid work]** **[PLEASE WRITE THE WHOLE AMOUNT]**
2. Doesn't earn

98. Refuse to say **[DO NOT READ]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q6. Are you registered in INSS, that is National Institute for Social Security?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q7. How long do you expect to stay in your current employment?

[SINGLE ANSWER]

1. _____ weeks **[1 to 4]** _____months **[0 to 12]** _____years **[0 to 5]**
2. 5 years or more

99. Don't know **[DO NOT READ; CLARIFY THIS IS NOT PERMANENTLY]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q8. Looking ahead to June 2019, how much do you expect to be earning per month (after tax) at that time?

[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT]**

98 Refuse to say **[DO NOT READ]**

99 Don't know **[DO NOT READ]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND IF Q8 IS CODE 1

Q8a. Is this earnings estimate based on working on a full-time or a part-time basis?

1. Full-time
2. Part-time

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND IF Q8 IS CODE 1

Q8b. Predictions of future income are typically made with some degree of uncertainty. What would you say is the probability that your salary in June 2019 would be higher than the estimate you just gave? Please give a value between 0 and 100 – for example, a probability of 5 means there is a very low chance of receiving a higher salary, 50 means there is a medium chance of receiving a higher salary, and 95 means there is a very high chance of receiving a higher salary.

1. _____ [0-100]

998 Refuse to say **[DO NOT READ]**

999 Don't know **[DO NOT READ]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB]

Q8c. And, what would you say is the highest salary (per month) you could possibly be earning by June 2019?

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT**

998 Refuse to say **[DO NOT READ]**

999 Don't know **[DO NOT READ]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL] – If "Personal initiative" is answered please clarify within the list below

Q9. How did you find your job?

[MULTIPLE CHOICE]

1. Through adverts in newspapers / radio / TV / poster
2. Through direct contact with employers (without adverts)
3. Through internship (before graduating)
4. Through internship (since graduating)
5. Through an employment center

6. Through recruitment agencies
7. Through internet / social media
8. Through friends and family / other people
9. I set-up business for myself / Continue family business **[Only shown if code 1 or 2 at Q3]**
10. Other **[OE]**

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q10. On a scale of 1-7, where 7 is very important and 1 is not at all important, please assess how important a role the following groups of people played in you obtaining your job

[SINGLE ANSWER PER ROW, RANDOMIZE ORDER OF ROWS]

		Not at all important						Very Important	Don't know
1	Your immediate family	1	2	3	4	5	6	7	99
2	Your extended family	1	2	3	4	5	6	7	99
3	Your close personal friends	1	2	3	4	5	6	7	99
4	Friends of the family	1	2	3	4	5	6	7	99
5	Former teachers or work colleagues	1	2	3	4	5	6	7	99

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q11. On a scale of 1-7, where 7 is very important and 1 is not at all important, please assess how important a role the following played in you obtaining your job:

[SINGLE ANSWER PER ROW, RANDOMIZE ORDER OF ROWS]

		Not at all important						Very Important	Don't know
1	The secondary school you attended	1	2	3	4	5	6	7	99
2	The university you attended	1	2	3	4	5	6	7	99
3	The course you took	1	2	3	4	5	6	7	99
4	The grades you got	1	2	3	4	5	6	7	99
5	Your language skills	1	2	3	4	5	6	7	99
6	Your appearance	1	2	3	4	5	6	7	99

7	Your performance in the job interview	1	2	3	4	5	6	7	99

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL]

Q12. Sometimes, people, who are looking for work need to pay someone to make sure they get a job. Have you ever been asked to pay? Please keep in mind that your answers stay strictly confidential.

[SINGLE ANSWER]

1. Yes
2. No

98. No answer

ASK IF Q1A IS 1 [WORKING] OR Q1B IS 1 [HAS REGULAR JOB] AND Q1E IS 2 OR 3 [NOT THE SAME WORK OR CAN'T RECALL] AND Q12 IS 1 [YES]

Q13. If yes, how much did you pay to secure your current job?

[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT]**

98. Refuse to say **[DO NOT READ]**
99. Don't know **[DO NOT READ]**

PART 2 NON-WORKING PEOPLE [INTERNAL TEXT]

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2

Q14. Are you attending academic or pedagogical education?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 AND IF Q14 IS 1 [YES]

Q15. What is the area of your studies?

[SINGLE ANSWER]

1. Education/teaching training
2. Humanities
3. Business, economy or management
4. Social sciences (other)
5. Technology (ICT etc.)
6. Natural sciences (other)
7. Engineering
8. Agriculture
9. Health
10. Other **[OE]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 AND IF Q14 IS 1 [YES]

Q16. What type of degree?

[SINGLE ANSWER]

1. Undergraduate degree
2. Master's degree
3. PhD
4. Professional certification
5. None

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 AND IF Q14 IS 1 [YES]

Q17. When do you expect to complete your studies?

[SINGLE ANSWER]

1. This year, _____months **[1 to 12]**
2. _____ year **[1 to 10]**

98. Refuse to say **[DO NOT READ]**
99. Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 AND IF Q14 IS 1 [YES]

Q18. Directly after completing your current studies, do you intend to look for work?

[SINGLE ANSWER]

1. Yes
2. No

PART 3 ALL [INTERNAL TEXT]

ASK ALL

Q22. Are you actively looking for work now (including new or additional employment)?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q22 IS 1 [YES]

Q23. How are you looking for work? **– If "Personal initiative" is answered please clarify within the list below**

[MULTIPLE ANSWER]

1. Through adverts in newspapers / radio / TV / poster
2. Through direct contact with employers (without adverts)
3. Through internship (before graduating)
4. Through internship (since graduating)
5. Through an employment center

6. Through recruitment agencies
7. Through internet / social media
8. Through friends and family / other people
9. Other **[OE]**

ASK IF Q22 IS 1 [YES]

Q24. Are you focusing on a specific sector in your job search:

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q22 IS 1 [YES] AND Q24 IS 1 [YES]

Q25. Which one? **[if only profession is given, like engineering, consultancy, please ask for the activity sector]**

[SINGLE ANSWER]

1. Agriculture, Livestock, Hunting, Forestry and Fisheries
2. Extractive industries
3. Manufacturing; Production/Distribution of Water, Electricity and Gas
4. Construction
5. Trade, Repair of Motor Vehicles
6. , Restaurants and Similar (incl. Tourism)
7. Transportation, Warehousing
8. Information and Communication
9. Financial activities
10. Public administration, Defense and Social Security
11. Education
12. Health and Social Action
13. Real Estate Activities, Consulting Services, and Business Services
14. Other Services (incl. Art / Culture)
15. Other **[OE]**

ASK IF Q22 IS 1 [YES]

Q26A. Since you have been looking for (new) work, have you declined any job offers?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q22 IS 1 [YES] AND Q26A IS 1 [YES]

Q26B. What is the main reason you have not yet accepted any of these job offers? **[if several reasons are given, please ask to focus on the mean reason]**

[SINGLE ANSWER]

1. Salary was too low
2. Working hours were not desirable (e.g., too few, too many, bad times)
3. Job was not in a desired area/sector
4. Job was in an undesirable location
5. Expect a better offer soon
6. Was asked to pay (too much) to secure the job
7. Still studying
8. Religious or social issues
9. Other **[OE]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES]

Q26. How soon do you expect to find work?

[SINGLE ANSWER]

1. In a week
2. In a month
3. In several months
4. In a year
5. In more than a year

99. Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES]

Q27. After finding new work, how much do you expect to earn in the first month? Please give us your estimation of a monthly salary or income. **[ADDITIONAL PROBING IF RESPONDENT CAN'T GIVE ESTIMATE IN MZN]**: Can you please try to make an estimate?

[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT]**

98 Refuse to say **[DO NOT READ]**

99 Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND IF Q27 IS CODE 1 AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES]

Q27a. Is your answer to the previous question based on working on a full-time or a part-time basis?

1. Full-time
2. Part-time

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS NO [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES]

Q28. Looking ahead to June 2019, and assuming you have found new work, how much do you realistically expect to be earning per month (after tax)? **[ADDITIONAL PROBING IF RESPONDENT CAN'T GIVE ESTIMATE IN MZN]**: Can you please try to make an estimate?
[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT]**
98 Refuse to say **[DO NOT READ]**
99 Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS NO [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES] AND IF Q28 IS CODE 1

Q28a. Is your answer to the previous question based on working on a full-time or a part-time basis?

1. Full-time
2. Part-time

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES] AND IF Q28 IS CODE 1

Q28b. Predictions of future income are typically made with some degree of uncertainty. What would you say is the probability that your salary in June 2019 would be higher than the estimate you just gave? Please give a value between 0 and 100 – for example, a probability of 5 means there is a very low chance of receiving a higher salary, 50 means there is a medium chance of receiving a higher salary, and 95 means there is a very high chance of receiving a higher salary.

1_____ [0-100]
998 Refuse to say **[DO NOT READ]**
999 Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND EITHER Q22 IS 1 [YES] OR Q18 IS 1 [YES]

Q28c. And, what would you say is the highest salary (per month) you could possibly be earning by June 2019?

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT**
98 Refuse to say **[DO NOT READ]**
99 Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS 2 [NO REGULAR JOB] AND

- **IF Q18 IS 2 [NO] AND Q22 IS 1 [YES]:** Why don't you intend to look for work directly after completing your current studies?
- **IF Q18 IS 1 [YES] AND Q22 IS 2 [NO]:** Why don't you actively look for a job now?
- **IF Q18 IS 2 [NO] AND Q22 IS 2 [NO]:** Why don't you actively look for a job now nor you intend to do it directly after completing your current studies?

[OPEN ANSWER]

1. Studying full-time
2. Caring for dependents (e.g., children)
3. Prohibited from working by husband
4. Prohibited from working by wife
5. Poor health (ill)
6. Handicapped
7. Given up (no jobs available)
8. Waiting to graduate / finishing thesis
9. Other **[OE]**

98. Refuse to say **[DO NOT READ]**
99. Don't know **[DO NOT READ]**

ASK IF Q1A IS 2 [NOT WORKING] AND Q1B IS NO [NO REGULAR JOB] AND EITHER Q22 IS 2 [NO] OR Q18 IS 2 [NO]

Q30. Do you expect to look for work in the future?

[SINGLE ANSWER]

1. Yes
2. No

ASK ALL

Q31. Are you currently taking any vocational or professional training?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q31 IS 1 [YES]

Q32. What type of vocational or professional training?

[SINGLE ANSWER]

1. Language
2. Business or management
3. IT/technology
4. Engineering (mechanical/electrical/chemical)
5. Driving / machine operation
6. Other **[OE]**

ASK IF Q31 IS 1 [YES]

Q33. Are you paying for this?

[SINGLE ANSWER]

1. Yes
2. No

ASK IF Q31 IS 1 [YES] AND Q33 IS 1 [YES]

Q34. How much do you pay per month? If the training was paid for more than a month, please estimate monthly amount.

[SINGLE ANSWER]

1. _____ MZN **[if needed, clarify with respondent if he/she speaks in '000 MZN] [PLEASE WRITE THE WHOLE AMOUNT]**
98 Refuse to say **[DO NOT READ]**
99 Don't know **[DO NOT READ]**

ASK ALL

Q35. Have you received any information about results from the earlier rounds of the survey?

	Yes	No
Through SMS messages	1	2
Attending public event	1	2
From friends or colleagues	1	2

ASK ALL

Q36. Thank you for your participation. For your participation this round we will add credits on your mobile account in the value of 50 MZN. You should receive this payment till the end of the day. Could you please confirm that we should send you this credit amount on this mobile phone, or please give us alternative number on which it should be sent:

1. I confirm that the credit should be sent on this number
2. Alternative phone number: _____**[NUMERICAL OE – check accuracy of the phone number]**