



# **Descriptive analyses of youth transitions in Tajikistan**

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# Contents

- 1. Introduction ..... 4
- 2. Education ..... 6
  - 2.1. Level of education enrolment when leaving education ..... 6
  - 2.2. Rates and reasons for completion and dropouts ..... 8
  - 2.3. Types of education programs and institutional characteristics ..... 11
  - 2.4. Social inequality in education attainment ..... 14
  - 2.5. Working before leaving education ..... 19
- 3. Labor market inactivity, job search and time until finding a first job ..... 25
  - 3.1. Labor market inactivity ..... 25
  - 3.2. Job search methods ..... 27
  - 3.3. Time until finding a first job ..... 28
  - 3.4. Obstacles in finding a first job ..... 33
- 4. Characteristics of first job ..... 35
  - 4.1. Type and quality of first job ..... 35
  - 4.2. Sector of first job ..... 42
  - 4.3. Methods of finding the first job ..... 44
- 5. Early career mobility ..... 47
  - 5.1. First job type and current activity status ..... 47
  - 5.2. Occupational mobility ..... 48
  - 5.3. Sectoral mobility ..... 49
- 6. Timing of life course transitions ..... 51
  - 6.1. Incidence and average age of experiencing central events in the transition to adulthood .. 51
  - 6.2. The timing of leaving education and finding a first job ..... 53
  - 6.3. The timing of leaving parental home ..... 55
  - 6.4. The timing and arrangement of first marriage ..... 58
  - 6.5. The timing of first parenthood ..... 64
- 7. References ..... 66

## List of abbreviations

BA	Bachelor
EACEA	Education, Audiovisual and Culture Executive Agency
GBE	General Basic Education
GSE	General Secondary Education
HEI	Higher Education Institution
ISCO	International Standard Classification of Occupations
MA	Master
n.a.	Data not available
PhD	Doctoral degree
TEW-CCA	Research project “Opportunities and Barriers at the Transition from Education to Work-A Comparative Youth Study in Azerbaijan, Georgia and Tajikistan” (funded by VolkswagenStiftung)
VET	Vocational Education and Training

## 1. Introduction

This working paper provides univariate and bivariate descriptive statistics on youth transitions in Tajikistan. It is part of a series of working papers characterizing youth transitions of countries in the Caucasus and Central Asia. It is based on research conducted in the project “Opportunities and Barriers at the Transition from Education to Work – A Comparative Youth Study in Azerbaijan, Georgia and Tajikistan” (TEW-CCA) that was financed by the VolkswagenStiftung in the period 2015–2019; funding initiative “Between Europe and Orient”, call “Institutional change and social practice. Research on the political system, the economy and society in Central Asia and the Caucasus”. The focus is on youth transition from education to work but also related youth transitions such as leaving parental home and family formation (marriage and childbirth) are considered.

As a prior or complementary reading to this descriptive report it is recommended to read the methodological report of the TEW-CCA Youth Transition Surveys (Gebel et al., 2019), which offers an overview of the general methodology, specifically the cross-national survey standards, a description of the target group and screening process as well as a detailed theory-driven and evidence based justification and explanation of the general logic and contents of the individual questionnaire. In addition, country-specific explanations of the methodology of the TEW-CCA Youth Transition Survey in Tajikistan can be found in the chapter of the methodological report of the TEW-CCA Youth Transition Survey on Tajikistan (Olimov et al., 2019). It contains detailed information on the process of questionnaire adjustments and translation, pretesting, interviewer recruitment and training, sampling procedures, fieldwork management, monitoring and quality control, and response rates as well as the questionnaires (in English, Tajik and Russian). Moreover, it is recommended to read the report on the institutional conditions that are seen as relevant for youth transition from education to work and related youth transitions such as family formation in Tajikistan (Ashurov, 2019). It contains an overview of the institutional setting of the education system, the labor market, and the family and welfare regime in Tajikistan. This knowledge of the country-specific institutional, structural and cultural setting is important to understand the logic of our analysis and operationalizations as well as to read the findings in the specific context of Tajikistan.

It should be noted that this descriptive report on youth transitions in Tajikistan is strongly oriented at the first report published by the TEW-CCA research consortium on descriptive analyses of youth transitions in Georgia (Badurashvili et al., 2019). Specifically, some technical explanations and the general framing in the scientific literature are taken word-by-word in order to underline that all reports on descriptive analyses of youth transitions of the TEW-CCA research consortium follow a highly standardized approach and were based on a common template. Hence, also the headings as well as the structure of tables and figures are identical. This should ease the reader to compare results across all reports on descriptive analyses of youth transitions of the TEW-CCA research consortium. The reports, of course, deviate in the description of results for each country.

This descriptive report is restricted to purely descriptive analyses. Next to investigating univariate descriptive statistics selected findings of bivariate relationships are studied. Bivariate analyses focus on key aspects of interest in the TEW-CCA project such as gender inequalities in education and work and other life course transitions, the relationship between education attainment and the job search process, the labor market entry and early career as well as other life course transitions.

Design weights were applied in all descriptive analyses. Specifically, each respondent was weighted with the inverse of the number of eligible persons in the same household. For details on the sampling process see the chapter of the methodological report of the TEW-CCA Youth Transition Survey on Tajikistan (Olimov et al., 2019). Whereas univariate analyses might be biased by gender-specific and education-specific unit non-response, the bivariate analyses can be expected to be less biased with respect to non-response patterns as we study the effects of gender and education.

In general, the bivariate analyses should only be interpreted as an associational analysis because no efforts have been made to account for confounding bias and/or endogenous selection bias when

studying the relationship between the independent and dependent variable. Further working papers as well as book chapters and academic journal publications of the TEW-CCA project will become available that aim at a better causal understanding using techniques of multivariate data analyses according to the logic of modern causal analysis. Therefore, we also refrain from giving any policy recommendations based on the descriptive analyses because this requires at least evidence based on multivariate analyses that account for confounding bias and/or endogenous selection bias.

Although the aim of this report is purely to deliver a description, it has not been the aim to study each variable available in the data set. A conscious choice has been made on studying key aspects of youth transition from education to work but also the related youth transitions such as leaving parental home and family formation (marriage and childbirth). The TEW-CCA Youth Transition Survey in Tajikistan offers even more information than the information that is provided in the following. Future users of scientific use files are encouraged to investigate all this information.

Chapter 2 of this report provides descriptive studies on education in Tajikistan. After giving a general overview on the level of education enrolment when the respondents left the education system (Section 2.1), Section 2.2 addresses rates and reasons for completion and dropouts in the education career of the respondent. Section 2.3 highlights the types of education programs and institutional characteristics, in which the respondents were enrolled. Section 2.4 investigates various dimensions of social inequality (inequality according to gender, ethnic origin and social origin) in education attainment. In Section 2.5 we describe work activities that respondents performed before leaving education.

Chapter 3 investigates the transition process from education to work after leaving education. Section 3.1 is devoted to the topic of labor market inactivity in terms of its incidence and determinants. As a certain proportion of education leavers, especially, women neither have found a job nor engage in active job search this topic of “school-to-home transition” deserves a special attention. In Section 3.2 we report which kind of job search methods were used by active job seekers in Tajikistan. In Section 3.3 we study the time elapsed until finding a first job in a dynamic perspective with means of Kaplan-Meier estimates of survivor functions that take the right-censoring of the duration data into account. Section 3.4 highlights obstacles in finding a first job that were reported by the respondents based on their experiences.

Chapter 4 describes the characteristics of the first job after leaving education. In Section 4.1 we differentiate between different types of first jobs in terms of formal (registered) jobs, informal (unregistered) jobs outside the family business, being employee or helper in the family business or starting the working career as an own account worker, self-employed or employer. The quality of first employment is investigated in terms of the type of contract, existence of employer provided free health insurance coverage and the occupational level. In Section 4.2 we characterize the sectoral distribution of first jobs by differentiating various industries as well as by considering the private versus public ownership structure of the company/institution. In Section 4.3 we analyze the method of finding the first job.

Chapter 5 addresses the early career mobility by comparing the first job and the current activity status at the time of the interview (Section 5.1), measuring the occupational mobility between the first and current job (Section 5.3) as well as the sectoral mobility between the first and current job (Section 5.3).

In Chapter 6 we broaden the perspective on the transition from education to work by studying the timing of other life course transitions as well. Specifically, we consider the events of leaving education, leaving parental home, finding a first job, getting married and getting parent for the first time. In Section 6.1 we describe the incidence and average age of experiencing central events in the transition to adulthood. In the following sections we offer more in-depth studies of the various youth transition events. In Section 6.2 we complement our findings from Chapter 2 and 3 by giving information on the timing of leaving education and finding a first job. We study the timing of leaving parental home in Section 6.3, the timing and arrangement of first marriage in Section 6.4 and, finally, the timing of first parenthood in Section 6.5.

## 2. Education

### 2.1. Level of education enrolment when leaving education

Table 2.1 shows the level of education enrolment when the respondents left education. As explained in detail in the methodological report of the TEW-CCA Youth Transition Surveys (Gebel et al., 2019) the target group is defined as individuals living in Tajikistan at the time of the survey and aged 18–35 who finished or stopped formal education in the period from 1 January 2006 till 31 December 2015.<sup>1</sup> Thus, both persons who successfully completed their last education and those who failed/dropped out were included. In the following, we investigate the level of education enrolment when leaving education, i.e. the highest level of education the respondent was enrolled in, irrespectively of whether he or she successfully completed this level or not.

The school system in Tajikistan is divided into primary education (four years; ages 6–10), basic education (“lower secondary”) ending with General Basic Education (GBE – 9th Grade) (5 years; ages 10–15) and secondary general education (“upper secondary”) ending with General Secondary Education (GSE –11th Grade) (two to four years; ages 15–16/18). Education is mandatory up to the end of General Basic Education (GBE – 9th Grade). The vocational education and training (VET) system operates at two levels. Primary VET is either offered as a one-year program after the GSE (providing access to tertiary education), as 1–2 year programs after GBE (without granting access to tertiary education), or in combination with general secondary education (2–3 years duration). Secondary VET is either offered as a 4-year program offers in parallel to the GSE and, thus, gives access to tertiary education or as 1–3 year program after GSE. University education in Tajikistan is organized in a three-cycle degree system with Bachelor (BA), Master (MA) and Doctoral (PhD) degrees. The only exception is medical higher education that is offered in a 6-year one-cycle study program. For further information on the education system of Tajikistan, see Ashurov (2019).

Table 2.1 reveals a bipolar education distribution in Tajikistan. 13.7% of all respondents leave education just from basic education or below and a large proportion (42.5%) left education from the level of upper secondary education.<sup>2</sup> At the same time, 31.7% of all respondents reached the tertiary level of education. Particularly, 14.0% were enrolled in lower tertiary (BA) studies and even 17.1% were enrolled at higher tertiary (MA) level. Among all education leavers doctorate students represent less than 1%.<sup>3</sup> In between the two poles of secondary and tertiary education there is a small number of education leavers who were enrolled in the vocational education and training (VET). It’s overall size is small as just 12.2% were enrolled at that level when leaving education. Specifically, 2.6% were enrolled in initial professional education and 9.6% were enrolled in secondary professional education. The TEW-CCA Youth Transition Survey in Tajikistan asked respondents who were enrolled in professional education when leaving education to report the education track attended before entering professional education. Analyses on this question (not displayed in tables) reveal that among the respondents that were enrolled at the level of initial professional education 34.7% reached 11<sup>th</sup> Grade of upper secondary education, 1.1% was just enrolled at 10<sup>th</sup> Grade of upper secondary education and the majority (64.2%) have attained basic education (9<sup>th</sup> Grade) before enrolling into initial professional education. Among persons that were enrolled at the secondary professional education, the great

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<sup>1</sup> “Finishing education” has to be interpreted as “successful completion/graduation” of the *last* education program the respondent was enrolled into and “stopping education” has to be interpreted as “failing/dropping out” from the *last* education program the respondent was enrolled into (Gebel & Mandieva 2019).

<sup>2</sup> Just 0.2% of men and 0.6% of women report that they were enrolled just at primary education level when leaving education. In view of this small percentage this group is merged with persons enrolled at basic secondary education for the following analyses.

<sup>3</sup> For this reason and in order to have a clear presentation of results, this group is merged with the group of students from MA studies in the following analyses.

majority (75.4%) tell that the attended secondary vocational education after 11<sup>th</sup> Grade (GSE). Just 14.1% say that they attended secondary vocational education after 9<sup>th</sup> Grade (GBE).<sup>4</sup>

The gender-specific results in the first two columns of Table 2.1 reveal that men reach on average higher education levels than women. Whereas just 12.4% of women reach higher tertiary (MA/PhD) education, this applies to 22.6% of men. Men also reach more often the lower tertiary (BA) level of education (men: 19.3% vs. women: 8.1%). In contrast, 68.0% of women but only 45.3% of men were enrolled at primary or secondary level of education. The VET system is more mixed. Men dominate the initial professional education level with enrollment rates of 4.2% compared to 0.9% for women when leaving education. Women are slightly overrepresented at the secondary professional education level with enrollment rates of 10.7% compared to 8.5% for men when leaving education.

**Table 2.1: Level of education enrollment when leaving education, by gender, column-%**

	Men	Women	Total
Primary	0.2	0.6	0.4
Basic secondary	9.0	18.0	13.3
Upper secondary	36.1	49.4	42.5
Initial professional	4.2	0.9	2.6
Secondary professional	8.5	10.7	9.6
Lower tertiary (BA)	19.3	8.1	14.0
Higher tertiary (MA)	22.1	11.7	17.1
Graduate (Doctorate/Aspirantura)	0.5	0.7	0.6

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

In education research it is argued that education careers are sometimes not in a straight line because people change their field of studies, make several degrees, decide to do secondary professional education after tertiary education, or do secondary professional education first and then tertiary education. It has been shown that this phenomenon influences the later labor market chances in Germany, for example (Edeling & Pilz, 2017). However, this seems to be a very minor phenomenon in the case of Tajikistan.<sup>5</sup> The TEW-CCA Youth Transition Survey in Tajikistan asked all respondents with post-secondary education to list all additional post-secondary education programs that they followed before or after reaching the highest level of education enrollment. Analyses of this information (not displayed in tables) show that, among persons enrolled at secondary professional education, nobody attended tertiary education before. Thus, professional education is not seen as an alternative after completing or dropping out from tertiary education. Among those who were enrolled in lower tertiary (BA) education 1.0% report that they completed another post-secondary education degree in terms of secondary professional degree before going to university. Similarly, just 0.2% of those enrolled in higher tertiary education (MA) completed another undergraduate (BA) degree (in terms of multiple tertiary education studies in addition to the one that brought them to MA studies) and just 1.3% of respondents enrolled in higher tertiary education (MA) completed a secondary professional degree.

<sup>4</sup> Most of the remaining 10.5% tell that they attended specialized institutes for their secondary professional education. Cross-tabulating this group with the field of study shows that this is predominately in health. Doing a secondary professional education in health in a specialized institute, especially in health, is a rather new way of getting secondary professional education. As these institutions usually require a GSE one can assume that this group predominately belong to the ones that attended secondary professional education after 11<sup>th</sup> Grade (GSE).

<sup>5</sup> Although the question and the answer categories explicitly ask to report unsuccessful further education enrollments as well (Gebel et al. 2019), there might be some underreporting of such unsuccessful previous attempts in the education system. Nevertheless, the figures speak in favor that the phenomenon of non-linear education careers as observed in Western European countries is not of great relevance in Tajikistan.



Hence, we can conclude that a secondary professional degree is a completely parallel education track that is usually not followed in preparation of a tertiary degree or attended afterwards.

**2.2. Rates and reasons for completion and dropouts**

Table 2.2 provides information on the completion and dropout rates by the level of education enrollment for female and male education leavers. On average, across all education levels, just 5.7% of men and 4.9% of women dropout from the last education level they were enrolled in when leaving education. The highest dropout rate is observed at basic secondary education for both men (10.9%) and women (16.9%). Relatively high dropout rates are also registered in lower tertiary (BA) education. 8.8% of men and 7.2% of women who were enrolled in the lower tertiary (BA) education did not successfully complete this education level at the time of leaving education. Men also dropout relatively often from secondary professional education (9.3%). In contrast, dropout rates are very low for initial professional education (0.0% for both gender), upper secondary education (4.7% for men and 1.7% for women) as well as higher tertiary (MA/PhD) education (2.3% for men and 0.5% for women).

**Table 2.2: Completion and dropout rate by level of education enrollment when leaving education, by gender, column-%**

	Men		Women	
	Completion	Dropout	Completion	Dropout
Basic secondary	89.1	10.9	83.1	16.9
Upper secondary	95.3	4.7	98.4	1.7
Initial professional	100.0	0.0	100.0	0.0
Secondary professional	90.7	9.3	96.8	3.2
Lower tertiary (BA)	91.2	8.8	92.8	7.2
Higher tertiary (MA/PhD)	97.7	2.3	99.5	0.5
Total	94.3	5.7	95.1	4.9

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remark: "Completion" includes the case that the respondent completed the respective education program and obtained a certificate as well the case that the respondent completed the respective education program and has not yet obtained the certificate. The latter case accounts for the phenomenon that the administrative process of handing over the certificate takes some time after graduation. "Dropout" just includes the respondents who attended the respective education level but did not complete it.

Table 2.3 displays reasons for leaving education after successfully completing the respective education level by the level of education enrollment and gender. The questionnaire allowed respondents to give multiple reasons. This analyses is restricted to lower levels of education because the graduates from secondary professional, undergraduate and graduate education were not asked this question because it is not meaningful at higher education levels. Thus, the focus is here on early education leaving, i.e. after successfully completing lower education degrees.

In terms of education-related reasons more male than female secondary and initial professional graduates say that the reason for not continuing at higher education levels was because they were tired of studying. For example, 16.1% of male basic secondary graduates report that they were tired of studying compared to just 8.3% of their female basic secondary graduates. The phenomenon of being tired of studies is less spread among initial professional graduates (men: 5.1%, women: 0.0%). 26.5% of male and 14.3% of female basic secondary graduates report as the reason for leaving education that they thought they cannot succeed in education anymore. This reasons is given less often by upper secondary and initial professional graduates. Interestingly, very few graduates blamed

the low quality of education as a reason for not continuing to higher education. The highest rate is found for male basic secondary graduates (9.7%) followed by female basic secondary graduates (4.9%), whereas all upper secondary and initial professional graduates have low rates (below 4%). Not passing the exam that gives access to the next education level is rarely mentioned (by less than 6% of the upper secondary and initial professional graduates). The problem of not finding a school of the next education level nearby is reported by almost every fifth female basic secondary graduate but almost never by male basic secondary graduates. Hence, limited geographical mobility seems to be more an issue for women in Tajikistan. More male than female secondary and initial professional graduates did not see a reason for further education. For example, this applies to 26.5% of male basic secondary graduates and just to 12.0% of female basic secondary graduates as well as to 13.9% of male initial professional graduates but no female initial professional graduate. A major reason for not continuing education are the financial burdens of doing so. This applies especially to men. About every third male basic secondary and initial professional graduates as well as almost every second male upper secondary graduate say that they or their family were not able to pay for further studies.

**Table 2.3: Reasons for leaving education after successfully completing the respective education level, by level of education enrollment and gender, column-%**

	Basic sec.		Upper sec.		Init. Prof.	
	M	W	M	W	M	W
You were tired of studying	16.1	8.3	9.4	6.8	5.1	0.0
You thought that you cannot succeed in education anymore	26.5	14.3	14.3	6.8	8.9	6.3
Because of the low quality of education	9.7	4.9	3.1	3.5	3.8	0.0
You did not pass the exam that gives access to the next education level	n.a.	n.a.	4.9	5.7	5.1	0.0
There was no school of the next education level nearby	1.9	18.4	0.6	3.6	6.3	0.0
You did not see a reason for further education	26.5	12.0	8.0	7.8	13.9	0.0
You/Your family was not able to pay for your further studies	32.3	23.3	49.8	36.5	36.7	0.0
You wanted to work	21.3	3.0	22.3	3.0	25.3	6.3
You needed to work	18.1	0.0	20.4	2.6	29.1	18.8
You got married	0.6	9.4	2.3	25.8	1.3	56.3
You had to care for other household members	1.9	10.2	3.8	3.5	0.0	37.5
Because of religious or cultural reasons	0.0	1.5	0.0	0.6	0.0	0.0
Your family wanted you to stop education	3.9	45.9	7.5	35.7	2.5	25.0
Due to health issues	1.3	4.5	1.5	1.0	3.8	0.0
You went abroad	n.a.	n.a.	n.a.	n.a.	5.1	0.0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Multiple answer categories were allowed, i.e. column-% do not add up to 100%. M – men, W – women, n.a. – answer option was not offered for this education level.

Especially, men claim work-related reasons for dropping out of education. For example, the share of men who said that did not continue education because they wanted to work is 21–25% for the three lowest education groups. 18 to 29% of male graduates from lower education level reported that they needed to work. The respective shares are much lower for low educated female graduates. For women, family related factors are the main reason for not continuing further education. A major obstacle for not continuing education was marriage in view of the female respondents from lower education levels. For example, 9.4% of female basic secondary graduates, 25.8% of female upper secondary graduates and 56.3% of female initial professional graduates reported marriage as the reason for not continuing to higher education levels. Care for other household members does not play a big role for women graduating from secondary education (incidence of 10% or below) but for female initial professional graduates (incidence of 37.5%). For almost no men marriage or care for other household members is a reason for not continuing at higher education levels, which shows the clear

gender division in the reasons for leaving education at lower education levels. Interestingly, religious and cultural reasons of not continuing at higher education levels were almost never explicitly reported. However, a large proportion of young women but not men say that their family wanted them to stop education. This share drops with the level of education, e.g. from 45.9% for female basic secondary graduates to 25.0% for female initial professional graduates. Health and migration reasons were also almost never mentioned among men and women.

Table 2.4 displays reasons for leaving education among dropouts, i.e. those respondents who attended the respective education level but did not complete it. The questionnaire allowed respondents to give multiple reasons. Regarding education-related factors, 9.3% of all male dropouts and 3.5% of all female dropouts state that they were simply tired of studying. 7.4% of male and 9.4% of female dropouts explained that they thought that they could not succeed in further education. A much larger share of male dropouts mention the low quality of education (12.0% of male dropouts vs. 2.4% of female dropouts). Similarly, the problem of not passing the exam that gives access to the next education level is reported by 22.2% of male dropouts but only by 5.9% of female dropouts. 8.3% of male dropout compared to just 2.4% of female dropouts seemed not having had a long-term perspective in education because they say that they did not see a reason for further education. Similarly to graduates (see Table 2.3) many dropouts, around one third of all male and female dropouts, say that they and/or their families were not able to pay for further studies (see Table 2.4).

**Table 2.4: Reasons for leaving education among dropouts, by gender, column-%**

	Total	
	M	W
You were tired of studying	9.3	3.5
You thought that you cannot succeed in education anymore	7.4	9.4
Because of the low quality of education	12.0	2.4
You did not pass the exam that gives access to the next education level	22.2	5.9
You did not see a reason for further education	8.3	2.4
You/Your family was not able to pay for your further studies	34.3	32.9
You wanted to work	9.3	5.9
You needed to work	20.4	3.5
You got married	0.0	10.6
You had to care for other household members	6.5	12.9
Because of religious or cultural reasons	0.0	1.2
Your family wanted you to stop education	5.6	30.6
Due to health issues	9.3	10.6
You went abroad	16.7	0.0

*Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.*

*Remark: Multiple answer categories were allowed, i.e. column-% do not add up to 100%. Due to the overall small number of dropouts the analysis of reasons for dropping out of education were not differentiated by the last education level enrolled in.*

Men blame more often work-related reasons for dropping out of education than women. For example, 9.3% of male dropouts but only 5.9% of female dropouts say they wanted to work and the gender-gap is even more pronounced in the need of work (men: 20.4%; women; 3.5%). In contrast, family related factors are also a reason for dropping out for women but rarely reported among men. Particularly, 10.6% of female dropouts say the dropout reason was they got married and 12.9% of them say the dropout reason was that they had to care for other household members. While almost no one directly

blames religious or cultural reasons for dropping out from education, the pressure from the family to stop education is mentioned by 30.6% of women. This is clearly a gender issue as just 5.6% of male dropouts tell the same reason. Health issues were mentioned by about 10% of male and female dropouts. The reason of going abroad was given only by men (16.7%) but never by women.

### 2.3. Types of education programs and institutional characteristics

Table 2.5 offers information on the organization and duration of training by the level of professional education enrolment. Specifically, the organizational arrangement of the vocational training is seen as a policy-relevant factor that is expected to affect the transition from education to work (see Chapter 3 and 4) (Breen, 2005; Kogan et al., 2011; Noelke & Horn, 2014; Shavit & Müller, 2000; Wolbers, 2007).

We find that the great majority (84%) of persons that attended initial professional level received solely/mainly school-based vocational training, whereas only 16% were enrolled in the dual system of vocational training (, i.e. the combination of school and work place based training) and nobody was mainly trained at the work place. The dominance of solely/mainly school-based vocational training is slightly less pronounced at the secondary professional level. 67% of secondary professional were trained solely/mainly school-based, 17% got dual training and 3% got mainly workplace-based training.<sup>6</sup>

As can be seen in the lower part of Table 2.5 there are clear differences with regard to the duration of VET at the initial and secondary professional level. VET programs at initial professional level are of shorter duration. Almost every second initial professional student got VET of three years duration, whereas 31% got two years VET and 21% got one year of VET. Almost every second secondary professional student also report that he or she got three years of training. However, there are also 16% of secondary professional students with four years of training. A shorter VET duration is observed for 8% of secondary professional students with one year of VET and 17% of secondary professional students with two years of VET.

**Table 2.5: Organization and duration of training, by level of professional education enrollment**

	Init. Prof.	Sec. Prof.
<i>Organization of training</i>		
Vocational education mainly (or solely) school based	84	67
Combination of school and work place	16	17
Vocational education mainly work place based	0	3
Don't know/refusal	0	13
<i>Duration of VET</i>		
1 year	21	8
2 years	31	17
3 years	47	47
4 years	1	16
5 years	0	1
Don't know/refusal	0	11

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

<sup>6</sup> In addition, there are 13% at secondary professional levels with missing values. Specifically, 3% are due to real missings, whereas 10% are due to the classification of a few secondary professional graduates as attending specialized institutes in question Q220. Hence, they were not directed to the question on the organization of VET and the duration of VET because at the timing of questionnaire filtering we were not aware of this very small and new form of doing secondary professional education in specialized institutes (especially in health studies).

Besides the vertical level of education, the horizontal line of education differentiation across the field of study is important for those attending any post-secondary education. The field of study has been shown to be an important institutional dimension of horizontal differentiation in the post-secondary education system affecting the transition from education to work (Kogan et al., 2011; Noelke et al., 2012; Baranowska-Rataj & Unt, 2012). Table 2.6 shows the distribution of field of studies by the level of post-secondary education enrollment and gender. Among women the dominant field is health and welfare at secondary professional level (67%) as well as education at lower tertiary (BA) level (53%) and at higher tertiary (MA/PhD) level (45%). At the tertiary level, studies in social sciences, business and law are also popular among female students (BA: 27%, MA/PhD: 31%). Male students at secondary professional level primarily study health and welfare (29%), services (27%) and engineering, manufacturing and construction (16%). At the tertiary level, men mainly study social sciences, business and law (BA: 33%, MA/PhD: 44%), education (BA: 25%, MA/PhD: 18%) and engineering, manufacturing and construction (BA: 13%, MA/PhD: 15%).

**Table 2.6: Field of study, by level of post-secondary education enrollment and gender, column-%**

	Sec. Prof.		Low. Tert.		High. Tert.	
	M	W	M	W	M	W
Education	10	18	25	53	18	45
Humanities and arts	1	3	4	7	2	6
Social sciences, business and law	3	2	33	27	44	31
Science	6	2	11	4	7	7
Engineering, manufacturing and construction	16	1	13	0	15	2
Agriculture	7	1	6	0	4	1
Health and welfare	29	67	4	6	6	7
Services	27	6	4	2	3	0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Table 2.7 gives insights into the study arrangements, sources of funding and ownership of education institutions at the post-secondary education level. The distinction of full-time, part-time and per correspondence studies is seen as relevant for the transition from education to work since part-time and per correspondence students tend to have less time to follow skill instructions due to the double burden of studies and work, care or other obligations (Gebel & Baranowska-Rataj, 2012). In terms of study arrangements the great majority of post-secondary students (81-87%) follows full-time studies. Just a minor proportion studies in part-time, which share is relatively highest at the higher tertiary level (MA/PhD) (18%). Studying per correspondence, which was more popular during Soviet times and the early years of the transformation period, lies below the level of 1%.

Sources of funding and ownership of education institutions capture the privatization and marketization of education, which is seen as an additional line of differentiation in the education system (Gerber & Cheung, 2008; Shwed & Shavit, 2006; Gebel & Baranowska-Rataj, 2012). The TEW-CCA Youth Transition Survey in Tajikistan in general differentiates between state-budgeted students, i.e. students who are free of payment of tuition fees<sup>7</sup>, and contract-based students, i.e. students who have to pay tuition fees. Among state-budgeted students there is a distinction between those students who receive in addition a scholarship and those who do not. There are various reasons and programs for receiving a scholarship. For example, there are presidential and nomination scholarships to support

<sup>7</sup> According to Article 6 of the Education Act in Tajikistan, state-budgeted financing is devoted to disadvantaged groups, such as students from mountainous, inaccessible areas, as well as students studying certain field of studies required in local areas (Ashurov 2019; EACEA 2017).

the most successful students. Also, according to Article 45 of the Education Act of Tajikistan, heads of administrations in rural areas and cities can provide scholarships for students with an obligation to return after studies and work in their region of origin. Moreover, the program of "presidential quotas" is in existence since 1997 that provides scholarships for girls from remote rural area to bring them to higher education. Since 2007, the quota has been allocated as a concession to address the shortage of specialists in remote areas of the country. Quota students receive a state scholarship for one semester and this is prolonged or stopped depending on the academic performance. Furthermore, excellent contract-based students can be exempted from tuition, become state-budgeted and receive a scholarship.

Analyses show that sources of funding differ between the levels of post-secondary education enrolment. At the secondary professional level, 42% get state-budgeted financing with a scholarship and 32% get state-based financing without a scholarship, whereas 25% had to finance their studies by themselves or their parents. The share of students who had to finance their studies by themselves or their parents increases with the level of education. It reaches 37% for lower tertiary (BA) students and 45% for higher tertiary (MA/PhD) students. There are also many tertiary students who receive state-budgeted finance with a scholarship (37–39%). The share of state-budgeted students without a scholarship is much lower at the tertiary education level (18–23%) than the secondary professional education level.

**Table 2.7: Study arrangement, source of funding, by level of post-secondary education enrollment, column-%**

	Sec. Prof.	Low. Tert.	High.Tert.
<i>Study arrangement</i>			
Full-time student	87	83	81
Part-time student	13	16	18
Per correspondence	0	0	0
<i>Source of funding</i>			
State budgeted financing with scholarship	42	39	37
State budgeted financing without scholarship	32	23	18
Contract-based (paid by yourself or parents)	25	37	45

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Regarding the ownership of the education institution attended by students it turns out that the overwhelming majority of 99% of respondents of tertiary students were enrolled in a public HEI, which provide the education free of charge. Just 1% is enrolled at private education institutions. At the secondary professional level there is even a 100% incidence of public education.

**Table 2.8: Study arrangement, ownership of education institution, by level education enrollment, column-%**

	Sec. Prof.	Low. Tert.	High.Tert.
Public education institution	100	99	99
Private education institution	0	1	1

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

## 2.4. Social inequality in education attainment

Table 2.9 presents results on various dimensions of social inequality in education attainment. Education attainment, in contrast to education enrollment (see Chapter 2.1), is defined as the highest level of education successfully completed when leaving education. Hence, respondents who dropped out from education, i.e. without successful completion, were assigned the prior education level they attended.<sup>8</sup>

The gender-specific results in the first two columns of Table 2.9 show a clear gender inequality in education attainment in favor of men in Tajikistan. Women are overrepresented in basic secondary education (or less) and upper secondary education. In contrast, men clearly surpass their female counterparts at the tertiary level of education. They reach both lower tertiary (BA) and higher tertiary (MA/PhD) degrees with a 10 percentage point higher probability than women. The gender composition is more mixed at the professional education level. Men dominate at the initial professional education level and women dominate at the secondary professional education level.

There is also a clear ethnic inequality in education attainment. In the TEW-CCA Youth Transition Survey in Tajikistan 89.6% of the respondents define themselves as Tajik. The largest ethnic minority groups among the respondents are Uzbek (10.2%). Kyrgyz and Russians represent together 0.2% of the survey population. Ethnic minorities are overrepresented at the lower education degrees of basic secondary (or less) and upper secondary. For example, 51% of ethnic minorities get an upper secondary degree but only 42% of the ethnic majority. Both groups are equally represented (3%) at the initial professional education level. There is a higher probability for ethnic minorities to get a secondary professional degree than for the ethnic majority (12% vs. 9%). However, only a small fraction of ethnic minorities reach lower tertiary (BA) (9%) and higher tertiary (MA/PhD) (9%), whereas 14% of the ethnic majority earns a lower tertiary degree (BA) and 18% earn a higher tertiary degree (MA/PhD).

Next to gender and ethnic inequalities in education attainment we study the influence of the family of origin on educational attainment. Specifically, we investigate correlations of parental education, employment and occupation status and wealth with the education attainment of the respondent. The questions on the parental background refer to the parental situation at the age of 15 of the respondents. This is a proxy measure for the situation at the parental home during the childhood and youth (for a detailed justification of the timing of measurement and indicators used, see Gebel & Mandieva (2019)).

The first dimension of parental resources we consider is parental education, which can be mainly seen as a measure for cultural capital that provides information advantages and support for young people to pursue a successful academic and work career. In the following bivariate analyses we consider parental highest education level, being it the one of the mother or the father. A strong degree of intergenerational inheritance of education degrees is visible.

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<sup>8</sup> That is, basic secondary dropouts were coded as primary education. Upper secondary dropouts were coded as basic secondary. However, as the share of persons with primary education is so low, they are grouped with lower secondary education graduates for the following analysis. There were no initial professional dropouts. Dropouts from secondary professional education were assigned to the upper secondary education level as they all reported that they attended general secondary education as their prior level. Moreover, analysis on education enrolment in Section 2.1 revealed that the great majority (75.4%) of persons enrolled in secondary professional education finished an upper secondary degree (GSE) beforehand. Nevertheless, there might be a few misclassifications as question Q226 does not distinguish the prior levels of basic and upper secondary education. The lower tertiary (BA) dropouts all reported that their last level of education was secondary education. Although, as before Q226 does not distinguish the prior levels of basic and upper secondary education, we can make the secure assumption that their prior level was upper secondary education because the GSE is a prerequisite to get access to tertiary education in Tajikistan (Ashurov 2019). Higher tertiary (MA) dropouts were coded on undergraduate (BA) based on the secure assumption that a BA degree (or equivalent) is needed to get to the MA level. There is no dropout from the PhD level.

**Table 2.9: Social inequality in education attainment, row-%**

	<=Basic sec.	Upp. Sec.	Init. Prof.	Sec. Prof.	Low. Tert.	High. Tert.
<i>Gender</i>						
Men	11	37	4	8	18	22
Women	19	49	1	10	8	12
<i>Ethnic origin</i>						
ethnic majority	15	42	3	9	14	18
ethnic minority	16	51	3	12	9	9
<i>Highest level of parental education</i>						
Basic secondary or less	29	48	2	5	5	11
Upper secondary	20	52	1	7	10	9
Initial or secondary professional	14	43	4	13	14	12
Tertiary education	7	33	3	8	16	33
<i>Parental wealth</i>						
fairly well off/well	12	36	1	9	15	27
around the average	15	43	3	10	13	16
fairly poor/poor	23	54	2	6	9	6
<i>Father's employment and occupation</i>						
Employee ISCO 1-2	6	33	1	8	20	32
Employee ISCO 3-4	7	34	1	10	18	30
Employee ISCO 5	21	39	7	8	12	13
Employee ISCO 6	15	50	6	9	9	10
Employee ISCO 7-9	16	45	3	10	13	12
Own account worker/self-empl/employer	15	51	0	9	11	13
Unemployed	22	49	4	7	9	9
Home duties	23	59	0	0	9	9
Unable to work due to illness	18	42	5	5	14	16
Retired	19	46	3	10	8	14
<i>Mother's employment and occupation</i>						
Employee ISCO 1-2	3	28	4	14	19	33
Employee ISCO 3-4	10	27	2	13	20	28
Employee ISCO 5	24	32	3	12	9	19
Employee ISCO 6	13	48	7	5	12	14
Employee ISCO 7-9	15	40	4	15	14	12
Own account worker/self-empl/employer	22	45	1	7	9	16
Unemployed	20	54	1	3	9	13
Home duties	16	46	2	7	13	16
Unable to work due to illness	19	65	7	5	5	0
Retired	8	63	3	13	0	15
<i>Number of siblings</i>						
0 siblings	11	43	2	12	10	22
1 sibling	17	41	4	6	10	21
2 siblings	15	40	3	7	15	19
>=3 siblings	15	44	2	10	13	17
<i>Living arrangements during childhood</i>						
Lived with two parents	14	43	3	9	14	17
Lived with less than two parents	25	40	1	9	6	19

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.



*Remarks: Definition of ISCO levels: legislator, official, manager (ISCO-1), professional (ISCO-2), technicians, associate professional (ISCO-3), clerk (ISCO-4), service workers, shop or market sales workers (ISCO-5), skilled agricultural or fishery workers (ISCO-6), craft and related trades workers (ISCO-7), plant, machine operators and assemblers (ISCO-8), elementary occupations (ISCO-9). Results for some parental activity types not displayed (“–”) in case of too small number of cases.*

29% of respondents whose parents had a basic secondary education (or lower) degree also end up in the lowest education group, whereas this applies only to 7% of the respondents with at least one parent with tertiary education. Among respondents with parents with upper secondary education just 20% end up in basic secondary education or less. The great majority of this group (52%) reaches the same education level as their parents. Respondents with higher parental education degrees attend upper secondary education less frequent. For example, among respondents from the most privileged education backgrounds, i.e. having at least one parent with tertiary education, 33% end up in upper secondary education. Persons with parents with professional education or tertiary education are slightly overrepresented at the professional education levels. A pattern of intergenerational transmission of professional education attainment is visible because persons with professionally trained parents have the highest probability to get a professional degree, too. Students whose parents have professional education have even chances to get a lower tertiary (MA/PhD) degree that are almost the same as the respective chances of respondents with tertiary educated parents. However, respondents with parents with tertiary education have the clearly the best chances to graduate from higher tertiary (MA/PhD) education (33%), whereas the respective shares are just 9% to 12% among respondents with lower parental education background.

The advantages of persons from privileged family of origins is also visible with regard to the association of parental wealth and education attainment. Parental wealth can be seen as a measure of parents' economic capital. Respondents were asked to subjectively assess the overall financial situation of the family when he or she was 15 years old. Five answer categories were distinguished that were merged to the three categories (1) (fairly) well, (2) average wealth and (3) (fairly) poor wealth. Next to parsimoniousness the reason for merging categories was that 60.2% of respondents defined themselves as coming from average wealth backgrounds. Results displayed in Table 2.9 show that, for example, respondents who assessed the financial wealth of their parents as (fairly) poor ended up in basic education (23%) more often than respondents who reported a (fairly) well parental wealth (12%). Sharp discrepancies according to parental wealth also exist at the upper secondary education level. The opposite picture emerges at tertiary level, where 27% of the respondents from richer families reach a MA or PhD degree, whereas this applies to only 16% of the respondents from families of average financial wealth and 6% of the respondents from poorer families. There is no clear relationship between parental wealth and professional education attainment. Respondents with parents with average wealth have the highest probability to get a professional degree.

There is a relationship between parent's employment and occupation situation (measured at age 15 of the respondent) and the education attainment of the respondent. Parent's employment and occupation position can also be seen as a measure of the economic capital but also social capital of the family of origin when it comes to the analysis of education attainment. Among respondents whose father was employed, there is a weak tendency, with few exceptions, that the lower the ISCO level, the higher is the probability of ending up with basic or upper secondary education and the lower is the probability of reaching tertiary education. For example, 32% of respondents whose father was a legislator, official, or manager (ISCO-1) or professional (ISCO-2) and 30% of respondents whose father was technicians or associate professional (ISCO-3) or clerk (ISCO-4) reached a MA or PhD degree, whereas the share is just 10–13% for respondents with fathers working as service workers, shop or market sales workers (ISCO-5), skilled agricultural or fishery workers (ISCO-6), craft and related trades workers (ISCO-7), plant and machine operators and assemblers (ISCO-8) or elementary occupations (ISCO-9). There is also an advantage for ISCO-1–4 groups for getting a lower tertiary (BA) degree but the advantage is just about 10 percentage points compared to an advantage of about 20 percentage

points with regard to higher tertiary (MA/PhD) degrees. Respondents with fathers from ISCO-1–4 groups just have a probability of 6–7% for getting a basic secondary degree but this applies to 21% of respondents with fathers in ISCO-5 and 15–16% for fathers in ISCO-6–9 positions. There is also a higher probability for lower ISCO backgrounds to end up in upper secondary education but the effect is less pronounced. There is no clear association between father’s ISCO level and the attainment of professional education. Similar patterns, as the ones just described, emerge for the association between mother’s ISCO level and the education attainment of the respondent.

The influence of other parental employment states on the education attainment of the respondents is rather weak. Respondents whose father or mother were own account workers, self-employed or employers resemble an education distribution that is more similar to lower ISCO groups such as the ISCO-5 level, whereas they perform worse than respondents with fathers or mothers in ISCO-1–4 positions. Supplementary, more detailed analyses on this group (not shown in tables) reveal that respondents with an own-account/self-employed father working as a farmer/herder, craftsmen, shopkeeper, petty trader or street seller perform worse in education attainment than respondents with a father working as self-employed professionals or managers or owners of companies.<sup>9</sup> The latter resemble more the pattern of respondents with employed fathers in higher occupation levels. Having an unemployed father/mother or a father/mother who was engaged in home duties leads to a lower probability of getting a tertiary degree and a higher probability of ending up with a secondary degree. These probabilities are similar to the medium/low occupational levels (e.g. ISCO-5–6) of employed parents. Having a parent unable to work due to illness or already being retired tends to decrease the education chances of the respondent as well compared to the most advantaged ISCO-1–4 groups.

Next we consider the association between the number of siblings and education attainment. Siblings are expected to matter in the competition for parental resources that are relevant for education success. The more siblings a young person has, the less resources should be available for him or her. Table 2.9 shows that there is almost no relationship between the number of siblings and education attainment. For example, the probability of reaching an upper secondary education degree has a small variation of 40 to 44% among respondents with different numbers of siblings. There is just the slight tendency at tertiary level of education that respondents with more siblings tend to have higher chance to get a lower tertiary (BA) degree, whereas those respondents with less siblings more often get a higher tertiary (MA/PhD) degree.

A related measure is the question on with whom the respondent spent most of her/his childhood up to age 15. In the following analyses we distinguish between those respondent who spent all or the majority of this period with both parents and those who did not. Growing up with less than two parents can be seen as proxy for fewer parental resources, *ceteris paribus*, because there is only one or no parent providing resources. It can also be seen as an indicator of disruptive life course events such as divorce or death of a parent that may have detrimental effects on the education attainment. In contrast to our expectation, we only find a weak relationship with the level of education attainment. For example, just 14% of respondents who lived with two parents got a lower secondary degree compared to 25% of respondents who lived with less than two parents. In contrast, 14% of persons growing up with two parents reach a lower tertiary (BA) degree, whereas this happens to just 6% of persons who grow up with less than two parents. However, the relationship is not as clear. For example, both groups are almost equally represented at the higher tertiary (MA/PhD) level.

Table 2.10 presents findings on access exams for post-secondary education and points in national exam as well as entry exams. In Tajikistan, students used to get access to post-secondary education via entry exams at the specific institutions they wanted to enroll in. Beginning in 2014, a new mechanism for the admission of students in higher education through the National Testing Center under the President of the Republic was established. Students need to pass the Unified University Entrance Examinations at the National Testing Center in order to be admitted to tertiary education (Ashurov, 2019; EACEA,

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<sup>9</sup> This additional analysis on subgroups of self-employed mothers was not performed due to the small number of self-employed mothers.

2017). Before that time there was also a state entrance exam, except for those who entered higher education via quotas or had outstanding performance in secondary school or competitions.

Table 2.10 highlights that 29% of all respondents who were enrolled in lower tertiary (BA) education and 25% of those who were enrolled as higher tertiary (MA/PhD) students when leaving education got access to this education level via a national exam. Respectively, almost three quarter of tertiary students entered higher education institutions (HEI) via entry exams organized by the specific institutions they wanted to enroll at. Among secondary professional students 31% took part in a national exam, 61% performed an entry exam by the institution and 7% report that no test was required to get access to secondary professional education. Additional analyses (results not displayed in tables) reveal that the 7% of secondary professional students who did not perform any test were mainly found among those who attended secondary professional education after 9<sup>th</sup> Grade (GBE).

**Table 2.10: Access exams for post-secondary education and points in national exam or entry exam, column-%**

	Sec. Prof.	Low. Tert.	High. Tert.
<i>Access to post-secondary education</i>			
National exam	31	29	25
Entry exam required	61	70	73
No exam was required	7	0	2
<i>Performance in national exam</i>			
excellent	14	17	23
very good	29	40	43
good	48	38	33
satisfactory	8	4	1
Don't know /refusal	1	0	1
<i>Performance in entry exam</i>			
excellent	9	4	13
very good	22	26	29
good	62	61	48
satisfactory	7	9	9
Don't know /refusal	1	0	0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Regarding the performance in the national exam, persons from higher tertiary (MA/PhD) education report better grades on average than those from lower tertiary (BA) education, although the differences are not much pronounced.<sup>10</sup> Particularly, 66% of higher tertiary (MA/PhD) had an excellent or very good performance compared to 57% of respondents from lower tertiary (BA). In contrast, 38% of lower tertiary (BA) students reached a good grade in the national exam, whereas this applies to 33% of higher tertiary (MA/PhD) students. Grades are on average worse for secondary professional students compared to tertiary students. For example, just 43% of secondary professional students reach an excellent or very good grade and 48% reach a good grade in a national exam. A similar ordering of education groups can be found with respect to the entry exams in institutions. In general, there are fewer people getting excellent or very good grades in decentralized entry exams in institutions compared to the national exams. For example, 13% of higher tertiary students (MA/PhD) had an excellent grade and 29% had a very good grade in entry exams organized by institutions, whereas the respective shares for were 23% and 43% in the national exam. On average, respondents

<sup>10</sup> It should be noted that these are self-reported grades, which are subject to misreporting bias.

with higher tertiary (MA/PhD) education outperform respondents from lower tertiary (BA) in the decentralized entry exams organized by the institutions. There is not much difference in the distribution of grades between secondary professional students and lower tertiary (BA) students. In contrast to the performance in the national exam, it should be kept in mind that grades in the decentralized entry exams organized by the institutions are even more difficult to compare because there is variation in tests across institutions and across levels of education.

## 2.5. Working before leaving education

There is a debate in the literature whether “working while in school” is bad as it may distract students from being a good student or good as young people acquire work experience, skills and social contacts as well as getting familiar with cultural codes, behavioral patterns and habits in the world of work that may help with the integration in the labor market after leaving education (Jacob et al., 2018; Weiss et al., 2014). It may also act as a signal of unobserved characteristics that are valued by employers (Nunley et al., 2016). Against this background we will describe the incidence, timing, duration and characteristics of working before leaving education in Tajikistan in the following. Multivariate analyses on the determinants and consequences of working before leaving education shall be the aim of future studies.

In this section we study any kind of employment activities the respondents performed before finishing or stopping formal education. Collecting information on working in parallel to education or in periods of interrupting education is seen as important because increasing shares of young people continue their educational career beyond compulsory schooling entering an age when they are available for work next to their studies (Roksa & Velez, 2010; Wolbers, 2003). In the TEW-CCA Youth Transition Survey in Tajikistan we apply a broad conception of work that includes any kind of paid/unpaid registered/unregistered work in family businesses, private businesses or in public sector or work as an own account worker/self-employed/employer.<sup>11</sup> In addition, periods of informal apprenticeship (that is not organized in a formal vocational program) and internships/traineeships are covered as well. However, vocational training received in formal vocational education as well as housework, which was done outside family businesses, are not counted as work episodes to be reported.

Table 2.11 offers an overview on the overall incidence of work before leaving education, differentiated by gender and education groups. The incidence is calculated at the person level. The results show that 23.2% of men and 14.4% of women gained some work experience before leaving education. There is a very strong positive association with the level of education that is reached at the time of leaving education, which can be, among others, technically be related to the later age of leaving education among higher education groups. The incidence of working before leaving education is just 8.5% for basic secondary graduates and 13.0% for upper secondary graduates. It is much higher among initial professional graduates (31.6%) and tertiary graduates (BA: 27.5%, MA/PhD: 35.6%). The only exception among the higher educated groups are secondary professional graduates, of whom just 17.2% worked before leaving education.

In Table 2.12 we give more detailed information on the types of work, periods of work and reasons of work that is done before leaving education. The analyses refer to the sample of reported work spells before leaving education, i.e. one person may contribute to the analysis with several work spells. The analyses are differentiated by gender and education groups.

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<sup>11</sup> A “registered/formal employee” means that income taxes are paid either by the employer or employee. “Unregistered/informal employee” means that income of the employee is not taxed. For all types of work it does not matter if someone earns monetary or non-monetary income.

**Table 2.11: Overall incidence of work before leaving education, by gender and education, row-%**

	%
<i>Gender</i>	
Men	23.2
Women	14.4
<i>Education</i>	
Basic secondary	8.5
Upper secondary	13.0
Initial professional	31.6
Secondary professional	17.2
Lower tertiary (BA)	27.5
Higher tertiary (MA/PhD)	35.6

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Incidence is calculated at the person level.

Regarding the types of work, men predominately report work spells before leaving education as informal/unregistered employees (40%) followed by formal/registered employment (30%). In contrast, women work more often in as formal/registered employees (37%) than as informal/unregistered employees (24%). 10% of male work spells and 8% of female work spells are reported as informal apprenticeships. This type of work is more common than internships/traineeships (5% of male work spells, 3% of female work spells). Work as an employee or helper in the family business is more common among women (20% of work spells) than men (11% of work spells). If respondents worked in the family business before leaving education it was especially in the agricultural business. 4% of male work spells and even 8% of female work spells were as own-account worker, self-employed or employer already before leaving education.

The education differences in the type of work prior leaving education are more pronounced than the gender differences. As before, the level of education attainment refers here to the highest level that is completed at the time of leaving education.<sup>12</sup> While just 8% of work spells of secondary graduates and 23% of work spells of professional graduates were as formal/registered employees, almost every second work spell of tertiary graduates was in formal/registered employment. Vice versa, the share of informal/unregistered employment strongly declines with growing education level. For example, just 27% of work spells of tertiary graduates were as informal/unregistered employees compared to 44% of work spells by secondary graduates. The incidence of informal apprenticeships is highest among professional graduates (17% of work spells).<sup>13</sup> Being employee or helper in agricultural family business is most common among secondary graduates (14% of work spells), whereas being employee or helper in non-agricultural family business is most common among professional graduates (11% of work spells). Both work forms plays only a negligible role among tertiary graduates (5% or less of work spells). Work as an own-account worker, self-employed or employer is dominated by secondary graduates (12% of work spells), while just 2–3% of work spells of professional and tertiary graduates are related to this type of work.

Regarding the periods of work, about every second reported work spell relates to work that is done all over the year (45% of male work spells and 56% of female work spells). The incidence of working all over the year increases with the level of education that is finally reached when leaving education. For example, 67% of work spells of tertiary graduates but only 22% of work spells of secondary graduates

<sup>12</sup> As a matter of simplification, we also mean the persons with primary education and basic secondary education dropouts when talking about “basic secondary graduates”, which represent a small share of the respondents.

<sup>13</sup> This seems to be no misreporting of formal apprenticeships because the great majority of professional graduates who reported informal apprenticeships attended school-based vocational education and not the dual training.

refer to work all over the year. About one quarter of work spells relate to seasonal work (26% of male work spells and 31% of female work spells). Seasonal work spells are much more common among secondary graduates (47%) than among professional graduates (28%) and tertiary graduates (16%). Men report more often work spells during school holidays and working in irregular intervals than women. The incidence of these periods of work tend to decrease with the level of education.

**Table 2.12: Types of work, periods of work and reasons of work of reported work spells before leaving education, by gender and education, column-%**

	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
<i>Types of work</i>					
<i>Formal/</i>					
registered employee	30	37	8	23	51
<i>Informal/</i>					
unregistered employee	40	24	44	40	27
Informal apprentice	10	8	14	17	5
Internship/trainee	5	3	3	1	5
Employee/helper in non-agricultural family business	5	8	6	11	5
Employee/helper in agricultural family business	6	12	14	5	4
Own-account/self-employed/ employer	4	8	12	3	2
<i>Periods of work</i>					
All over the year	45	56	22	47	67
Seasonal work	26	31	47	28	16
During school holidays	16	7	19	11	9
Irregular interval	13	6	13	14	8
<i>Reasons of work</i>					
You wanted to earn your own money	45	48	45	40	48
You wanted to gain work experience	26	42	29	42	31
You worked to build networks	6	4	6	2	5
You had to work to finance your study	18	12	2	10	26
You had to work to support your family	23	13	20	23	19

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: % are calculated for the sample of reported work spells, i.e. one person may contribute to the analysis with several work spells. Multiple answer categories were allowed for the question on the reasons for working, i.e. column-% do not add up to 100% for the reasons for working.

Respondents were also asked to tell the reasons for working for each work spell before leaving education. Multiple answer categories were allowed. The dominant reason for working is the motive of earning money. This motive is rather equally spread among all gender and education groups, ranging between 40% and 48% of the reported work spells. 13% of women and 23% of men say that they earned money not for themselves but for the family. This motive is rather equally spread among all education groups. The higher the education, the more often respondents report work spells that refer to financing their studies. For example, 26% of work spells of tertiary graduates and 10% of work spells of professional graduates were motivated by earning money to finance studies. Regarding work-related motives, work spells reported by women are more often focused on gaining work experience (42% compared to 26% of male work spells). Specifically, professional graduates mention this work motive (42% of work spells). The motive of building networks is reported only for a few work spells (6% of male work spells and 4% of female work spells).

Using Table 2.13 we draw our attention to the life course dynamics of working before leaving education. It reports the age-specific incidence (%) of work before leaving education for various gender and education groups. This analysis is done at the person level. It should be noted that the sample decreases with age as more and more respondents leave education. Thus, for each age group the percentages refer to the persons who have not yet left education.

Results in Table 2.13 show that the incidence of working is very low during teenage years. For example, just around 4% of the respondents worked when they were 15 years old. However, the share substantially increases with age. For example, at age 18, already 11.7% of male respondents and 10.6% of female respondents reported a work activity and at age 20 respective numbers are 17.5% for men and 14.9% for women. At age 24, the shares further increase to 28.6% for men and 29.9% for women. In general, it is found that male respondents reported more often work activities than female respondents for almost every age before leaving education.

**Table 2.13: Age-specific incidence (%) of work before leaving education, by gender and education**

	Men	Women	Basic Sec.	Upp. Sec.	Init. Prof.	Sec. Prof.	Low. Tert.	High. Tert.
<i>Age</i>								
12	0.8	0.6	0.5	0.5	0.0	0.6	0.4	0.6
13	1.4	1.0	1.0	1.1	0.0	0.6	1.3	0.6
14	2.5	2.2	4.6	2.7	0.0	0.9	1.3	1.6
15	4.4	4.1	6.1	5.9	1.1	1.5	1.9	2.2
16	7.2	7.2	8.2	10.6	12.6	1.8	3.2	3.0
17	8.6	7.9	10.5	10.8	17.9	4.3	5.7	4.0
18	11.7	10.6	25.0	11.1	32.6	10.0	10.4	10.5
19	14.2	10.9		6.7	28.1	11.4	13.2	14.6
20	17.5	14.9		5.5	22.7	14.8	18.8	17.0
21	21.4	16.5			11.1	13.1	21.9	21.4
22	23.9	22.0				14.0	22.5	25.9
23	27.1	34.7				12.5	30.2	30.7
24	28.6	29.9					31.4	31.9
25	32.1	28.3						33.6

*Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.*

*Remarks: Incidence is calculated at the person level. % are calculated for the sample of respondents for the time before leaving education. For the education-specific analysis cell entries are restricted to the average age before leaving the respective education level plus two years in order to avoid the dominance by very small group of persons at later ages after typical education leaving age. Average age of leaving education is taken from Table 6.1. The calculation does not take the length of work spells into account (see Table 2.12 for an analysis of length of work spells).*

However, these figures are strongly influenced by the level of education attainment because respondents drop out of the analyses at the age they left education. This induces an overrepresentation of professional and tertiary students at later age. Hence, supplementary education-specific investigations were performed. For the education-specific analysis cell entries are restricted to the time up to the average age of leaving the respective education level plus two years in order to avoid the dominance by very small group of persons who are still enrolled after the typical age of leaving education. The education-specific analyses reveal that the work propensity of (prospective) basic secondary graduates does not exceed 10% before age 17. Similarly, (prospective) upper secondary graduates do not often work before age 15 and they reach a maximum probability of working of around 11% at age 18. The work behavior is different for (prospective) initial professional graduates. Until age 16 almost nobody is working but then the propensity to work surges to 12.6% at age 16 and 32.6% at age 18. In contrast, (prospective) secondary professional graduates rarely work

prior leaving education before 18. At age 18, just 10% of (prospective) secondary professional graduates are working before leaving education. This share remains below 15% at later ages. For (prospective) lower tertiary (BA) graduates there is a gradual increase in the work propensity from 3.2% at age 16 to 10.4% at age 18, 18.8% at age 20 and up to around 30% at ages 23 and 24. A similar gradual increase can be observed for (prospective) lower tertiary (MA/PhD) graduates. The 10% threshold is passed at age 18 and, at age 21, 21.4% of the (prospective) higher tertiary (MA/PhD) graduates are working. At ages 23 to 25, almost every third (prospective) higher tertiary (MA/PhD) graduates is working.

Next to the timing of working, it is also interesting to study the time spent working before leaving education. Table 2.14 provides information on the absolute and relative time spent working before leaving education for gender and education subgroups. The measures are calculated at the individual level. The individual time interval considered lasts from age 12 to the individual age of leaving education. The time spent working is measured on a yearly level and the year is considered as a year of working whenever a work activity is reported in the year, irrespectively of the period of work (for an analysis of periods of work see Table 2.12).

**Table 2.14: Absolute and relative time spent working before leaving education, by gender and education**

	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
<i>Absolute duration</i>					
0 years	77	86	88	80	68
1 year	1	1	1	1	1
2 years	7	2	2	6	9
3 years	5	4	4	7	5
4 years	4	3	2	5	6
5 years	2	1	1	1	3
6 years	2	2	0	1	6
>6 years	2	1	0	0	4
<i>Relative duration</i>					
0%	77	86	88	80	68
]0%-20%]	6	2	1	2	9
]20%-40%]	9	4	3	12	12
]40%-60%]	7	6	5	5	9
]60%-80%]	1	1	2	0	0
]80%-100%]	1	1	1	0	1

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Measures are calculated at the person level. The individual time interval considered lasts from age 12 to the individual age of leaving education. The time spent working is measured on a yearly level and the year is considered as a year of working whenever a work activity is reported in the year, irrespectively of the period of work. This is because the answer categories of periods of work (see Table 2.12) do not allow a measurement of the exact time spent within a year on work. The absolute duration measures the number of years between age 12 and the individual year of leaving education. The relative duration of work experience is calculated by dividing the absolute number of working years prior leaving education by the number of years that were theoretically available for working from age 12 to the individual age of leaving education.

The absolute duration measures the number of years between age 12 and the individual year of leaving education. When interpreting the numbers it should be kept in mind that the year of leaving education and, thus, the time interval considered varies between individuals. Overall, 77% of men and 86% of women do not work before leaving education, which replicates the findings of Table 2.11. If persons worked, the duration is rather equally spread across short and long term experiences. For example,



8% of men and 3% of women spent one to two years working prior leaving education. 9% of men and 7% of women spent three or four years working. A longer work duration of five years and more is reached by 6% of men and 4% of women.

Regarding education groups, the absolute duration of time spent working prior leaving education tends to increase with the (prospective) level of education, which, among other factors, can be technically related to the later age of education leaving of higher educated persons. The first row replicates the findings from Table 2.11 that 88% of secondary graduates, 80% of professional graduates and 68% of tertiary graduates reported that they never worked prior to leaving education. 3% of secondary graduates, 7% of professional graduates and 10% of tertiary graduates have one or two years of work experience. Three to four years of work experience is reported by 6% of secondary graduates, 12% of professional graduates and 11% of tertiary graduates. Long work experiences of five years or more apply more often to tertiary graduates (13%) than to secondary and professional graduates (both 2%), which can be technically related to the longer time available for work prior to leaving education for tertiary graduates.

In order to adjust for these different lengths of potential working experiences, the lower part of 2.14 calculates the relative duration of work experience by dividing the absolute number of working years prior leaving education by the number of years that were theoretically available for working from age 12 to the individual age of leaving education. By definition, the shares in the first row of 0% relative duration is identical to the shares in the first row of 0 years absolute duration. The further results show that 15% of men and 6% of women worked for up to 40% of their available time between age 12 and leaving education. Just 9% of men and 8% of women spent more than 40% of their time between age 12 and leaving education in work. Across all education groups the most common relative amount of working time is between 20 and 60%. This applies to 8% of secondary graduates, 17% of professional graduates and 21% of tertiary graduates. 1% of secondary graduates, 2% of professional graduates and 9% of tertiary graduates work between 0 and 20% of their available time between age 12 and leaving education. Just 3% of secondary graduates, 0% of professional graduates and 1% of tertiary graduates worked more than 40% of the time between age 12 and the age of leaving education.

### 3. Labor market inactivity, job search and time until finding a first job

#### 3.1. Labor market inactivity

Regarding the period after leaving education we start with an empirical analysis of the incidence of labor market inactivity by gender. We address the specific pattern of the “school-to-home transition”, which is usually ignored in the Western literature on school-to-work transition and which got a first detailed attention by the comparative study on youth transitions by Gebel and Heyne (2014). Following this approach, we define “inactive” persons in our sample of education leavers as persons who have neither found a first job<sup>14</sup> until the date of the interview nor engaged in any kind of job search activities<sup>15</sup> since leaving education. Hence, we use a very strict definition of “permanent” inactivity ignoring the incidence of temporary inactivity or persons becoming inactive after a period of labor market engagement.<sup>16</sup>

Supplementary analyses (not displayed in tables) show that 54.5% of women and just 12.9% of men have not yet found a first job at the time of the interview.<sup>17</sup> Among those persons without a first job at the time of the interview, the great majority of women (89.3%) and more than every second men (55.6%) reported that they were not actively looking for a job after they have left education.<sup>18</sup>

We calculate the inactivity rate by combining this information on the existence of the first job and search behavior after leaving education. Table 3.1 shows that 48.7% of women and just 7.1% of men are inactive. This result highlights the large gender inequality with respect to the labor market participation decision after leaving education.

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<sup>14</sup> For a definition of a “first job” see Section 4 of this report as well as the Methodological Report of the TEW-CCA Youth Transition Surveys for details (Gebel & Mandieva 2019).

<sup>15</sup> Each respondent was asked whether he or she had been actively seeking for work in the period after leaving education. Actively seeking means applying for specific works, replying to work offers, answering advertisements, appearing for an interview, sending CV, going directly to companies’ offices.

<sup>16</sup> These issues of temporary inactivity and dynamics into and out of inactivity shall be subject to future multivariate and dynamic analyses.

<sup>17</sup> This is just an information with regard to the criteria of defining inactivity. As individuals differ in the duration of the time period between leaving education and the date of the interview, the given figures have limited information value with regard to the success probability of finding a first job in a dynamic perspective. For more adequate analyses in this respect see Section 3.3, which reports results of more appropriate methods of event history analysis.

<sup>18</sup> Among those respondents who got a first job after leaving education 36.8% report that they did not actively seek for work in the period after leaving education. When looking at the reasons given for not searching 26.5% of these first job holders without search experience did not search because they continued the same work they had before leaving education. Among the remaining cases (n=350) 9.4% report self-employment as their first job type and 14.1% report a first job in the family business, which both often do not entail an active search process. Thus, 296 cases are left for which it seems implausible that they did not search for a first job but found one. 82.0% of these cases can be somehow explained by the fact that they report they found their first job via personal contacts, where the initiative often comes from the family and does not entail a process that is perceived by the respondent as an active search process. The same applies to the 0.7% who were sent to the first job by the referral of the university. The remaining 17.3% (n=51 cases) report methods of finding a first job later on, which implies that a job search process must have taken place. However, this job search process may have already occurred before leaving education such that it was not reported. Nevertheless, in a few cases respondents may have misreported non-search.

Table 3.1 also reports the inactivity rate by education attainment level.<sup>19</sup> For both men and women secondary graduates have the highest inactivity rates and it is lower for professional and tertiary graduates. However, within the group of professional graduates and tertiary graduates there is no clear order. For example, for men, the highest inactivity rate is observed for basic secondary graduates (15.0%) and the lowest one for secondary professional graduates (1.4%). For women, secondary graduates have inactivity rates of 65–66%, whereas initial professional graduates have the lowest inactivity rate (6.3%). The inactivity rate is higher for female secondary professional graduates (11.7%) than for female initial professional graduates (6.3%). Among women with professional or tertiary education, graduates from lower tertiary (BA) education have the highest inactivity rate (18.5%).

**Table 3.1: Inactivity rate, by gender and education level, column-%**

	Men	Women
<i>Total inactivity rate</i>	7.1	48.7
<i>Inactivity rate by education attainment</i>		
Basic secondary	15.0	65.9
Upper secondary	10.6	64.8
Initial professional	7.6	6.3
Secondary professional	1.4	11.7
Lower tertiary (BA)	3.8	18.5
Higher tertiary (MA/PhD)	2.2	9.4

*Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.*

Table 3.2 displays results on the personal reasons given by young men and women for being inactive, i.e. not working or not looking for work, after leaving education. Multiple responses were allowed. 23.7% of male education leavers and 17.0% of female education leavers mention the lack of jobs in the immediate surrounding as a reason for their labor market inactivity. Other important reasons for inactivity among men in Tajikistan is waiting for seasonal work (14.8%) and planning to go abroad (9.6%). This highlights the importance of labor migration in Tajikistan (Olimova & Bosc, 2003). In contrast, for women, the major reasons for labor market inactivity are family-related aspects. 30.4% of inactive women say that marriage was the reason for their labor market inactivity and 11.9% mention that they got inactive because they had to care for other family members. The most important reason for women is that parents or the spouse did not allow them to look for work, which applies to almost every second inactive women (46.4%). Just 2.3% directly report religious and cultural barriers to their labor market participation. All these reasons are almost never given by men. Regarding labor market related reasons of not having useful contacts (8.9% men, 6.7% women), being not properly qualified or trained (5.2% men, 3.3% women) and being too young/inexperienced (8.9% men, 8.0% women) are almost equally often mentioned by inactive men and women. Clear gender differences exist, however, with respect to health issues. Whereas 8.1% of inactive men say illness or disability was the reason for their labor market inactivity, this applies to only 0.5% of the inactive women. Comparing the numbers for men and women it becomes evident that also the lack of work motivation

<sup>19</sup> In this section and the following sections we use education attainment, i.e. the highest education level that was completed, as the independent variable of interest. This is because from a theoretical perspective of signaling theory it can be expected that having the signal of the final degree is important in the labor market attainment process (Gebel & Heineck 2019). Moreover, the persons spent the full time in the education program, which should enhance their human capital compared to person dropping out from the same education program. Specific analyses on the labor market value of the additional education experience of education dropouts shall be subject to future multivariate analyses (for such studies on other Eastern European countries, see, for example, Matković & Kogan (2012) and Matković & Kogan (2014)).

is more often an issue among inactive men in Tajikistan. 10.4% of inactive men said that they did not want to work, whereas this applies to just 7.6% of inactive women.

**Table 3.2: Reasons for inactivity after leaving education, by gender, column-%**

	Men	Women
There was no job in the immediate surrounding	23.7%	17.0%
You were waiting for seasonal work	14.8%	4.9%
You did not have useful contacts	8.9%	6.7%
You were not properly qualified / trained	5.2%	3.3%
You were too young/inexperienced	8.9%	8.0%
You were planning to go abroad	9.6%	1.0%
You were seriously ill or disabled	8.1%	0.5%
You got married	4.4%	30.4%
Your parents/spouse did not allow you to	2.2%	46.4%
You had to take care for other household	3.7%	11.9%
Due to religious or cultural reasons	0.0%	2.3%
You did not want to work	10.4%	7.6%

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Multiple answer categories were allowed, i.e. column-% do not add up to 100%. Analysis on the reasons for inactivity are conducted for the subsample of inactive persons.

### 3.2. Job search methods

The job search behavior of young people at their transition from education to work was asked among respondents who were actively looking for a job. There is an ongoing scientific debate about the role of social networks for labor market success in Eastern European countries (Kogan, 2011; Kogan et al., 2013). In the following, we will highlight the role of such informal job search method as compared to formal job search methods. Table 3.3 shows the job search methods after leaving education differentiated by gender and education attainment. The analyses includes all respondents who actively engaged in seeking for work after leaving education, irrespectively of the fact whether the respondent was successful in finding a job or not.<sup>20</sup> Multiple answers were allowed, if the respondent used several job search methods.

The results in Table 3.3 clearly underline the importance of informal methods of job search in the transition from education work in Tajikistan as 64.2% of men and 58.3% of women used personal contacts in the search for a first job. In addition, 6.5% of men and 0.5% of women contacted labor migrant networks when looking for a first job.<sup>21</sup> In view of the informal job search methods, formal job search methods play a minor role in Tajikistan. Only 15.0% of male job seekers and 9.5% of female job seekers inserted or consulted a job advertisement in online portals, newspapers or journals or answered one in the process of searching for a first job. It is worth noting that a significant number of respondents, 25.0% of male job seekers and 35.1% of female job seekers, has directly applied to the company of their choice for the first job opportunity. Twice as many women than men (15.4% vs. 8-

<sup>20</sup> The method of searching for a job after leaving education should not be equated with the methods of finding a first job. This is because education leavers may use a search method that does not yield a job match. The method of finding the first job is analyzed in Section 4.3.

<sup>21</sup> This result must be interpreted against the background of the definition of the target population of the TEW-CCA Youth Transition Survey in Tajikistan which entails only persons residing in Tajikistan at the time of the survey. Hence, labor migrants are underrepresented in this survey.

0%) who searched for a first job took a test or participated in a competition to get access to a public sector job. Search via employment agencies is not very common in Tajikistan. Just 5.9% of male job seekers and 4.7% of female job seekers contacted a public employment agency. The probabilities are even much lower for contacting a private employment agency (2.4% for men and 1.4% for women). The category of being sent by referral to work relates to students who received support from national or regional authorities and in return were obliged to work in direction of these authorities in return. However, this applies only to less than 1% of the respondents. The gender-specific results reveal that men and women use quite similar job search methods with very few variations.

Education-specific analyses show that the higher the education level, the less common is the practice of using the personal contacts in the search for a first job. Particularly, 80.1% of secondary graduates, 56.1% of professional graduates but only 48.3% of tertiary graduates relied on personal contacts when looking for a first job. Similarly, the share of respondents contacting labor migrant networks decreases with the level of education. The share of unsolicited applications is almost twice as large among professional graduates (34.7%) and tertiary graduates (34.5%) as among secondary graduates (18.7%). Inserting or consulting a job advertisement in online portals, newspapers or journals or answering one is both common among secondary graduates (12.5%) and tertiary graduates (17.3%) but not among professional graduates (4.4%). Taking a test or participating in a competition for recruitment in the public sector is almost never done by secondary graduates (1.7%) and more common among professional graduates (15.0%) and tertiary graduates (16.5%). Professional and tertiary graduates also more often contact public employment agencies. In contrast, there is no clear relationship between the level of education and the use of private employment agencies.

**Table 3.3: Job search methods after leaving education, total, by gender and by education attainment level, column-%**

	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
You inserted or consulted a job advertisement in online portals, newspapers or journals or answered one	15.0	9.5	12.5	4.4	17.3
Unsolicited application	25.0	35.1	18.7	34.7	34.5
You used personal relations	64.2	58.3	80.1	56.1	48.3
You contacted labor migrant networks	6.5	0.5	6.9	4.8	2.4
You took a test/You participated in a competition for recruitment to the public sector	8.0	15.4	1.7	15.0	16.5
You contacted a public employment agency	5.9	4.7	1.6	9.2	7.7
You contacted a private employment agency	2.4	1.4	1.7	3.4	2.0
You were sent by referral to work	0.8	0.7	0.4	0.0	1.3

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Multiple answer categories were allowed, i.e. column-% do not add up to 100%.

### 3.3. Time until finding a first job

In the next we do a dynamic analysis of the individual time elapsed between leaving education and finding a first job. Finding a job is a central marker in the transition to adulthood due to its importance in gaining independence from the family, as well as for securing a good socio-economic position, career and life chances. Using detailed monthly retrospective individual data, the duration of the school-to-work transition is measured as the time elapsed between leaving the education system and finding stable employment (Gebel & Noelke, 2011).

The date of leaving education refers to the last education program the respondent attended.<sup>22</sup> Leaving education is defined both as “finishing education” in terms of successful completion/graduation<sup>23</sup> of the last education program the respondent was enrolled into and “stopping education” in terms of “failing/dropping out” from the last education program the respondent was enrolled into. Thus, both persons who successfully completed their last education and those who failed/dropped out were included. Search periods prior to leaving education are disregarded due to missing information on potential search activities, and because they are fundamentally different from the time elapsed between leaving education and finding a first significant job, as the search after graduation gives rise to higher material and psychological costs (Allen & van der Velden, 2007).

Following common definitions (Gebel & Noelke, 2011), as well the definitions given in the surveys analyzed (Gebel & Mandieva, 2019), we operationalize the first job position for a school leaver as any first job after leaving education, including short-term, casual work and unregistered work, self-employment and work as family helpers, in order to account for the variety of first job positions in Tajikistan. The respondents were asked to fill out a detailed monthly economic activity calendar for the time since leaving education. The activity calendar covers a minimum period of one year up to a maximum period of 10 years depending on the year the respondent was leaving education. The actual length of the calendar varies randomly due to the criteria of selecting respondents. Based on this calendar the first job was identified. The few graduates who obtain first significant jobs before leaving the education system are counted as making an instantaneous transition.

“Permanently” inactive people, i.e. persons who have neither found a first job until the date of the interview nor engaged in any kind of job search activities since leaving education, are excluded from the following analyses on the time elapsed between leaving education and finding a first job (for analyses of this group see Section 3.1). Using the monthly retrospective activity calendar information, periods of military service between leaving education and finding a first job or, respectively the date of the interview were deducted from the duration measurement. This is because military service is an obligatory time-out that should not be counted to the duration of finding a first job. However, only a small proportion of the respondents actually went to the military exactly between leaving education and the first job or the date of the interview. Hence, the military service correction for the search time had only negligible consequences in the case of Tajikistan. Despite these restrictions the time elapsed between leaving education and finding a first job should not be equated with job search time. It may happen that young people temporarily give up job search within this period, i.e. experiencing temporary periods of labor market inactivity because of fully engaging in housework or care, being sick, etc.

Event history analysis is used to study the time elapsed between leaving education and finding a first job. The time elapsed until first significant employment is described with Kaplan–Meier (product-limit) estimates of transition rates because of the problem of right-censored duration data for those who have not yet found employment at the time of the interview (Blossfeld et al., 2019).<sup>24</sup> Figure 3.1 shows

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<sup>22</sup> This means that respondents who interrupted their education career reported about the date of leaving their last education program attended, which is easier to remember (Gebel & Mandieva 2019). In the context of Tajikistan, the focus on the last education program attended is justified as the phenomenon of education returners is less widespread than in Western countries. In any case, all work activities in parallel or prior to this last education spell are still captured in the analyses of Section 2.5.

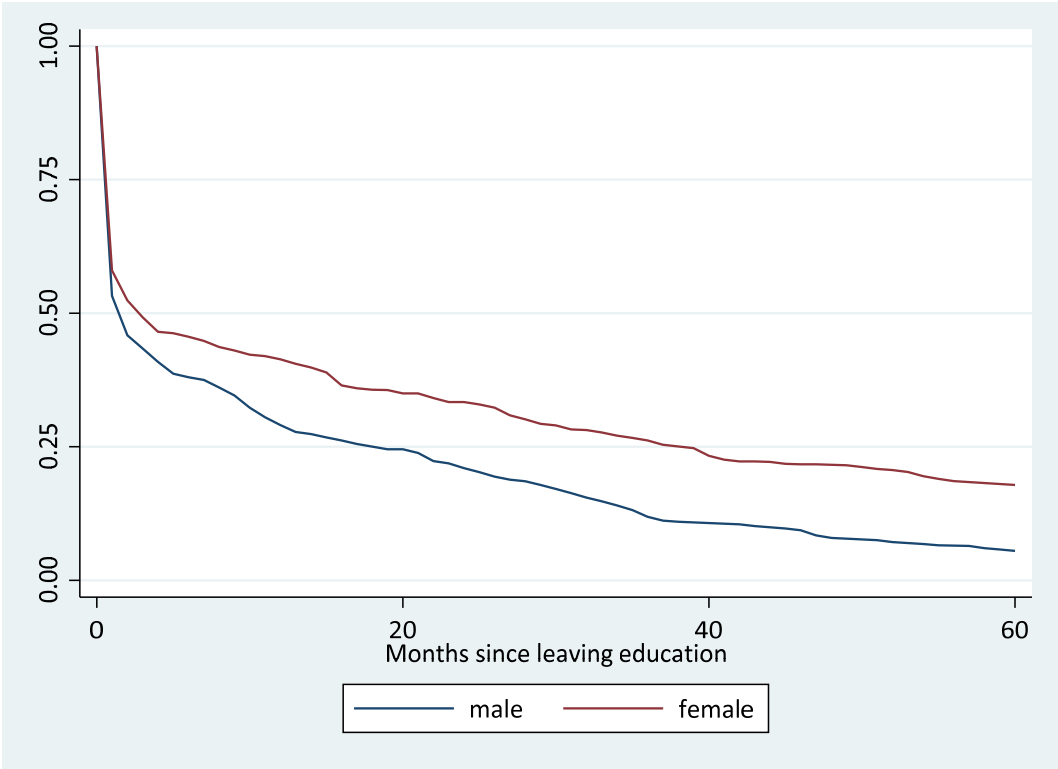
<sup>23</sup> The date of finishing education for successful graduates is defined as the date of attending the last course or participating in the last exam, and not to the date of receiving the certificate. This restriction was seen as important as the national experts reported that a substantial part of graduates receives certificates with a delay due to bureaucracy (Gebel & Mandieva 2019).

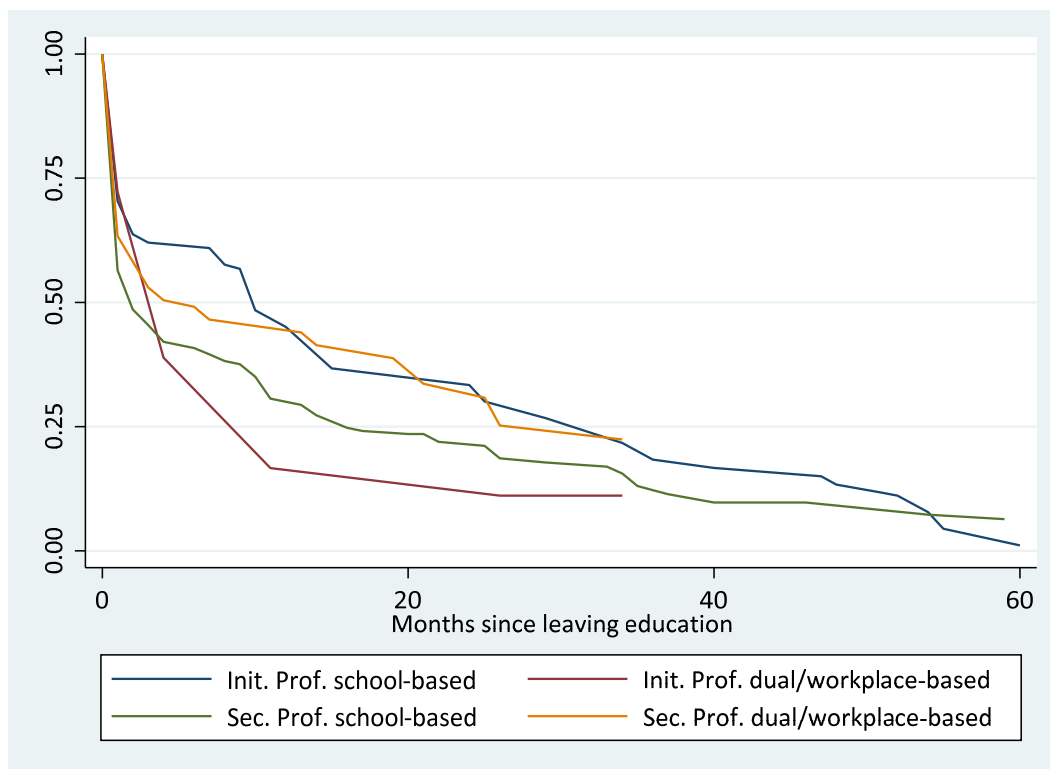
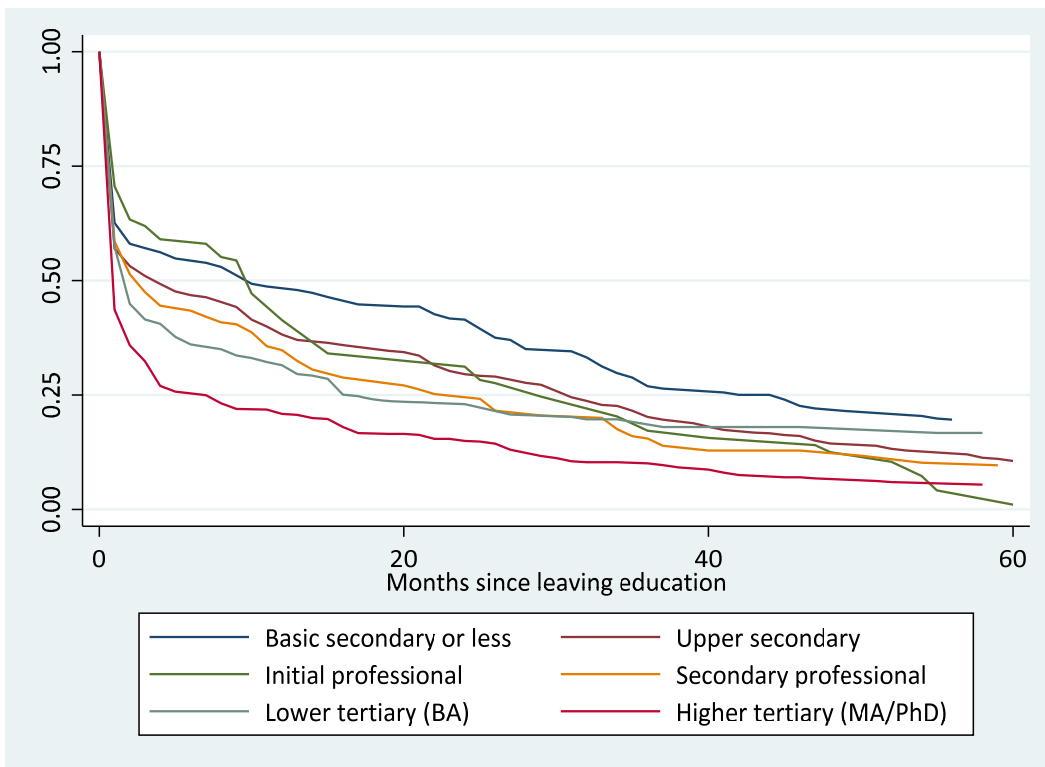
<sup>24</sup> Specifically, in the case of “right-censoring” we know that the transition duration is longer than the time between leaving education and the date of the interview. For example, somebody leaves education seven months before the interview and has not yet found a job. In this case, the overall job search duration will not be exactly seven months but longer and has to be estimated.

Kaplan-Meier survival functions for finding a first job after leaving education by gender, education and VET organization as key independent variables of interests. The y-axis shows the proportion of persons who have not yet found a first job for a given time point after leaving education that is marked on the x-axis. In addition, Table 3.4 lists the respective numbers but from a reversed perspective. For selected months after leaving education it reports the share of people having found a first job until the respective month after leaving education by gender, education and VET organization. This equivalent to the distance from the 100% line and the Kaplan Meier survivor function.

We find that a large proportion (47% of men and 42% of women) of education leavers, who are active in the labor market, experience direct and quick entries into their first job within one month. After six months the shares further increase to 62% for men and 54% for women. In the following months, the gender gap in finding a first job further widens. For example, after two years, 79% of active men but only 67% of active women have found a first job. After three years, 88% of active men and 74% of active women have got a first job. From this moment on, the gender gap stabilized at around 12–14 percentage points. It should be noted that even after five years after leaving education there are still 18% of female active job seekers who have not been successful. With the exception of the initial sharp bend after six months, the pattern of “negative duration dependence”, i.e. that the conditional transition probabilities (so-called “hazard rates”) decrease with the time elapsed in non-employment after leaving education, is not much pronounced in Tajikistan.

**Figure 3.1: Kaplan-Meier survival functions for finding a first job after leaving education by gender, education and VET organization**





Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons excluding inactive persons (i.e. persons who have not found a first job yet and who have not actively searched for a job since leaving education). Survivor function shows for each month the share of persons for a specific group who has not yet found a first job.



Education qualifications are seen as the central determinants of a successful labor market integration (Kogan & Müller, 2003; Kogan et al., 2011; Shavit & Müller, 1998). There is the general tendency that the higher the level of education the speedier is the job finding process. However, the nexus between education and the speed of labor market integration is not strongly pronounced in Tajikistan. For example, both upper secondary and lower tertiary (BA) graduates have the same share of immediate transitions (43%). The share of immediate transitions is smallest among initial professional graduates (29%) and highest among higher tertiary (MA/PhD) graduates (56%). After six months a gap emerges between secondary professional and tertiary graduates with the highest transition rates (57–74%) and the three lower education groups of basic/upper secondary and initial professional graduates (41–53%). After two years this division is blurred as upper secondary and initial professional graduates reach a level of around 70% transitions to a first job, which almost reaches the level of secondary professional and lower tertiary (BA) graduates (75–77%). The highest transition rate after two years is observed for higher tertiary (MA/PhD) graduates (85%) and the lowest one for basic secondary graduates (59%). This ordering remains rather identical during the remaining months since leaving education. After five years all education groups reach transition rates to a first job of 80% or more.

**Table 3.4: Share of people (%) having found a first job until a specific month after leaving education by gender, education and VET organization**

	Months since leaving education						
	1	6	12	24	36	48	60
<i>Gender</i>							
Men	47	62	71	79	88	92	94
Women	42	54	59	67	74	78	82
<i>Education</i>							
Basic secondary	37	45	51	59	73	78	80
Upper secondary	43	53	62	70	80	86	89
Initial professional	29	41	59	69	83	88	99
Secondary professional	41	57	65	75	85	87	90
Lower tertiary (BA)	43	64	68	77	80	82	83
Higher tertiary (MA/PhD)	56	74	79	85	90	93	95
<i>VET organization</i>							
Init. Prof. school-based	30	38	55	67	82	87	99
Init. Prof. dual/workplace based	28	61	83	83	-	-	-
Sec. Prof. school-based	44	59	69	78	88	90	94
Sec. Prof. dual/workplace based	37	51	53	66	78	78	78

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons excluding inactive persons (i.e. persons who have not found a first job yet and who have not actively searched for a job since leaving education). The estimation was not possible for the months 36, 48 and 60 for initial professional graduates with dual/workplace based training because no transitions were observed at this time.

A specific additional analysis was performed with respect to the role of the organization of the VET system as there is an ongoing scientific and political debate about the best organization of VET in terms of its practical work elements and its relevance for the transition from education to work (Shavit & Müller, 1998; Kogan et al., 2011; Kogan, 2019). Table 3.4 shows that at the initial professional level persons with dual/workplace-based training reach a better labor market integration than persons who received school-based training. The only exception is observed at the very beginning of the job search period. 30% of initial professional graduates with school-based training compared to 28% of initial professional graduates with dual/workplace-based training have found a first job within the first

month. The pattern reverses after six months, when 61% of initial professional graduates with dual/workplace-based training and just 38% of initial professional graduates with school-based training compared have got a first job. Another pattern emerges at the secondary professional level, where graduates with school-based training always outperform their counterparts from dual/workplace-based training. For example, 44% of secondary professional graduates with school-based training made an immediate transitions, whereas just 37% of secondary professional graduates with dual/workplace-based training succeed in this respect. The advantage of those with school-based training further increases to 16 percentage points after one year and remains rather stable around 10 to 16 percentage points in the remaining years after leaving education.

### 3.4. Obstacles in finding a first job

In addition every respondent who actively searched for a job was asked about the main obstacles experienced in finding a job after leaving education. Both persons who successfully found a first job and those who have not yet found a first job during the observation period are included but analyzed separately because different obstacles in the job search process can be expected for the two groups. Table 3.5 shows the different major obstacles of finding a job after leaving education that were reported by persons who were actively engaged in job search activity, by success of finding a first job as well as differentiated by gender and education level.

**Table 3.5: Main obstacles of finding a job after leaving education among persons who were actively engaged in job search activity, by success, gender and education level, column-%**

	No first job	With first job	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
You didn't have any problems at all in finding a job.	3.3	21.9	17.5	24.5	9.8	21.8	28.0
Requirements for job were higher than education/ training received	16.7	6.4	7.7	7.7	10.2	11.2	4.0
Not enough work experience	30.1	34.3	36.7	27.7	39.5	36.1	27.7
Not enough jobs available	58.9	46.0	46.8	49.2	49.3	42.9	47.8
Discrimination based on age	0.5	0.7	0.8	0.2	1.3	0.0	0.3
Discrimination based on gender	0.0	0.3	0.3	0.4	0.3	0.7	0.1
Discrimination based on ethnic origin	2.4	0.1	0.3	0.5	0.6	0.3	0.3
Low wages in available jobs	27.3	27.2	30.8	19.7	31.4	26.5	23.6
Poor working conditions in available jobs	8.1	7.2	8.8	4.3	10.2	5.4	5.4
You did not have useful personal contacts	12.9	6.2	7.6	5.7	8.2	5.1	6.6

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who were actively looking for a job after leaving education, irrespectively of the fact whether they found a first job or not. Multiple answer categories were allowed, i.e. column-% do not add up to 100%.

In Tajikistan, just a small proportion of respondents report that they did not have any problems at all in finding a job. Just one fifth of persons with a first job tell that they didn't have any problems at all in finding a job. This indicates that also the majority of successful job seekers in Tajikistan faced problems in finding their first job. However, as one may expect, respondents without a first job report most of the obstacles in finding a job more often than those who were successful in finding a first job. In the following we will comment on the gender-specific and education-specific findings of Table 3.5 in detail.

Almost every second respondents, both among male respondents (46.8%) and female respondents (49.2%) named the lack of available jobs as the main obstacle for finding a job. Additionally, a significant number of respondents (36.7% of men and 27.7% of women) noted that the lack of work experience was a one of the obstacle in finding a job as well. Some respondents also see the problem of unattractive job offers in the job search process. Low wages in available jobs are blamed by 30.8% of male active respondents and 19.7% of female active respondents. In addition, 8.8% of men and 4.3% of women complain about the poor working conditions of the available jobs. In both cases men see more often problems in the quality of job offers. A smaller proportion of respondents mention that the requirements for a job were higher than their education and/or training received (7.7% of both men and women). Only 7.6% of active men and 5.7% of active women tell that they did not have useful contacts as a problem in the job search process. Interestingly, in sum, just a tiny share of respondents of below 1.4% of active men and 1.1% of active women report any experienced discrimination based on age, gender or ethnic origin.

Education-specific results reveal that all education groups complain about the problem of not enough jobs being available to a similar extent (43–49%). Respondents with higher education attainment are more likely to mention that they did not have any problems in finding of first job compared to less educated young people. This share increases from 9.8% among secondary graduates to 21.8% among professional graduates and 28.0% among tertiary graduates. Problems of underqualification are more often reported among secondary and professional graduates (10–11%) than among tertiary graduates (4.0%). Similarly, having not enough work experience is less a problem among tertiary graduates (27.7%) than among professional graduates (36.1%) and secondary graduates (39.5%). Complaints about low wages and poor working conditions of available jobs are also most common among secondary graduates. For example, 31.4% of secondary graduates name low wages and 10.2% name poor working conditions of available jobs as problem, whereas the respective shares are 23.6% and 5.4% among tertiary graduates. Regarding the role of informal networks, secondary graduates say twice more often that they did not have useful personal contacts in the job search process (10.2%) than professional and tertiary graduates (both 5.4%). Age, gender and ethnic discrimination plays a negligible role for all education groups.

## 4. Characteristics of first job

### 4.1. Type and quality of first job

In the previous chapter, we analyzed differences in the speed of finding a first job across different socio-demographic groups. However, a quick labor market entry does not automatically guarantee a higher quality of the first job. Hence, it is important to investigate the type and quality of the first job as well. In this regard, we adopt a multidimensional perspective on various aspects of job quality and working conditions instead of relying on a single job quality dimension (such as wages) or aggregating working conditions into an one-dimensional index. The advantage of such a multidimensional perspective is that it captures potential trade-offs or cumulative advantages or disadvantages in the working conditions of first job holders in different employment segments. Detecting cumulative disadvantages is important in order to assess the prevalence and degree of precarious, low quality work among young female workers. Specifically, the job type, type of contract and the occupation level are the central objective dimensions of job quality that are considered in the following. Due to the retrospective nature of the questions on the first job the TEW-CCA Youth Transition Surveys refrained from asking subjective questions (e.g. on subjective job satisfaction) or details that are hard to remember (e.g. the wage obtained in the first job).

For the subsequent analyses we focus only on those respondents who report that they succeeded in finding a first job. Table 4.1 shows the type of first job differentiated by gender, education level and the organization of VET. Taking regional specificities into account, engagement in the labor market is defined as a very broad concept, encompassing unregistered informal work arrangements, agricultural waged work, self-employment and family helpers (Gebel & Mandieva, 2019). Formal versus informal employment are defined at the individual level and not at the firm level. A formal (registered) job means that income taxes for the specific job are paid either by the employer or employee, whereas this is not the case for informal (unregistered) jobs. Overall, it is noticeable that the great majority of female first job holders (63%) got a first job as a formal/registered employee, whereas the share is just 46% among male first job holders. Thus, men more often had their first work experience after leaving education as informal/unregistered employees (44%) than women (24%). The overall incidence of being employee or helper in the family business is very low for both men (4%) and women (2%). 7% of men and 9% of women were own account workers, self-employed or employers at the beginning of their career.

Education-specific results show that just 20% of basic secondary graduates and 27% of upper secondary graduates start their working life as formal/registered employees. Initial professional graduates have higher chances to get access to work as formal/registered employees (43%). The best chances are observed for secondary professional and tertiary graduates, among which about three quarter of the first job holders are working as formal/registered employees. Analyses by the type of VET training reveal that school-based training increases the chances of working as a formal/registered employees at both levels of professional education. At the initial professional education level, graduates with school-based training have a six percentage points higher probability of having a first job as a formal/registered employee compared to their counterparts with dual/workplace-based training. This advantage is even nine percentage points at the secondary professional education level. The probability of starting the working life after leaving education as an informal/unregistered employee tends to decline with the level of education. For example, 65% of basic secondary graduates but only 16% of higher tertiary (MA/PhD) graduates starts their work career as an informal/unregistered employee. At both levels of professional education, those with dual/workplace-based training more often start their working life after leaving education as an informal/unregistered employee than their counterparts with school-based training. Working as an employee or helper in the family business in the first job is rather equally spread across all education groups, ranging at very low levels between 2% of 4% of all first jobs. The probability of starting as an own-account worker, self-employed or employer is highest among secondary and initial professional graduates (10–11%) and just half of the size for secondary professional and tertiary graduates (4–5%).

**Table 4.1: Type of first job, by gender, education level and VET organization, row-%**

	Formal/ registered employee	Informal/ unregistered employee	Employee/ helper in family business	Own-account/ Self-employed/ employer
<i>Gender</i>				
Men	46	44	2	7
Women	63	24	4	9
<i>Education</i>				
Basic secondary	20	65	3	11
Upper secondary	27	58	4	11
Initial professional	43	44	2	10
Secondary professional	75	18	2	5
Lower tertiary (BA)	73	20	3	5
Higher tertiary (MA/PhD)	78	16	2	4
<i>VET organization</i>				
Init. Prof. school-based	44	42	3	11
Init. Prof. dual/workplace based	38	54	0	8
Sec. Prof. school-based	76	18	2	4
Sec. Prof. dual/workplace based	67	24	4	6

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview.

Another important job quality differentiations exist along the type of contract and social security coverage. Table 4.2 displays differentiated results on these dimensions according to gender, education level and VET organization. These analyses are restricted to dependent employees, including employees and helpers in the family business sector, but excluding own-account, self-employed workers and employers. Regarding the type of contract the crucial distinction between work contracts of unlimited duration versus work contracts of limited duration (temporary contracts) versus seasonal work contracts is made. As seasonal contracts have a tiny incidence of 0.6% they are merged with temporary contracts as it is often done in research on contract types. Whereas temporary contracts play a less prominent role at labor market entry in Eastern Europe, with a few exceptions such as Poland and Slovenia (Baranowska & Gebel, 2008), it is important to consider the case of a written work contract from having no written work contract in Eastern Europe (just a verbal agreement) (Kogan, 2011; Gërkhani & van de Werfhorst, 2013). The case of having no written work contract is often seen as a defining characteristic of informal work arrangements next to or in addition to the distinction between registered and unregistered work.

Gender-specific analyses in Table 4.2 show that 52% of men and 32% of women work without a contract at the beginning of their working career. Vice versa, women's probability of gaining an unlimited work contract (50%) is almost twice as much as men's probability. If men get a contract they often face temporary work contracts (28%). 20% of men start with a limited work contract after leaving education. Although there are also 18% of women who get a limited work contract, the relative probability of getting a temporary contract is much higher for men conditional on getting a contract (men:  $20\% / (20\% + 28\%) = 42\%$ , women:  $18\% / (18\% + 50\%) = 26\%$ ).

Next to gender inequalities there is a clear negative effect of education on the risk of working without a contract. The probability of working without a contract is 78% for basic secondary graduates and drops to 45% for initial professional graduates. Compared to their counterparts from initial professional education secondary professional graduates have a 15 percentage points lower probability of working without a contract. In terms of the VET organization there is an advantage of graduates who were trained in the school-based training over graduates who got dual-/workplace-based training. At the initial professional level this lowers the risk of no-contract work by five percentage points and even by 19 percentage points at the secondary professional level. Tertiary

graduates have the lowest probability of working without contract (27–28%). The three lowest and the three highest education groups substantially differ in their probability of getting an unlimited contract. Whereas just 12–21% of secondary and initial professional graduates get a permanent work contract, this is the case for 45–54% of secondary professional and tertiary graduates. Regarding the organization of VET, graduates with school-based training have better chances to get an unlimited work contract. At initial professional education the advantage is five percentage points for graduates with school-based training and even 31 percentage points at the secondary professional level.

**Table 4.2: Type of contract and employer provided free health insurance coverage in first job, by gender, education level and VET organization, row-%**

	Type of contract			Employer provided social security		
	no contract	Unlimited contract	limited contract	yes	no	Don't know/refusal
<i>Gender</i>						
Men	52	28	20	36	62	2
Women	32	50	18	65	34	1
<i>Education</i>						
Basic secondary	78	12	10	14	83	2
Upper secondary	64	18	18	18	78	3
Initial professional	45	21	34	31	69	0
Secondary professional	30	45	24	69	30	1
Lower tertiary (BA)	28	51	21	63	35	2
Higher tertiary (MA/PhD)	27	54	18	71	28	1
<i>VET organization</i>						
Init. Prof. school-based	45	22	34	29	71	0
Init. Prof. dual/workplace based	50	17	33	42	58	0
Sec. Prof. school-based	25	52	23	68	31	1
Sec. Prof. dual/workplace based	44	21	35	71	29	0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers in their first job are excluded.

Professional graduates have the highest probability to get a temporary work contract. 34% of initial professional graduates and 24% of secondary professional graduates start with a limited work contract after leaving education. The incidence is both lower at secondary and tertiary level, e.g. just 18% for upper secondary and higher tertiary (MA/PhD) graduates and even just 10% for basic secondary graduates. When calculating the relative probability of getting a limited work contract among those respondent who got a contract (either unlimited or limited one) (results not displayed in tables), this relative probability is much higher for the three lower education groups (45%–61%) then for the three highest education groups (25–35%). Regarding VET organization, there is no differences in the absolute probability of getting a limited work contract between school-bases training and dual-/workplace-based training at the initial professional education level. The relative probability of getting a temporary contract (conditional on having a contract) is higher for those with dual-/workplace based training. At the secondary professional education level those with dual-/workplace-based training have a higher absolute probability (12 percentage points) and relative probability (conditional on getting a contract) (32 percentage points) of getting a temporary contract at the beginning of their working career.

Regarding social security coverage the results in the right part of Table 4.2 show that coverage rates are almost twice as high for women (65%) than for men (36%). There is a positive association between the level of education attainment and social security coverage. Just 14% of basic secondary graduates, 31% of initial professional graduates got social security provided by their employer compared to 69% of secondary professional graduates and 71% of higher tertiary (MA/PhD) graduates. In terms of VET organization, persons with dual-/workplace-based training have higher chances to be covered by social security by the employer. The advantage is 13 percentage points at the initial professional level and three percentage points at the secondary professional level.

Another job quality indicator we consider is the occupational skill level of the respondent in the first job. This analysis is restricted to employees and family helpers, i.e. excluding self-employed for which a separate analysis of types of occupations is performed (see below). The TEW-CCA Youth Transition Surveys classified first jobs based on a three-digit version of the International Standard Classification of Occupations (ISCO) classification. We aggregated the information into 1-digit ISCO levels. Table 4.3 reveals that young male and female labor market entrants enter different occupational positions. Almost no men or women (incidence of 1% or less) directly enter ISCO-1 positions as legislators, senior officials and managers at labor market entry. However, many respondents got into jobs as professionals (ISCO-2) or technical and associates professionals (ISCO-3). Women reach ISCO-2 (38% vs. 16%) and ISCO-3 positions (16% vs. 8%) about twice as often as men. Women also outperform men as clerks (ISCO-4, women: 7% vs. men: 4%). However, men and women have almost identical probabilities (7–8%) of being employed as service workers, shop and market sales workers (ISCO-5). Women dominate the lower occupation positions of ISCO-6 level as women work four times more often as skilled agricultural and fishery workers than men (men: 2% vs. women: 8%) and ISCO-9 level as women slightly more often work in elementary occupations (men: 11% vs women: 15%). Men clearly dominate the level of craft and related trades workers (ISCO-7), which is occupied by 45% of male first job holders but only by 8% of female first job holders. Men are also overrepresented as plant and machine operators, assemblers (ISCO-8) but the overall incidence of these occupations is very low (men: 4%, women: 1%). Women dominate the lowest occupation level of elementary occupations (women: 15%, men: 11%).

There is a positive association between the level of education and the occupational skill level. For example, ISCO-2 level of professionals are almost exclusively reached by professional and tertiary graduates. Among professional graduates, secondary professional graduates have much higher chances to work as a professional than initial professional graduate (39% vs. 14%). The chances are highest among tertiary graduates (42–43%). Secondary professional graduates have the highest probability working as technical and associates professionals (ISCO-3) (23%). They are followed by higher tertiary (MA/PhD) graduates (17%) and lower tertiary (BA) graduates (12%). Their chances are twice as high as for initial professional graduates (10%). Starting the working career as a clerk (ISCO-4) is most common among tertiary graduates (8–10%), whereas all other education groups reach 3% at maximum. Secondary graduates have the highest probabilities of working as service workers, shop and market sales workers (ISCO-5) positions (16% of basic secondary graduates, 10% of upper secondary graduates). In contrast, only 2% of secondary professional graduates and 5% of higher tertiary (MA/PhD) graduates work as service workers, shop and market sales workers (ISCO-5). ISCO-6 occupations (skilled agricultural and fishery workers) are most common among secondary graduates (6–9%), whereas all professional and tertiary graduates have a probability of 3% or less of working in ISCO-6 positions. Graduates from basic secondary and upper secondary education as well as initial professional education have the highest probabilities to work in the craft and related trades workers (ISCO-7) with shares of 47% to 49%. In contrast, just 25% of secondary professional graduates, 23% of lower tertiary (BA) graduates and 16% of higher tertiary (MA/PhD) graduates start their working life after leaving education in ISCO-7 positions. There is no clear education-specific pattern for work as plant and machine operators, assemblers (ISCO-8). Lower educated have the highest probability to work in elementary occupations (ISCO-9). For example, 25% of basic secondary graduates, 22% of

upper secondary graduates and 14% of initial professional graduates work in elementary occupations, whereas this applies to just 4–5% of secondary professional and tertiary graduates.

Regarding the organization of VET there is no clear relationship with the occupation level. All professional groups almost never reach ISCO-1 level. In terms of access to professional positions (ISCO-2) professional graduates who received dual-/workplace-based training have an advantage over those who received school-based training (initial professional level: 17 percentage point advantage, secondary professional level: four percentage point advantage). Vice versa, for ISCO-3 technical and associates professional positions, there is an advantage of dual-/workplace-based training over school-based training, which amounts to 37 percentage points at the initial professional education level and three percentage points at the secondary professional education level. Person with school-based training dominate jobs as clerks (ISCO-4), service workers, shop and market sales workers (ISCO-5) and skilled agricultural and fishery workers (ISCO-6). However, the overall incidence of these jobs is very low among professional graduates. Positions at ISCO-7 level (craft and related trades workers) are more often reached by persons with dual-/workplace-based training at the initial professional level and by persons with school-based training at the secondary professional level. The relationship between the organization of VET and ending up in jobs as plant and machine operators, assemblers (ISCO-8) is rather weak and the overall incidence of ISCO-8 positions is very low among professional graduates. At the initial professional education level, those with school-based training end up much more often in elementary occupations (ISCO-9) than those with dual-/workplace-based training (17% vs. 0%). Vice versa, at the secondary professional education level, those with dual-/workplace-based end up much more often in elementary occupations (ISCO-9) than those with school-based training (13% vs. 2%).

**Table 4.3: Occupational level of first job, by gender, education level and VET organization, row-%**

	ISCO 1	ISCO 2	ISCO 3	ISCO 4	ISCO 5	ISCO 6	ISCO 7	ISCO 8	ISCO 9
<i>Gender</i>									
Men	1	16	8	4	8	2	45	4	11
Women	0	38	16	7	7	8	8	1	15
<i>Education</i>									
Basic secondary	0	0	2	1	16	6	47	2	25
Upper secondary	0	2	2	3	10	9	49	4	22
Initial professional	0	14	10	0	8	1	47	5	14
Secondary professional	1	39	23	3	2	0	25	4	4
Lower tertiary (BA)	0	43	12	8	7	3	23	2	3
Higher tertiary (MA/PhD)	3	42	17	10	5	1	16	3	5
<i>VET organization</i>									
Init. Prof. school-based	0	17	5	0	9	2	45	6	17
Init. Prof. dual/workplace based	0	0	42	0	0	0	58	0	0
Sec. Prof. school-based	1	37	22	4	2	0	29	4	2
Sec. Prof. dual/workplace based	0	33	25	0	0	0	25	4	13

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers in their first job are excluded. ISCO levels are defined as 1 "Legislators, senior officials, managers", 2 "Professionals", 3 "Technicians, associate professionals", 4 "Clerks", 5 "Service workers, shop and market sales workers", 6 "Skilled agricultural and fishery workers", 7 "Craft and related trades workers", 8 "Plant and machine operators, assemblers" and 9 "Elementary occupations". Military personal forms a separate group without any distinction of the occupational skill level.



As explained above we looked at various dimensions of job quality. In the next step we would like to link the various quality dimensions to the type of first jobs in order to better characterize them. Table 4.4 presents the association between job quality and first job type.

**Table 4.4: Quality of first job, by first job type, column-%**

	Formal/ registered employee	Informal/ unregistered employee	Employee/ helper in family business
<i>Type of contract</i>			
No contract	15	87	70
Unlimited contract	56	8	6
Limited contract	29	5	24
<i>Employer provided free health insurance</i>			
Yes	76	4	22
No	22	95	63
Don't know	2	1	15
<i>Occupation (ISCO 1 digit)</i>			
Legislators, senior official and managers	1	0	1
Professionals	40	1	12
Technicians, associate professionals	16	2	4
Clerks	7	2	6
Service workers, shop and market sales workers	7	9	9
Skilled agricultural and fishery workers	4	5	6
Craft and related trades workers	17	55	48
Plant and machine operators and assemblers	2	4	6
Elementary occupations	5	23	7

*Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.*

*Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers in their first job are excluded.*

The great majority of formally registered employees were working with official contracts, either with unlimited duration (56%) or limited duration (29%). Only 15% of formally employed first job holders were working on the bases of a verbal agreement with the employer. Having no written work contract is the clearly dominating contract arrangement for informal/unregistered employees (87%) and employees and helpers in family business (70%). This reveals how close the family business jobs are to the informal employee positions in terms of contract types. The very few informal/unregistered employees with contract have more often an unlimited work contract (8%) than a limited work contract (5%). If employees or helpers in the family business have a contract they predominately have limited work contract (24%) instead of an unlimited work contract (6%). Around one quarter of the formal employees benefit from employer-provided social security, whereas this applies to only 22% of the employees and helpers in the family businesses. Among informal/unregistered employees employer-provided social security is an almost unknown phenomenon (4%).

Across all job types, at maximum 1% of first job holders immediately enter positions as a legislator, senior official or manager (ISCO-1). Formal employees have the highest probability of becoming professionals (ISCO-2 level: 40%), whereas informal/unregistered employees (1% incidence of ISCO-2

positions) and employees and helpers in family business (12% incidence of ISCO-2 positions) almost never reach these occupational levels. Formal employees are also overrepresented as technicians, associate professionals (ISCO-3 level: 16%) compared to informal/unregistered employees (2% incidence of ISCO-2 positions) and employees and helpers in family businesses (4% incidence of ISCO-2 positions). 7% of formal/registered employees and 6% of employees and helpers in family businesses work as clerks (ISCO-4), while this applies to only 2% of first jobs as informal/unregistered employees. Positions as service workers, shop and market sales workers (ISCO-5) and skilled agricultural and fishery workers (ISCO-6) are almost equally spread across first job types. Only very few first jobs as formal/registered employees are in ISCO-7 positions as craft and related trades workers (17%), whereas around every second first job as informal/unregistered employees (55%) and employee or helper in the family businesses (48%) is in ISCO-7 positions. First jobs as plant and machine operators and assemblers (ISCO-8) are most often occupied by employees/helpers in family businesses (6%) and least often by formal/registered employees (2%). The incidence of elementary occupations is most widespread among respondents who started their career as informal/unregistered employees (23%), while this incidence is just 7% among employees/helper in the family business and 5% among formal/registered employees.

Data presented in Table 4.5 illustrate the main characteristics of those young persons who started their labor market career as entrepreneurs. In terms of type of occupation, the majority make up self-employed craftsmen (57%) followed by shopkeepers, petty traders and street-sellers (40%).

**Table 4.5: Characteristics of first jobs as own account workers, self-employed and employers**

	%
<i>Occupation</i>	
Farmer/herder	3
Self-employed craftsman	57
Shopkeeper/petty trader/street-seller	40
Professional (Lawyer, consultant, doctor)	0
Manager/owner of the company/organization	1
<i>Formality of business</i>	
registered business	17
unregistered business	83
<i>Main source of business funding</i>	
You took the business over from your father/mother/other relatives	19
Money from family or friends	52
Own savings/sold property	20
Loan from microfinance institutions	1
Loan from bank	8
No money was necessary to start your business	1

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Analysis is restricted to own account workers, self-employed and employers in first job. Dependent employees and family helpers in first job are excluded.

Just 3% work as farmer/herders. Furthermore, being professional, e.g. as lawyers, consultants or medical doctors or becoming the manager/owner of a own company/organization almost never happens at labor market entry in Tajikistan. Gender-specific analyses (results not displayed in Table

4.5) reveal that women more often work as self-employed craftswomen than men and, vice versa, men work more often as shopkeepers, petty traders and street-sellers than women.

The great majority (83%) of businesses owned by labor market entrants were not officially registered, which underlines the importance of the informal sector also in the self-employment segment in Tajikistan. In terms of business funding about every second business person relied on money from family or friends to start the business. 20% had own savings or sold their property to get the necessary money for the business start-up or takeover. 19% said they did not need money because they took over the business from their family. Loan from banks (8%) and loans from microfinance institutions (1%) are not as important for businesses of young people in Tajikistan. This might be a hint that the banking system in Tajikistan still has potential to play a bigger role in the financing of business startups of young people.

#### **4.2. Sector of first job**

There were also differences with regard to the economic sectors in which young school leavers are employed (excluding family sector) in their first job. Regarding the sector of employment, about two third of women work in the public sector in their first job, whereas this applies to just around one third of men. Vice versa, about two third of men start in the private sector but just about one third of women. Employment in NGOs plays a negligible role as the incidence is 1% or below. There is a positive association between the education level and the probability of working in the public sector as an employee. For example, just 12% of basic secondary graduates and 18% of upper secondary graduates work in the public sector. Public sector employment reaches 32% among initial professional graduates and the highest incidence of public sector employment is observed among secondary professional and tertiary graduates (63–69%).

In terms of industry sectors<sup>25</sup> it turns out that women most often start work in the education sector (33%) and the health and social work sector (19%). Other important sectors for women are agriculture (16%) and manufacturing (11%). In contrast, male labor market entrants dominate construction (men: 42% vs. women: 1%). The second most common sector for men is education (12%). Interestingly, the share of men working in manufacturing (9%) is slightly lower than the one for women. Overall, male first employment is rather equally spread across the industry sectors, whereas there is a stronger concentration of women on specific work sectors.

There is also a relationship between education attainment of the respondent and the industry sector of first employment. For example, the share of the agriculture, hunting and forestry sector is highest among the secondary graduates (14–16%) and does not exceed 6% for professional and tertiary education groups. Similarly, manufacturing is more common among secondary graduates than professional and tertiary graduates. In contrast, the industry sectors of public administration, education and financial intermediaries is dominated by tertiary graduates. Secondary professional graduates very often work in health and social work (49%) and construction (23%), whereas initial professional graduates much more often work in construction (48%) than in health and social work (10%).

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<sup>25</sup> Respondents who were self-employed and employers in their first job are excluded from the analysis of ownership structure.

**Table 4.6: Sector of employment and industry sector, by gender and education level, row-%**

	Men	Women	Basic Sec.	Upp. Sec.	Init. Prof.	Sec. Prof.	Low. Tert.	High. Tert.
<i>Sector of employment</i>								
Public	34	64	12	18	32	69	63	66
Private	64	36	83	80	61	30	37	33
NGO	1	0	0	0	7	0	0	1
Don't know/refusal	1	0	4	2	0	1	0	0
<i>Industry sector</i>								
Agriculture, hunting and forestry	5	16	14	16	1	0	6	2
Fishing	0	0	0	0	1	0	0	0
Mining and quarrying	1	0	3	0	0	0	0	0
Manufacturing	9	11	18	13	10	3	5	8
Electricity, gas and water supply	2	0	0	0	8	1	4	2
Construction	42	1	37	42	48	23	20	15
Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods	6	4	8	8	9	1	5	4
Hotels and restaurants	1	3	6	2	0	0	1	0
Transport, storage and communication	4	0	3	4	5	4	2	3
Financial intermediation	2	4	0	0	0	0	5	6
Real estate, renting and business activities	2	0	1	1	1	0	3	3
Public administration and defense; compulsory social security	5	3	0	2	0	2	7	9
Education	12	33	4	3	5	15	38	37
Health and social work	5	19	0	2	10	49	4	7
Other community, social and personal service activities	3	5	5	7	0	1	1	2
Private households with employed persons	1	0	0	0	0	0	1	0
Extra-territorial organizations and bodies	0	0	0	0	0	0	0	0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers in their first job are excluded. For the analysis of the sector of employment employees/helpers in family business are excluded, while they are included for the analysis of industry sector.

### 4.3. Methods of finding the first job

Whereas we analyzed the method of searching for a first job in Section 3.2, this Section 4.3 is devoted to the analysis of the method of finding the first job. Separate analyses are needed because these two aspects can be different as not every method used in the job search process will yield a job match. More specifically, not everybody searching for a job with a specific method has been successful already and even among the successful labor market entrants not each method applied brought them into the first job. Whereas each respondent could report multiple methods of job search that he or she applied after leaving education, respondents had to name the one method how they found their first job. Comparing the job search methods applied (Table 3.3) and the methods of finding a first job (Table 4.7) provides some insights into the efficiency of job search method.<sup>26</sup>

Table 4.7 displays the method of finding a first job in total, by gender and by education attainment level. The analyses includes all respondents who became employees in non-family businesses. Respondents who were self-employed and employers as well as those who were employees/helpers in family business in their first job are excluded.

**Table 4.7: Methods of finding a first job in total, by gender and education level, row-%**

	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
You inserted or consulted a job advertisement in online portals, newspapers or journals or answered one	2.5	1.8	1.7	3.0	2.5
Unsolicited application	14.9	26.1	10.9	26.5	23.1
You used personal relations	73.9	62.5	84.1	59.8	60.0
You contacted labor migrant networks	0.5	0.0	0.6	0.0	0.1
You took a test/You participated in a competition for recruitment to the public sector	4.2	7.2	0.6	4.5	10.1
You contacted a public employment agency	2.0	0.9	0.1	5.1	2.0
You contacted a private employment agency	0.0	0.0	0.0	0.0	0.0
You were sent by referral to work	0.6	1.3	0.0	1.2	1.6
Don't know/refusal	1.4	0.3	1.8	0.0	0.7

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers as well as those who were employees/helpers in family business in their first job are excluded.

Informal networks play a key role in finding a first job in Tajikistan. A majority of men (73.9%) and women (62.5%) found their first job using personal contacts. 1% of the respondents or less contacted labor migrant networks when looking for a first job. This can be explained by the definition of the target population, which entails only persons residing in Tajikistan at the time of the survey, such that labor migrants are underrepresented in this survey. Among formal job search methods the most common way of finding a job is via unsolicited applications. 14.9% of men and 26.1% of women got their first job using this approach. Moreover, 7.2% of women and 4.2% of men report that they got their first job by taking part in a test or competition for recruitment in the public sector. Inserting or consulting a job advertisement in online portals, newspapers or journals or answering plays almost no role in Tajikistan as it was just used by 2.5% of men and 1.8% of women. Similarly, less than 2% of both

<sup>26</sup> In this comparison, it should be taken into account that Table 3.3 includes all active job searchers irrespectively of their later sector of employment, whereas Table 4.7 is restricted to employees who are not employed by their own family. Hence, respondents who had their first job in the business of their family were not asked about the way of finding a first job because it is by definition via personal relations.

men and women found their job by contacting public and private employment agencies. Around 1% of men and women were sent by referral to work. The category of being sent by referral to work relates to students who received support from national or regional authorities and in return were obliged to work in direction of these authorities in return.

The education-specific analyses show that the higher the education level of a graduate the less common it is to find a first job using the personal contacts. The share of respondents who found their first job via personal relations declines from 84.1% for secondary graduates to 60% for both professional and tertiary graduates. Professional and tertiary graduates more often find their first job via unsolicited applications (23–27%) than secondary graduates do (10.9%). While just 0.6% of secondary graduates and 4.5% of professional graduates got their first job by taking a test or participating in a competition for recruitment in the public sector, this applies to 10.1% of tertiary graduates. Getting a first job via inserting or consulting a job advertisement in online portals, newspapers or journals is more common among professional and tertiary graduates (2.5–3.0%) than among secondary graduates (1.7%) but the overall incidence is very low in all education groups. Job placements via public and private employment agencies do not happen very often. The highest incidence of this job finding methods is found among professional graduates (5.1%) followed by tertiary graduates (2.0%), whereas almost no secondary graduate did so (0.1%).

The gender-specific and education-specific differences in the job search process may also relate to the different sectors of first employment among men and women and the different education groups. Hence, we add an analysis on the ways of finding a first job by the sector of employment. Table 4.8 shows the method of finding a first job by the sector of employment. As before, the analysis is restricted to employees who were not employed by their family. The NGO sector was excluded because of the very small incidence (less than 1%) (see Section 4.2).

**Table 4.8: Method of finding a first job by sector of employment, row-%**

	Public	Private
You inserted or consulted a job advertisement in online portals, newspapers or journals or answered one	1.9	2.0
Unsolicited application	30.1	9.2
You used personal relations	51.1	85.8
You contacted labor migrant networks	0.5	0.2
You took a test/You participated in a competition for recruitment to the public sector	9.9	1.6
You contacted a public employment agency	3.8	0.0
You contacted a private employment agency	0.0	0.0
You were sent by referral to work	1.8	0.1
Don't know/refusal	1.0	1.1

*Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.*

*Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview. Respondents who were self-employed and employers as well as those who were employees/helpers in family business in their first job are excluded. The NGO sector was excluded because of the overall very low incidence (less than 1%) among first jobs.*

Table 4.8 reveals that the great majority of first jobs in the private sector were more often found using personal relations (85.8%). The share is lower for first jobs in the public sector but affects about every second first job (51.1%). In contrast, finding a job via taking a test for recruitment in the private sector or participating in a competition for recruitment in the public sector happens more often in the public sector (9.9% vs. 1.6%). Similarly, 30.1% of first jobs in the public sector were found by unsolicited applications compared to 9.2% of first jobs in the private sector. Finding jobs via inserting or consulting a job advertisement in online portals, newspapers or journals is equally less common both in the private and public sector (2%). Job placements via public and private employment agencies occur more

often for first jobs in the public sector than in the private sector but, again, the overall incidence is very low (3.8% vs. 0.0%).

## 5. Early career mobility

### 5.1. First job type and current activity status

In the following, we will analyze the characteristics of the few mobility processes that take place after having found a first job by comparing the situation at the time of the interview with the first job. Studying the early career dynamics is a central topic of school-to-work transition research (Gebel, 2015; Scherer, 2001). Table 5.1 starts with an analysis comparing the first job type with the current activity status of respondents. As we just compare the current situation with the situation of the first job we do not capture all mobility processes that have taken place in the early career. It should also be noted that the observation window varies for the respondents.

**Table 5.1: First job type and current activity status, column-%**

	First job type				
	Total	Formal/ registered employee	Informal/ unregistered employee	Employee/ helper in family business	Own- account/Self- employed/ Employer
<i>Current activity state</i>					
Formal/registered employee	43	73	8	36	6
Informal/unregistered employee	17	4	39	16	0
Informal apprentice/Internship/Trainee	4	1	7	3	4
Employee/helper in family business	1	0	0	28	0
Own-account/Self-employed/ Employer	9	2	3	7	77
Unemployed	19	13	30	4	8
Engaged in home duties	8	6	12	4	4

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold (this/a) job or not at the date of the interview.

According to the results displayed in Table 5.1 there is a high degree of stability in the activity status of formal/registered employees in the early career. 73% of those who started in a formal/registered job are still formal/registered employees at the time of the interview.<sup>27</sup> Only a very small share of 4% of registered employees change to informal/unregistered jobs. This underlines a strong segmentation of the employment sectors in Tajikistan along the formal-informal divide as there are almost no mobility processes between formal to informal employment in the early career. Just tiny shares of the persons with a formal/registered first job are in an informal apprenticeship, an internship or a traineeship (1%) and no one became employee/helper in a family business at the time of the interview. Just 2% turned to own-account work, self-employment or being employer. 13% of persons with a formal/registered first job have become unemployed at the time of the interview and 6% became engaged in home duties.

A higher degree of mobility is observed for persons who started as an informal/unregistered employee. Just 39% of them are still employed as an informal/unregistered employee at the time of the interview, i.e. the majority of them experience a change in activity status. Mobility to formal/registered employment is, however, limited to 8% of the persons who were initially informal/unregistered employees. 7% turned to informal apprenticeship, an internship or a traineeship and 3% became own-

<sup>27</sup> As we just compare the job type of the first job and the current job type, employer changes and changes in job quality may have happened for those who stay in formal employment.



account worker, self-employed or employer. As in the case of formal/registered employees nobody of the informal/unregistered employees entered the family business sector. Persons who were informal/unregistered employees in their first job very often face non-employment at the time of the interview. Almost every third got unemployed (30%) and 12% got engaged in home duties.

Many persons who started their working life as an employee or helper in a family business leave this type of employment, whereas just 28% remain in this job type. 36% entered formal/registered employment, 16% became informal/unregistered employee. Moreover, 7% became own-account worker, self-employed or employer and 3% entered informal apprenticeship, an internship or a traineeship. Non-employment experiences are not widespread among those who started as employee or helper in a family business. Just 4% are unemployed and 4% are engaged in home duties at the date of the interview.

Persons who were own-account worker, self-employment or employer in their first job were very often in the same position at the time of the interview. Just 23% leave this status. The outflows refer to formal/registered employment (6%), informal apprenticeship, an internship or a traineeship (4%), unemployment (8%) and home duties (4%).

## **5.2. Occupational mobility**

Next to mobility in the job type we consider the mobility in the occupational skill level of the respondent. We do so by comparing the occupation in the first job with the occupation in the current job (see Table 5.2). Thus, the analysis is restricted to persons who (have) had a first job and who had a job at the time of the interview. Due to applied occupation scale and design of the questionnaire the analysis is further restricted to persons who were employed in non-family business or family business, i.e. excluding own-account workers, self-employed and employers. As in Section 4.1 the first job as well as the current job were analyzed at the 1-digit ISCO level, which was the result of aggregation from a three-digit ISCO version. As a substantial share (7.9%) of persons is informal apprentice, intern or trainee at the time of the interview and no ISCO classification was asked for this group we treat this group as a separate destination state at the time of the interview.

Concerning those who got direct access to a ISCO-1 positions as legislators, senior officials and managers position at labor market entry, three quarter can keep this privileged position. Just 6% experience moves to jobs as professionals (ISCO-2) and 13% move to jobs as skilled agricultural and fishery workers (ISCO-6) and 6% became informal apprentice, intern or trainee. There is a very strong occupational immobility for persons who started as professionals (ISCO-2), among which 95% can keep their position as a professional. Similarly, among those who started as technical and associates professionals (ISCO-3) 88% remain in this occupational position. The outflows from ISCO-3 mainly happen to lower positions and informal apprenticeships, traineeships and internships. In contrast, outflows from position as clerks (ISCO-4) are mainly in upward position: 3% get into ISCO-1 positions as legislators, senior officials and managers, 8% become professionals (ISCO-2) and 2% are technical and associates professionals (ISCO-3) at the time of the interview. However, the great majority of clerks (86%) remains in this occupational level. There is a relatively high mobility out of jobs as shop and market sales workers (ISCO-5) because 32% leave this position. 11% reach higher (ISCO-1 to ISCO-4) positions and 14% end up in lower ISCO-6 to ISCO-8 positions. 7% become informal apprentice, intern or trainee at the time of the interview. A high degree of occupational level persistence is visible for skilled agricultural and fishery workers (ISCO-6). 92% of them were still in the same occupational level at the time of the interview as at the beginning of their work career. If person leave this position they move downwards to jobs as craft and related trades workers (ISCO-7) (8%). Craft and related trades workers (ISCO-7) are often upward mobile. For example, 5% become professionals (ISCO-2), 3% reach technical and associates professionals (ISCO-3) positions, and 2% become clerks (ISCO-4). 6% end up in ISCO-5 or ISCO-6 positions as shop and market sales workers or skilled agricultural and fishery workers. However, there are also 3% who become plant and machine operators, assemblers (ISCO-8),

5% who end up in elementary occupations (ISCO-9) and 13%, which is the highest relative share among all groups, end up as informal apprentices, interns or trainees. A high degree of mobility is also visible for plant and machine operators, assemblers (ISCO-8) as 20% of them move upward the occupational ladder. For example, even 4% become professionals (ISCO-2). Nobody from ISCO-8 group experiences downward moves to elementary occupations (ISCO-9) and just 4% become informal apprentices, interns or trainees. 68% of persons who started in elementary occupations (ISCO-9) remain trapped in this lowest occupational group. The dominant destination states are ISCO-7 positions as craft and related trades workers (10%), informal apprenticeships, traineeships and internships (9%) and ISCO-5 positions as shop and market sales workers (5%). However, there are also 4% who manage to move upward to positions as professionals (ISCO-2).

**Table 5.2: Occupation in first and current job, column-%**

	Occupation first job								
	ISCO 1	ISCO 2	ISCO 3	ISCO 4	ISCO 5	ISCO 6	ISCO 7	ISCO 8	ISCO 9
<i>Current occupation</i>									
ISCO 1	75	1	1	3	4	0	0	0	0
ISCO 2	6	95	2	8	4	0	5	4	4
ISCO 3	0	0	88	2	2	0	3	2	1
ISCO 4	0	1	1	86	1	0	2	4	2
ISCO 5	0	1	1	1	68	0	3	0	5
ISCO 6	13	0	0	0	3	92	3	4	0
ISCO 7	0	0	4	0	8	8	63	6	10
ISCO 8	0	1	0	0	3	0	3	76	1
ISCO 9	0	1	0	0	0	0	5	0	68
Informal apprentice, intern, trainee	6	0	3	0	7	0	13	4	9

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold this job or not at the date of the interview, and who are currently employed. Restricted to persons who were employed in non-family business or family business. Excluding own-account workers, self-employed and employers. ISCO levels are defined as 1 "Legislators, senior officials, managers", 2 "Professionals", 3 "Technicians, associate professionals", 4 "Clerks", 5 "Service workers, shop and market sales workers", 6 "Skilled agricultural and fishery workers", 7 "Craft and related trades workers", 8 "Plant and machine operators, assemblers" and 9 "Elementary occupations". Informal apprentices, interns and trainees forms a separate group without any distinction of the occupational skill level.

### 5.3. Sectoral mobility

The analysis in Section 4.2 highlighted that there are differences with regard to the economic sectors in which young school leavers are employed in their first job. In this section we consider the sectoral mobility between the first and current job. Hence, the analysis is restricted to persons who (have) had a first job and who have a job at the time of the interview. Due to the applied definition of sectors and the design of the questionnaire the analysis is further restricted to persons who were employed in non-family business or family business, i.e. excluding own-account workers, self-employed and employers. Information about the mobility out of the family business sector and self-employment were provided in Section 5.1.

According to the results in Table 5.3 there is a rather high degree of sectoral immobility in the early career. The great majority of persons remain in their initial sector of employment. This applies to 93%

of labor market entrants in the public sector and 83% of labor market entrants in the private sector. Thus, just 7% of those who started their career in the public sector changed to the private sector at the time of the interview and 17% moved from the public to the private sector. Mobility out of the NGO sector is restricted to private sector jobs.

**Table 5.3: Sector of employment in first and current job, column percentages**

	First sector of employment		
	Public	Private	NGO
<i>Current sector of employment</i>			
Public	93	17	0
Private	7	83	100
NGO	0	0	0

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is conducted for the subsample of all persons who found a first job, irrespectively of the fact whether they still hold this job or not at the date of the interview, and who are currently employed. Restricted to persons who were employed in non-family business Excluding family helpers/employees, own-account workers, self-employed and employers.

## 6. Timing of life course transitions

### 6.1. Incidence and average age of experiencing central events in the transition to adulthood

In this section we analyze the incidence and average age of experiencing central events in the transition to adulthood. In this regard we follow the approach of Gebel and Heyne (2014) and study the transition from education to work in the broader context of the transition to adulthood (Buchmann & Kriesi, 2011; Corijn & Klijzing, 2001; Hogan & Astone, 1986). Specifically, we consider the events of leaving education, leaving parental home, finding a first job, getting legally married<sup>28</sup> and becoming parent for the first time. The incidence measures how many percent of the respondents have already experienced the respective transition event until the date of the interview. It should be kept in mind that the age of the respondent varies at the date of the interview. So respondents differ in their opportunities to have experienced certain life course transitions given their different ages. The age of leaving education is calculated on average for all respondents because the target population of the TEW-CCA Youth Transition Survey is persons who left education. The age of further life course events is only calculated on average for those who experienced this event until the date of the interview. Due to the censoring of data we do not observe all life course events for each respondent.

Table 6.1 presents the incidence and average age of the respondents at the central life events. The events are ordered in the chronological sequence that would be expected but individual deviations are common (see Sections 6.2 to 6.5 for further analyses on the individual order of life course events). According to the results of the analyses, men are on average 1.2 years older than women when leaving education (men: 20.1 years, women: 18.9 years).

Regarding the central life course event of leaving parental home, both men and women leave their parental home when they are in the age of around 20 years (men: 20.1 years, women: 19.8 years). At the date of the interview 63% of men and even 74% of women left parental home.

Men and women have about the same age (men: 21.0 years, women: 21.2 years) when starting the first job. However, there are gender-specific differences in the incidence of finding a first job. 87% of men (have) got a first job until the date of the interview compared to just 45% of women. Central technical explanations for this pattern are the higher inactivity rate of women after leaving education (see Section 3.1) and the longer duration of first job search for women (see Section 3.3).

Strongly gender-specific pattern can be observed with regard to the timing of events of family formation but less in terms of the incidences of family formation. For example, men are on average almost three years older when legally marrying for the first time (men: 23.1 years, women: 20.3 years) and when getting a first child (men: 24.1 years, women: 21.6 years). The incidence of first marriage before the date of the interview is quite similar between men and women (men: 70%, women: 73%). However, there are small differences in the incidence of first parenthood as 65% of women became mother but only 55% of men became father before the date of the interview.

There are also strong education-specific differences in the incidence and timing of life course transition events. This is most evident in the average age of leaving education. Respondents with basic secondary education leave education on average at age of just 16.2 years and upper secondary education do so on average at age 18.1. Graduates from initial professional education are on average just 19.0 years old when leaving education, whereas their counterparts from upper secondary education are on average 1.8 years older (20.8 years). The highest age of leaving education is reached by lower tertiary (BA) graduates (22.3 years) and higher tertiary (MA/PhD) graduates (23.4 years).

The education-specific age dispersion is much less pronounced with regard to leaving parental home. It ranges from 19.0 years for basic secondary graduates to 21.1 years for higher tertiary (MA/PhD) graduates among those who left parental home until the time of the interview. Secondary and initial professional graduates are on average older when leaving parental home than when leaving

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<sup>28</sup> The topic of religious marriage is studied in Section 6.3.

education. Secondary professional graduates have on average the same age at leaving parental home and leaving education. In contrast, tertiary educated are on average younger when leaving parental home than when leaving education. The incidence of leaving parental home until the date of the interview reaches 64% to 69% both among secondary and tertiary graduates. It is higher among professional graduates (76–80%).

**Table 6.1: Incidence and average age of experiencing central events in the transition to adulthood, by gender and education**

	Age of leaving education	Leaving home		1st job		1st marriage		1st parenthood	
		Inci- dence	Age	Inci- dence	Age	Inci- dence	Age	Inci- dence	Age
<i>Gender</i>									
Men	20.1	63%	19.8	87%	21.0	70%	23.1	55%	24.1
Women	18.9	74%	20.1	45%	21.2	73%	20.3	65%	21.6
<i>Education</i>									
Basic secondary	16.2	69%	19.0	49%	17.7	63%	20.1	52%	21.1
Upper secondary	18.1	66%	19.5	53%	19.1	65%	20.7	55%	21.9
Initial professional	19.0	76%	20.1	91%	20.7	58%	22.6	44%	23.7
Secondary professional	20.8	80%	20.8	86%	21.5	86%	22.3	68%	23.2
Lower tertiary (BA)	22.3	64%	20.6	83%	22.6	74%	22.8	60%	23.7
Higher tertiary (MA/PhD)	23.4	69%	21.1	92%	24.0	90%	23.5	77%	24.6

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Age of leaving education is calculated on average for all respondents because the target population of the TEW-CCA Youth Transition Survey is persons who left education. The age of further life course events is only calculated on average for those who experienced this event until the date of the interview.

Concerning the age of starting the first job it is logically that its timing is strongly related to the age of leaving of education and so its average value is higher among more educated youths. For example, basic secondary graduates are on average 17.7 years old and upper secondary graduates are on average 19.1 years old, whereas lower tertiary (BA) graduates on average find a first job at age 22.6 and higher tertiary (MA/PhD) graduates are on average 24.0 years old. Comparing the average age of leaving education and the average age of finding a first job across the education groups mirrors the findings we had with respect to the education-specific job finding rates that higher educated tends to find their first jobs faster (see Section 3.3). The gap is 1.5 years for basic secondary graduates and 1.0 years for upper secondary graduates, whereas it is just 0.7 years for secondary professional graduates and 0.6 years for higher tertiary (MA/PhD) graduates. However, there are also exceptions as initial professional graduates have the longest gap (1.7 years) and also lower tertiary (BA) graduates have a relatively long gap (1.3 years).<sup>29</sup>

There are also education differences with respect to the incidence and timing of first legal marriage. The highest incidence of first legal marriage before the date of the interview is observed for higher tertiary (MA/PhD) graduates (90%) followed by secondary professional graduates (86%), while initial professional graduates have the lowest incidence (58%). The age of first legal marriage increases from 20.1 years for basic secondary graduates to 23.5 years for higher tertiary (MA/PhD) graduates. A similar pattern in education-specific incidence and average age is visible for the event of first parenthood. Again, the highest incidence is observed for higher tertiary (MA/PhD) graduates (77%)

<sup>29</sup> The more elaborated analysis on the relationship between education level and time until finding a first job is the event history analysis conducted in Section 3.3 because it takes the censoring of data into account, which is not the case in this Section 6.1.

followed by secondary professional graduates (68%), while initial professional graduates have the lowest incidence of first parenthood before the date of the interview (44%). There is also a positive relationship between the level of education and the age of first parenthood. It is on average lowest for basic secondary graduates (21.1) and highest for higher tertiary (MA/PhD) graduates (24.6).

As explained at the beginning of this Section 6.1 the analysis of the incidence and average age of life course events does not take the censoring of data into account. Thus, in more detailed analyses in the following, we apply method of event history analyses to the timing of the demographic life course events of leaving parental home, first legal marriage and first parenthood as we already did it for the timing of first job in Section 3.3.

In addition, we provide for each of the life course transitions more detailed analyses on the ordering of life course events in an individual perspective in Sections 6.2 to 6.5. Due to the censoring of data we do not have full life course sequences at hand. Thus, we cannot say how many percent of people experienced first event A and then event B and how many percent did this the other way around. However, what we can do is to investigate how many percent of persons who experienced a certain life course event have already experienced other life course events prior to the event of interest. When interpreting the results of these analyses in the following Sections 6.2 to 6.5 it should be kept in mind that, due to the design of a survey on recent education leavers, not all further life course events (, i.e. leaving parental home, family formation,) have already been observed for every person who will experience them in her or his life course. Hence, the results only apply to the respective group of persons who has already experienced the respective life course event until the date of the interview. Moreover, the warning is given that these analyses do not allow for any conclusions about how many percent or respondents experience other life course events afterwards. This is because, due to the censoring of data, we do not observe each further life course event and, thus, we do not know whether the respondent will ever experience a specific life course event or not. Another related warning is that comparing numbers across Sections 6.2 to 6.5 is only possible to a limited degree because the sample analyzed is different in each section. This is because each Section 6.2 to 6.5 focuses on those respondents who have already experienced the life course event of interest until the date of the interview. As the incidence of life course events varies in general and due to censoring these are different groups of respondents that are investigated as analytical samples in each Section 6.2 to 6.5.

## **6.2. The timing of leaving education and finding a first job**

Table 6.2 shows the percentage of persons who experienced other life course transitions before leaving education, differentiated by gender and education groups. The incidence of leaving parental home before leaving education is rather similar for men (19%) and women (17%).<sup>30</sup> There is a clear positive association between the level of education attainment and the share of respondents who leave parental home before leaving education. It increases from 3–4% for secondary graduates to 13% for initial professional graduates and 31% for secondary professional graduates. It is highest among tertiary graduates (BA: 39%, MA/PhD: 45%). Hence, almost every second university student left parental home before leaving education.

12% of men and 15% of women experience their first legal marriage ahead of leaving education. The incidence of first marriage before leaving education is lowest for secondary graduates (2%) and highest for lower tertiary (BA) graduates (27%) and higher tertiary (MA/PhD) graduates (41%). Only 7% of men become father and 8% of women become mother before leaving education. This ordering of events is almost never experienced by secondary graduates and initial professional graduates (incidence of 2%

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<sup>30</sup> As explained before, the statement that 17% of female education leavers left parental home before leaving education does not imply that 83% of women leave parental home afterwards. This is because, due to the censoring of data, we do not observe whether all remaining women will indeed leave parental home.

of less). However, 14% of lower tertiary (BA) graduates and 25% of higher tertiary (MA/PhD) graduates get a first child before leaving education.

**Table 6.2: Share of people (%) experiencing other life course transitions before leaving education, by gender and education**

	Before leaving education ...		
	leaving home	1st marriage	1st parenthood
<i>Gender</i>			
Men	19	12	7
Women	17	15	8
<i>Education</i>			
Basic secondary	4	2	0
Upper secondary	3	2	1
Initial professional	13	6	2
Secondary professional	31	18	11
Lower tertiary (BA)	39	27	14
Higher tertiary (MA/PhD)	45	41	25

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the full sample.

Table 6.3 reports the percentage of persons who experienced other life course transitions before getting a first job, differentiated by gender and education groups. The analysis and following interpretations are restricted to the sample of persons who have found a first job before the date of the interview.

We find that already 41% of women but just 25% of men with a first job left parental home before starting to work.<sup>31</sup> The incidence of leaving parental home before leaving education increases with the level of education. It ranges from 15% for lower secondary graduates to 48% of higher tertiary (MA/PhD) graduates. Thus, among all higher tertiary (MA/PhD) graduates who got a first job, almost every second person left parental home before getting a first job.

Twice as many female first job holders (38%) than male first job holders (19%) got married before getting a first job. There is a tendency that the share of experiencing first marriage before getting a first job increases with the level of education. Just 11% to 12% of secondary graduates first job holders and 15% of initial professional graduate first job holders got married before their first job. The share is higher for secondary professional graduates who got a first job (25%). The incidence of marriage before getting a first job is highest among first job holders with tertiary degrees (BA: 34%, MA/PhD: 47%). Similar gender and education-specific patterns can be observed for the timing of first parenthood. 24% of female first job holders became mother but only 10% of male first job holders became father before starting to work. The probability of becoming father or mother before finding a first job increases with the level of education. It ranges between 5% and 9% for secondary graduates with a first job and reaches 11% to 14% for professional graduates with a first job. It is highest for tertiary graduates who got a first job (BA: 18%, MA/PhD: 29%).

<sup>31</sup> As explained before, the statement that 41% of women with a first job left parental home before starting to work does not imply that 59% of women with a first job will leave parental home afterwards. This is because, due to the censoring of data, we do not observe whether all remaining women with a first job will indeed leave parental home.

**Table 6.3: Share of people (%) experiencing other life course transitions before finding a first job, by gender and education**

	Before finding 1st job ...		
	leaving home	1st marriage	1st parenthood
<i>Gender</i>			
Men	25	19	10
Women	41	38	24
<i>Education</i>			
Basic secondary	15	11	9
Upper secondary	17	12	5
Initial professional	26	15	11
Secondary professional	35	25	14
Lower tertiary (BA)	39	34	18
Higher tertiary (MA/PhD)	48	47	29

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is restricted to the sample of persons who have found a first job before the date of the interview.

### 6.3. The timing of leaving parental home

Leaving the parental home is seen as an important step in the complex transition to adulthood (Baranowska-Rataj et al., 2016; Gebel, 2017; Shanahan, 2000; Corijn & Klijzing, 2001). It is an objective indicator or, so called “transition marker”, of young people becoming independent from their parents. It also often implies that young people gain autonomy (Baranowska-Rataj et al. 2016). However, the objective indicator of leaving the parental home should not be seen as equal for gaining autonomy from parents (Manzoni, 2016). Young people may be rather independent of their parents although they still share a flat. In a similar way, young people may have their own household but the parents still strongly support their child. The standard objective indicator of the date of leaving education is used in order to maintain comparability to the majority of empirical studies on leaving parental home.

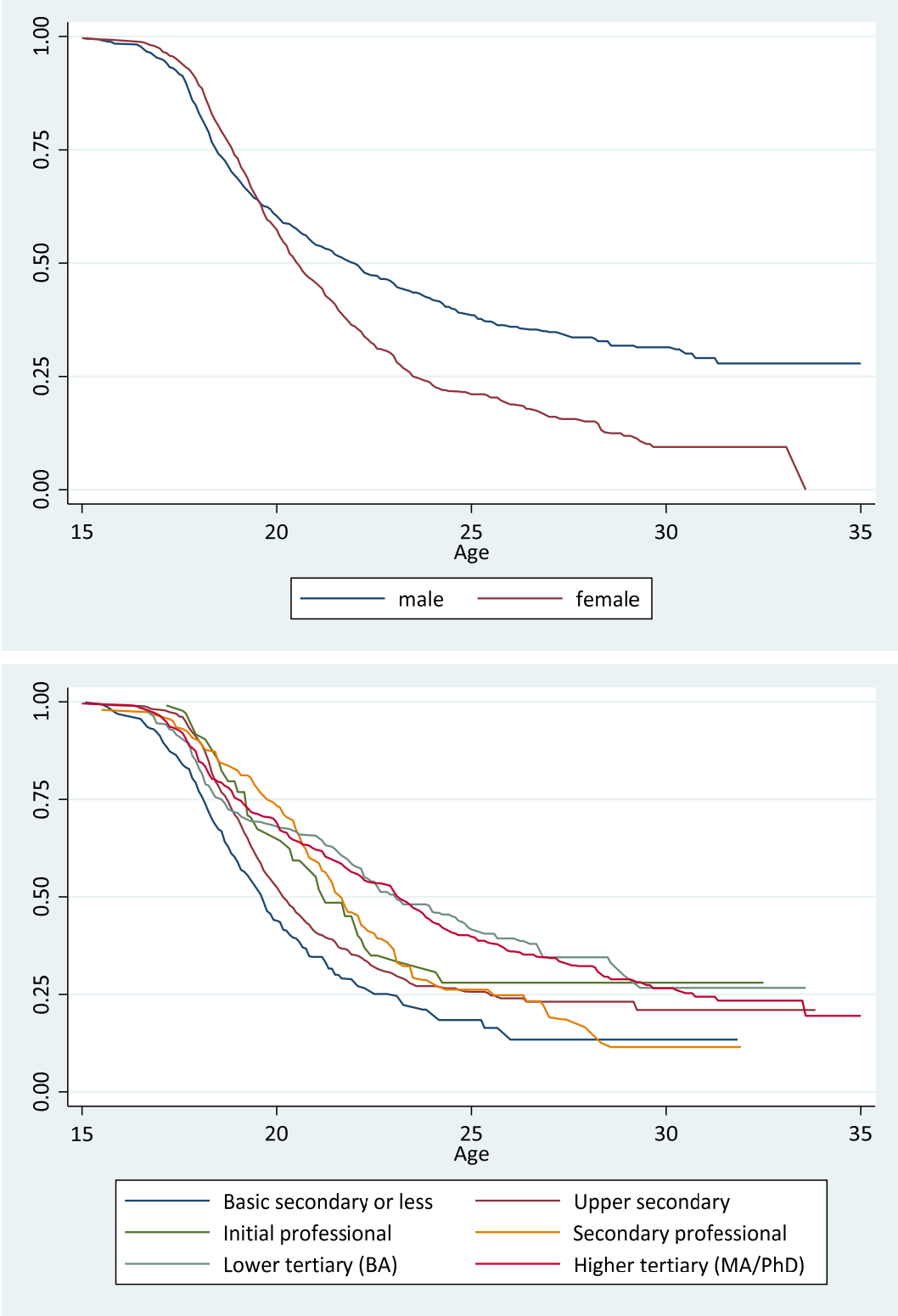
As explained by Gebel and Mandieva (2019) a time restriction for defining the event of leaving parental home is introduced requiring that the young people lived separately for one year or more to avoid reporting of short insignificant spells. Periods of military service or long-term hospital stays were excluded because young people only move from the parental home to institutionalized living arrangements, which does not represent the move to residential independence researchers are interested in when studying the transition to adulthood. The interviewer guideline specifies that “parental home” is broadly defined as living arrangements with the legal guardian(s), such as the biological, adoptive, or step parent(s) the respondent spent most of his or her childhood (up to age 15). Adoptive and step parent were also included because, from a theoretical perspective, the biological relationship is not of interest when investigating the process of gaining residential independence. “Living separately” is defined as living in separate accommodation, i.e. with a separate entrance, living either alone or with other person(s) (friend(s), partner, spouse, own children, parents-in-law, etc. but not with any biological, adoptive and/or stepparents). This definition was chosen to account for multi-story dwellings, which are shared by separate persons and families that form distinct households. Thus, staying at home requires that the person continues sharing the household with his or her legal guardian(s).

Event history analysis is used to study the timing of leaving parental home. As described in Section 3.3 this accounts for the problem of right-censoring of data. Figure 6.1 shows Kaplan-Meier survival functions for leaving parental home by gender and education. The y-axis shows the proportion of persons who have not yet left parental home for a given age that is marked on the x-axis. In addition,



Table 6.4 shows the respective figures but from a reversed perspective. For selected ages it reports the share of people having left home until the respective age by gender and education groups. This is equivalent to the distance from the 100% line and the Kaplan Meier survivor function in Figure 6.1.

**Figure 6.1: Kaplan-Meier survival functions for leaving parental home, by gender and education**



Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.  
Remarks: Analysis are conducted for the whole sample.

**Table 6.4: Share of people (%) having left parental home until a specific age, by gender and education**

	Age					
	18	20	22	25	27	30
<i>Gender</i>						
Men	17	40	50	61	65	69
Women	11	43	64	79	84	91
<i>Education</i>						
Basic secondary	23	56	72	82	87	87
Upper secondary	10	47	65	74	77	79
Initial professional	8	33	55	72	72	72
Secondary professional	10	27	54	74	81	88
Lower tertiary (BA)	17	32	42	58	65	73
Higher tertiary (MA/PhD)	15	31	44	60	66	73

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the whole sample.

The empirical analyses show that 17% of men and even 11% of women left parental home at age 18 or earlier. The share sharply increases for women to 43% and for men to 40% at age 20. The gender gap further increases with age. At age 25, 79% of women compared to 61% of men left parental home. This gender gap of 18 percentage points further increases to 22 percentage points at age 30, when almost each women (91%) but just 69% of men have left parental home.

There is no clear association between the level of education and the timing of leaving parental home. At age 18, 23% of basic secondary graduates but just 10% of upper secondary graduates and 8–10% of professional graduates left parental home. The share increases again to 15–17% for (prospective<sup>32</sup>) tertiary graduates. At age 20, more than half of basic secondary graduate left parental home (56%). The share is especially growing for upper secondary graduates who reach a level of 47%. The incidence of leaving parental home is much lower for professional and (prospective) tertiary graduates at age 20, ranging from 27% to 33%. Until age 25, particularly professional graduates experience an increase in the share of home leaving. Their level of 72–74% is similar to the level of upper secondary graduates (74%). The highest share of parental home leaving is still observed for basic secondary graduates (82%) and the lowest ones for tertiary graduates (58–60%). This ordering of education levels with respect to the incidence of parental home leaving stays relatively stable until age 30. The only exceptions are secondary professional graduates who are in the lead at age 30 (88%). At age 30, each education group reaches a share of persons having left parental home that is larger than 70%.

Table 6.5 shows the share of persons who experienced other life course transitions before leaving parental home, differentiated by gender and education groups. The analysis and following interpretations are restricted to the sample of persons who have left parental home before the date of the interview. 55% of female and 74% of male parental home leavers left education before leaving parental home.<sup>33</sup> The incidence of leaving education before leaving parental home strongly declines

<sup>32</sup> The education variable refers to the level of education attainment at the time of leaving education. At younger ages most of the higher education groups are still in education and have not yet obtained their highest education degree.

<sup>33</sup> As explained before, the finding of this Section 6.3 that 55% of women who left parental home until the date of the interview left education before is not directly comparable to the finding of Section 6.2 that 17% of women who left education until the date of the interview left parental home before. The two numbers do not add up to 100% because the analytical samples of Section 6.2 and 6.3 are different. In Section 6.2 the persons who left

with the level of education attainment. Whereas 90% of basic secondary graduates, who left parental home, experience leaving education before leaving parental home, this applies to 54–63% of those with professional education and just 30–31% of those with tertiary education. Regarding the timing of the first job, 21% of male parental home leavers and 18% of female parental home leavers started to work before leaving parental home. There is no clear relationship between the level of education and the incidence of getting a first job before leaving education for those who have left parental home. For example, low shares of starting working before leaving education is observed for parental home leavers with tertiary education (14–16%) but also those with secondary education (18–22%). The highest shares in this respect are observed for professional graduates (29–31%).

Just 13% of male and 4% of female parental home leavers were already married and just 7% of male and 2% of female parental home leavers already had a first child. However, more detailed analyses (not shown in Tables) reveal that, especially for women, the events of leaving home and first marriage coincide. Specially, this applies to 82% of women but only 1% of men who left home. Combining these findings reveals that 86% (=4%+82%) of women and 14% of men (=13%+1%), who left home, got married before or in the same month as leaving education. This reverses the gender pattern and reveals that the great majority of female home leavers got married when leaving education, whereas the great majority of men did not experience marriage when leaving home.

**Table 6.5: Share of people (%) experiencing other life course transitions before leaving parental home, by gender and education**

	Before leaving parental home ...			
	Leaving education	1st job	1st marriage	1st parenthood
<i>Gender</i>				
Men	55	21	13	7
Women	74	18	4	2
<i>Education</i>				
Basic secondary	90	22	3	3
Upper secondary	86	18	6	2
Initial professional	63	29	11	3
Secondary professional	54	31	9	4
Lower tertiary (BA)	30	14	10	5
Higher tertiary (MA/PhD)	31	16	16	11

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is restricted to the sample of persons who have left parental home before the date of the interview.

#### 6.4. The timing and arrangement of first marriage

Processes of family formation such as marriage and parenthood are central events in the transition to adulthood next to the transition from education to work. Life course research has shown that family formation and school-to-work transition are strongly interrelated (for a short overview, see, Gebel & Mandieva, 2019).

education until the date of the interview are analyzed, which is different from the sample of Section 6.3, in which only those persons are analyzed who left parental home until the date of the interview.

The TEW-CCA Youth Transition Survey in Tajikistan asked respondents about the incidence and timing of both religious and legal marriages. Detailed analyses (results not displayed in tables/figures), reveal that among those respondents who experienced a religious or legal marriage (or both) until the time of the interview, 2.6% had a religious but (not yet) a legal marriage, 1.6% had a legal but (not yet) a religious marriage and 95.8% had both a religious and a legal marriage.

Among those respondents who have had both a religious and legal marriage until the date of the interview, the overwhelming majority of 99.4% had these two events simultaneously within one month and the remaining 0.6% had the legal marriage followed by the religious marriage. Due to these tiny differences between legal and religious marriage we will focus on the event of first legal marriage in the following analyses. This is also in line with other studies on transition to first marriage.

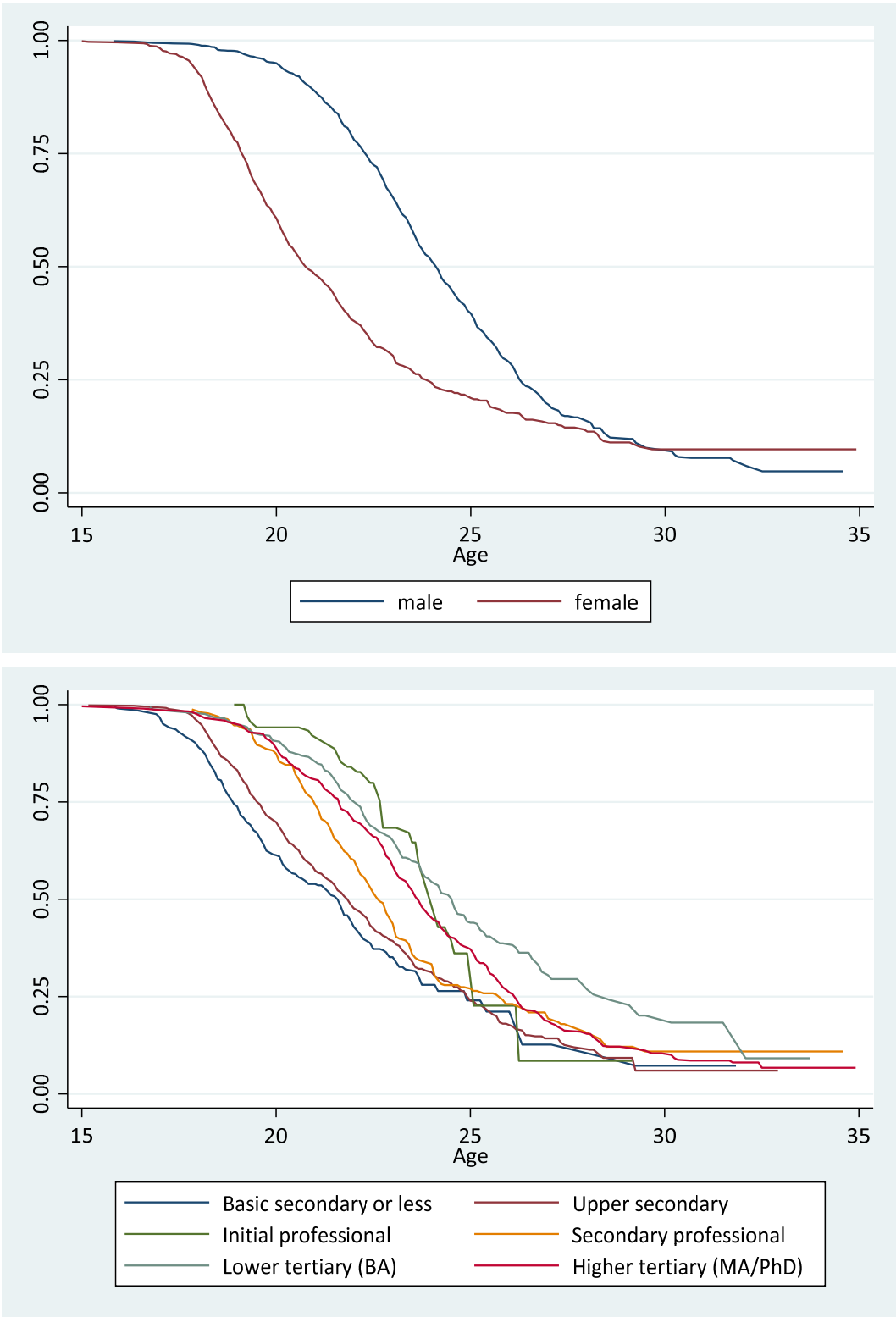
Event history analysis, which accounts for the right-censoring of data, is also used to study the timing of first legal marriage. Figure 6.2 shows Kaplan-Meier survival functions for first marriage by gender and education. The y-axis shows the proportion of persons who have not yet legally married for a given age that is marked on the x-axis. In addition, Table 6.6 shows the respective figures but from a reversed perspective. For selected ages it reports the share of people who have got married until the respective age by gender and education groups. This is equivalent to the distance from the 100% line and the Kaplan Meier survivor function in Figure 6.2.

We find that less than 1% of men and 7% of women have already got married at age 18 or earlier. The shares strongly increase with age, specifically for women. For example, at age 20, 39% of women but only 5% of men have got married. This gender gap of 35 percentage points at age 20 further increases to a maximum of 40 percentage points at age 22, when 22% of men and 62% of women got married. The gender gap quickly closes again at later ages. For example, at age 25, already 60% of men got married compared to 79% of women. At age 30, the survival functions merge as both 90% of men and 90% of women got married.

The education-specific analyses reveal that the incidence of early marriage is higher among lower education groups. For example, until age 20, 39% of basic secondary graduates and 30% of upper secondary graduates got married, while the share is just 6–13% among (prospective) professional graduates and 9–11% among (prospective) tertiary (MA/PhD) graduates. As higher education groups have not yet finished their education at these ages there is an overlap of education participation and education level effect. At age 22, more than half of secondary graduates got already married. The lowest marriage shares at age 22 are observed for initial professional graduates (16%) and (prospective) lower tertiary (BA) graduates (25%). Higher tertiary graduates (MA/PhD) (30%) and secondary professional graduates (40%) reach higher marriage rates. Education-specific marriage rates become a bit more similar at age 25. This applies especially to secondary graduates (76%) and secondary professional graduates (73%) but also the distance to the remaining group shrank (initial professional graduates: 64%, lower tertiary (BA) graduates; 56%, higher tertiary (MA/PhD) graduates: 63%). The convergence is best visible at age 30, when almost all education groups are close to 90% or above. The only exception are lower tertiary (BA) graduates with a first marriage incidence of 80%.

Table 6.7 shows the share of persons who experienced other life course transitions before first legal marriage, differentiated by gender and education groups. The analysis and following interpretations are restricted to the sample of persons who have got legally married before the date of the interview. 80% of married men and 78% of married women left education before getting married. The incidence of leaving education before getting married declines with the level of (prospective) education attainment. Whereas almost all married secondary graduates first leave education and then got married (96–97%), this applies to 75–88% of married professional graduates and 52–59% of married tertiary graduates. Nevertheless, among all education groups the great majority of persons who experienced first marriage until the date of the interview leaves education before getting married.

**Figure 6.2: Kaplan-Meier survival functions for 1<sup>st</sup> legal marriage, by gender and education**



Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.  
 Remarks: Analysis are conducted for the whole sample.

**Table 6.6: Share of people (%) who experience 1<sup>st</sup> legal marriage until a specific age, by gender and education**

	Age					
	18	20	22	25	27	30
<i>Gender</i>						
Men	1	5	22	60	81	90
Women	7	39	62	79	85	90
<i>Education</i>						
Basic secondary	11	39	57	76	87	93
Upper secondary	4	30	52	76	86	94
Initial professional	0	6	16	64	92	-
Secondary professional	1	13	40	73	81	89
Lower tertiary (BA)	1	9	25	56	70	80
Higher tertiary (MA/PhD)	3	11	30	63	81	90

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the whole sample. Survivor function cannot be estimated at age 30 for the initial professional graduates because no events were observed.

52% of married men and just 9% of married women left parental home before getting married. More detailed analyses (not shown in figures/tables) reveal that for many married people, especially women, the events of leaving home and first marriage coincide. Specially, this applies to 81% of women but just 1% of men who got married. Combining these findings reveals that 90% (=9%+81%) of women and 53% of men (=52%+1%) who got married left parental home before marriage or during the month of marriage. Hence, almost all married women leave parental home before or on marriage, whereas this applies to just about a half of married men. The share of leaving home before getting married does not systematically vary with the (prospective) level of education. It is lowest for upper secondary graduates (23%) and highest for initial professional graduates (54%).

**Table 6.7: Share of people (%) experiencing other life course transitions before 1<sup>st</sup> legal marriage, by gender and education**

	Before 1st marriage ...			
	Leaving education	Leaving home	1st job	1st parenthood
<i>Gender</i>				
Men	80	52	67	1
Women	78	9	20	1
<i>Education</i>				
Basic secondary	97	24	36	2
Upper secondary	96	23	40	1
Initial professional	88	54	69	4
Secondary professional	75	34	57	3
Lower tertiary (BA)	59	34	40	1
Higher tertiary (MA/PhD)	52	36	42	1

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is restricted to the sample of persons who experienced 1<sup>st</sup> legal marriage before the date of the interview.

67% of married men but just 20% of married women got a first job before becoming married. There is no clear relationship with the level of education. The highest rates of first jobs before marriage is observed for married persons with professional education (57–69%), whereas the rate ranges between 36% and 42% for secondary and tertiary graduates.

Only a tiny share of married respondents experience a first parenthood before their first marriage. This is a first hint that out-of-wedlock births are very rare events in Tajikistan (for further results see Chapter 6.5). The incidence of first parenthood before first marriage does not systematically vary with the level of education.

The TEW-CCA Youth Transition Survey in Tajikistan asked respondents about some more details on the first marriage. In this respect Table 6.8 offers information on the way of finding the spouse, the decision on marriage and the age difference to the spouse, differentiated by gender and education groups.<sup>34</sup> The results indicate that the majority of marriages are arranged by the parents and/or the family. 40.3% of married men and 24.9% of married women report an arranged marriage. In addition, 8.8% of men and 14.8% of women say that their spouse is a relative and around 7% of both men and women tell that their spouse was a neighbor. The second major way of finding a spouse is by meeting the spouse occasionally (men: 18.3%, women: 19.3%). Moreover, 9.7% of men and 8.6% of women met their spouse through friends, relatives, or acquaintances. It is less common in Tajikistan to meet the spouse while working (around 2% incidence for both men and women) or while studying (men: 5.1%, women: 7.3%). Finding a spouse via internet or phone or via religious/charitable activities plays almost no role in Tajikistan as their incidence is below 1%. However, a specific finding for Tajikistan is that 7.6% of men and 14.% of women say that they found their marriage partner through a matchmaker.

Regarding education group differences it turns out that there is just a weak association between the level of education and the way of finding the partner for marriage. Arranged marriages are rather equally common among all education groups. There is just a slight tendency that marrying a relative is less common among higher educated persons. In contrast, marrying a neighbor is rather equally common among all education groups. The higher the (prospective) education level of a respondent is, the higher is a probability that the respondent met his or her spouse while studying or at the workplace. There is no clear pattern between finding the spouse occasionally or via friends, relative or acquaintances.

When asked about the final decision on marriage about half of the married respondents (52.3% of men and 44.7% of women) report that it was a joint decision of themselves and their parents. However, in sum, 31.9% of men and 39.7% of women say it was the decision of both of their parents, their father or their mother. Just 14.9% of men and 14.0% of women say they made the final decision on their first marriage partner themselves. Regarding education groups, there are only small differences.<sup>35</sup> The share of respondents who made the final decision of their first marriage on their own increases from 12.0% among basic secondary graduates to 19.1% among tertiary graduates. In sum, 30.4% of the tertiary graduates but 37.8% of professional graduates and 38.7% of tertiary graduates report that it was the decision of both of their parents, their father or their mother. Making a joint decision on the marriage partner with the parents affects about one half of all respondents, irrespectively of the education level.

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<sup>34</sup> Differences between gender occur because the male respondents who got married before the date of the interview are different in their characteristics (age, etc.) from the female respondents who got married before the date of the interview.

<sup>35</sup> As indicated before we just report bivariate association. Whether this association mirrors a causal effect of education or whether it is, for example, just a spurious association due to confounding with age (as age is related to education and independence in decision making becomes stronger with age) shall be subject to future multivariate analyses.

Regarding age differences to the spouse Table 6.8 shows a clear gender-specific pattern. Whereas 88.2% of young women who got married report that their husband was older than themselves, this applies to just 5.8% of young grooms. 84.1% of men tell that they have a wife that is younger, whereas this applies to just 4.0% of women. 9.7% of men and 7.7% of women report that their spouse had the same age. There is a negative association between the level of education and having an older spouse and a positive association between the level of education and having a young spouse.<sup>36</sup>

**Table 6.8: Ways of finding spouse, decision on marriage and age difference to spouse (in %), by gender and education**

	Men	Women	Basic Sec./ Upp. Sec.	Init. Prof./ Sec. Prof.	Low. Tert./ High. Tert.
<i>Ways of finding spouse</i>					
Occasionally	18.3	19.3	20.8	15.0	17.3
While working	2.1	2.2	1.0	3.9	3.2
While studying	5.1	7.3	3.6	7.8	9.3
We were neighbors	7.0	6.9	6.7	5.7	7.7
We are relatives	8.8	14.8	12.6	13.8	9.7
Arranged marriage by parents/family	40.3	24.9	31.1	37.5	33.4
Through friends/relatives/acquaintances	9.7	8.6	10.5	6.6	8.1
Through the internet/phone	0.8	0.8	1.0	0.0	0.8
Through religious/charitable activities	0.4	0.3	0.2	0.3	0.7
Through a matchmaker	7.6	14.7	12.5	9.3	9.5
Don't know / Refusal	0.2	0.2	0.0	0.0	0.4
<i>Final decision on first marriage</i>					
Yourself/yourselfs	14.9	14.0	12.0	11.4	19.1
Father	3.5	2.5	1.6	2.7	5.1
Mother	3.7	2.5	3.7	2.1	2.6
Both father and mother	24.7	34.7	33.4	33.0	22.7
Joint decision of yourself and your parents	52.3	44.7	47.4	50.2	49.7
Other relatives	0.9	1.5	1.8	0.6	0.6
Don't know / Refusal	0.1	0.1	0.1	0.0	0.1
<i>Age of spouse</i>					
spouse older	5.8	88.2	58.6	45.7	28.0
spouse same age	9.7	7.7	6.9	11.1	10.5
spouse younger	84.1	4.0	34.1	43.2	61.3
Don't know / Refusal	0.5	0.1	0.4	0.0	0.2

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is restricted to the sample of persons who experienced 1<sup>st</sup> legal marriage before the date of the interview.

<sup>36</sup> As indicated before we just report bivariate association. Whether this association mirrors a causal effect of education or whether it is, for example, just a spurious association due to confounding with gender (as women tend to marry men who are older and gender affects education) shall be subject to future multivariate analyses.



## 6.5. The timing of first parenthood

Event history analysis, which accounts for the right-censoring of data, is also used to study the timing of first parenthood. Figure 6.3 shows Kaplan-Meier survival functions for first parenthood by gender and education. The y-axis shows the proportion of persons who have not yet got a child for a given age that is marked on the x-axis. In addition, Table 6.9 shows the respective figures but from a reversed perspective. For selected ages it reports the share of people who have got a first child until the respective age by gender and education groups. This is equivalent to the distance from the 100% line and the Kaplan Meier survivor function in Figure 6.3.

We find that early parenthood at age 18 or below is a rare event with an incidence of 1% or below in Tajikistan. However, the share of parents rapidly increases with age afterwards, specifically for women. For example, at age 20, already 19% of women got mother but just 2% of men experienced first fatherhood. The gender gap in first parenthood further increases from 17 percentage points at age 20 to 36 percentage points at age 22, when the cumulative incidence of first motherhood is 46% and the cumulative incidence of first fatherhood is 10%. Afterwards, the gender gap tends to decline. For example, at age 25, 41% of the male respondents have become father and 73% of the women have become mother. At age 30, there are almost no gender differences left as 83% of men and 89% of women experienced first parenthood.

The education-specific analyses reveal that the incidence of early parenthood is much higher among lower education groups. For example, until age 20, 23% of basic secondary graduates and 14% of upper secondary graduates became first parent, whereas the incidence is 5% or below for all other education groups. Until age 25, 73% of basic secondary graduates got a first child, whereas for tertiary graduates the incidence of first parenthood is 42–48%. Professional graduates experience an increase in parenthood especially between ages 25 and 27. Until age 27, they reach almost the level of secondary graduates (74–75% vs. 78–81%). All education groups surpass the 75% level at age 30. The lowest incidence of first parenthood is observed among initial professional graduates (75%) and the highest one among upper secondary graduates (92%) at age 30.

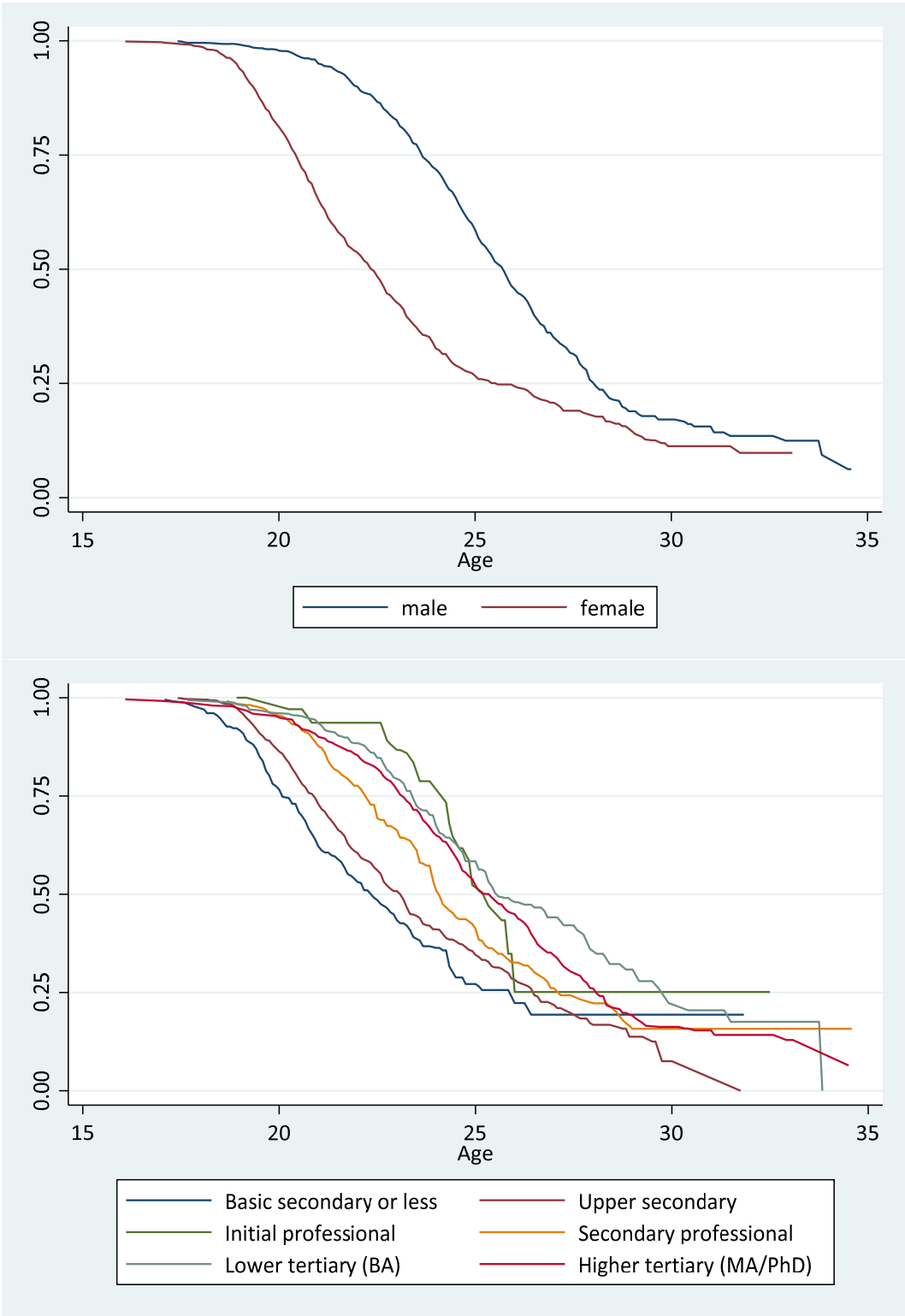
Table 6.10 shows the share of persons who experienced other life course transitions before first parenthood, differentiated by gender and education groups. The analysis and following interpretations are restricted to the sample of persons who have got a first child before the date of the interview. 85% of fathers and 87% of mothers left education before getting a first child. The incidence of leaving education before getting married declines with the level of (prospective) education attainment. Whereas almost every secondary graduate (98–99%), who got a child, left education before getting a child, this applies to 74% of lower tertiary (BA) graduates and 66% of higher tertiary (MA/PhD) graduates. Nevertheless, among all education groups the great majority of persons who experienced first parenthood until the date of the interview leaves education before getting a child.

Just around half of the fathers (56%) but almost all mothers left parental home before getting a first child (90%). Thus, moving out of parental home before first parenthood is the standard life course sequence for women. The share of leaving home before getting a first child is lower for tertiary educated parents than among those with secondary or professional education.

76% of fathers but just 28% of mothers got a first job before first parenthood. This share is highest among professional graduates (67–70%) and lowest among secondary graduates (34–42%), whereas tertiary graduates rank in between (53–57%).

The overwhelming majority of 97% fathers and 95% mothers got married before childbirth. Thus, out-of-wedlock birth are very uncommon in Tajikistan. The pattern of getting married before getting a child is dominant among parents of all education groups, as the share of marriage before parenthood is 90% or above for all education groups.

**Figure 6.3: Kaplan-Meier survival functions for 1<sup>st</sup> parenthood, by gender and education**



Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.  
 Remarks: Analysis are conducted for the whole sample.

**Table 6.9: Share of people (%) who experience 1<sup>st</sup> parenthood until a specific age, by gender and education**

	Age					
	18	20	22	25	27	30
<i>Gender</i>						
Men	0	2	10	41	65	83
Women	1	19	46	73	79	89
<i>Education</i>						
Basic secondary	3	23	47	73	81	81
Upper secondary	0	14	40	65	78	92
Initial professional	0	0	6	48	75	75
Secondary professional	0	5	22	59	74	84
Lower tertiary (BA)	1	4	12	42	56	78
Higher tertiary (MA/PhD)	1	5	15	48	66	84

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis are conducted for the whole sample.

**Table 6.10: Share of people (%) experiencing other life course transitions before 1<sup>st</sup> parenthood, by gender and education**

	Before 1st parenthood ...			
	Leaving education	Leaving home	1st job	1st marriage
<i>Gender</i>				
Men	85	56	76	97
Women	87	90	28	95
<i>Education</i>				
Basic secondary	99	85	34	90
Upper secondary	98	83	42	97
Initial professional	95	75	70	90
Secondary professional	81	82	67	94
Lower tertiary (BA)	74	61	53	99
Higher tertiary (MA/PhD)	66	62	57	98

Source: TEW-CCA Youth Transition Survey in Tajikistan, own calculation.

Remarks: Analysis is restricted to the sample of persons who experienced 1<sup>st</sup> parenthood before the date of the interview.

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