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Youth transitions and lifetime trajectory

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Abstract

Young persons go through diverse transitions between the ages of 15 and 29. In this paper, we explore patterns of reproductive, educational and school to work transitions using data from the ILO School-to-work transitions surveys mainly from low and middle income countries. We find that these transitions are highly interrelated and have important consequences for future pathways or trajectories. The paper also explores specific transitions with conclusions as follows: First, as expected, we find that the reproductive transitions (having children) affects more women than men. Second, 86% of those that stopped studying, either because they dropped out or they have completed their educational transition, have only basic education. Third, the age of starting a first job seem to have significant impact on future labor market prospects as those who started working before 18 are more likely to stay in informal and low-skilled jobs. Youth employment policy design can incorporate these findings with interventions that target the multiple transitions in an integrated manner while promoting youth participation with the understanding that the relative weight of each transition depends on contextual and personal characteristics.

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1. Introduction

At the age of 15, many pathways are open for the youth. Most 15 year-olds are still dependent on others for their livelihood or subsistence. Most are still single, living with their families, possibly still in school and/or sometimes working in the family business or other occasional job.

At the age of 29, they will be different persons. Some of them will be married, living on their own, with or without a career or a degree, some of them will be working; other will be out of the labour force looking after children or remaining in school, etc. The type of pathways they embark on will lead to different personal and labour market trajectories. Milestones in the pathways are marked as transitions.

In this chapter, we explore some of these transitions using the ILO's School-to-work Transitions Surveys (SWTS),¹ implemented in 34 developing countries between 2012 and 2016. Note that our analysis in this chapter is specific to young persons aged from 15 to 29² in the surveyed countries.³

¹ SWTS were carried out between 2012 and 2016 within the framework of the Work4Youth (W4Y) partnership between the ILO Youth Employment Program and The MasterCard Foundation. 53 surveys were completed across 34 developing countries, with results representing 335 million young persons between the ages of 15 and 29. Please refer to Annex B for further details.

² Here, we focus on the broader age-range than the standard United Nation definition of youth (aged 15-24), due to recent phenomenon whereby young people stay longer in education and take longer to enter the labour market. Many countries throughout the world target young persons aged under 30 for their youth employment policies and programmes (O'Higgins, 2017).

³ Data in this chapter are aggregated to look at general trends, but it is important to note that the data vary widely across countries, regions and levels of development. National level reports on the SWTS, regional synthesis and thematic analysis are available on website: www.ilo.org/w4y.

2. Personal transitions: from childhood to parenthood

At the individual level, probably the most important personal transition is the one through which children become adults. For most people, it is at the ages of 15 to 29 years old that they start assuming responsibilities as adults – including taking decisions on civil status and reproduction – and then they stop being dependent and become heads of households or even parents. In many countries, young adults will continue to live in the household of extended family members even following marriage, however, figure 1 does confirm that most young adults attain the status of head of household by the age of 30.

At the age of 15, almost 80 per cent of the respondents to the SWTS answered that their relation to the head of the household was as a son or daughter. At the age of 24 this proportion reduces to almost 45 per cent. At the age of 25 the proportion who are heads of household or the spouse of the head of household surpasses those who answer they are the children of the head of household (dependents).

In this transition period young people begin to live on their own, couple and become parents. Figure 2 shows that at the age of 15, the proportion of young persons declaring having children is very low. However, it increases rapidly with age. At the age of 20, the proportion rises to almost 20 per cent, and at the ages of 24 and 29, it reaches about 50 per cent and 70 per cent, respectively.

Figure 1. What is your relation to the head of the household? (%)



Note: This figures relates to the question “what is your relation with the head of the household”. Less frequent categories (brothers, sisters, other) are not depicted.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Figure 2. Do you have children?



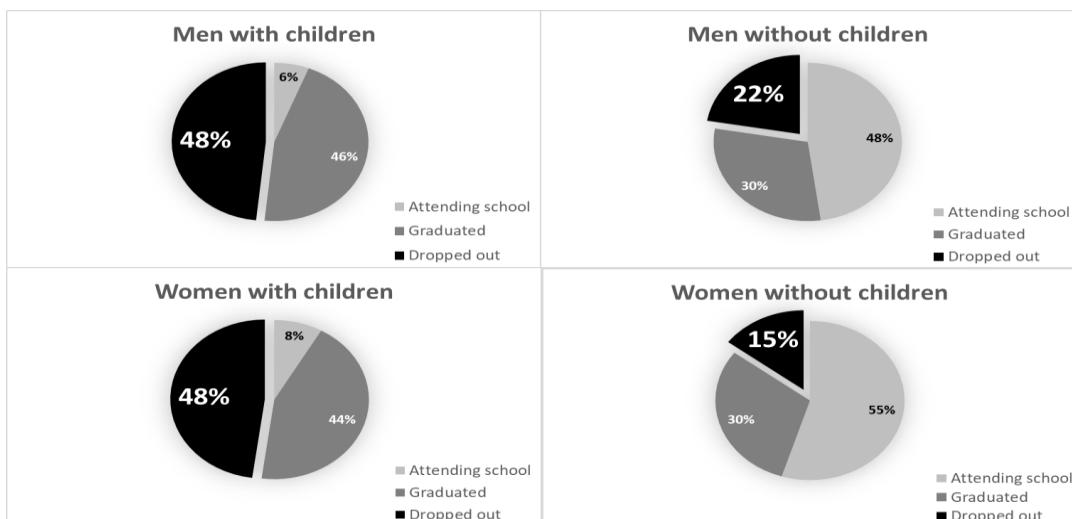
Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

There are significant differences between the sexes. The proportion with children is always higher for women, and it also increases more rapidly over the age span for young women. In fact, at the age of 29, around 82 per cent of women reported having a child, while only 63 per cent of men reported so. The simplest explanation here, backed by research, is that, on average, women marry at a younger age than men and give birth to a first child at a younger age than men (Elder and Kring, 2015)..

The transition to parenthood is a major one, with important consequences for labour market trajectories, especially when paternity or maternity were not planned. In practice we observe that young adults with children have the highest rates of early school departure (figure 3). Likewise, figure 4 shows that the proportion of young persons that are not in education, employment, or training (NEET)⁴ clearly increases for youth with children, especially young mothers. Youth employment, educational and training policies will need to consider the degree to which parenthood interrupts labour market itineraries and consider mitigating policies.

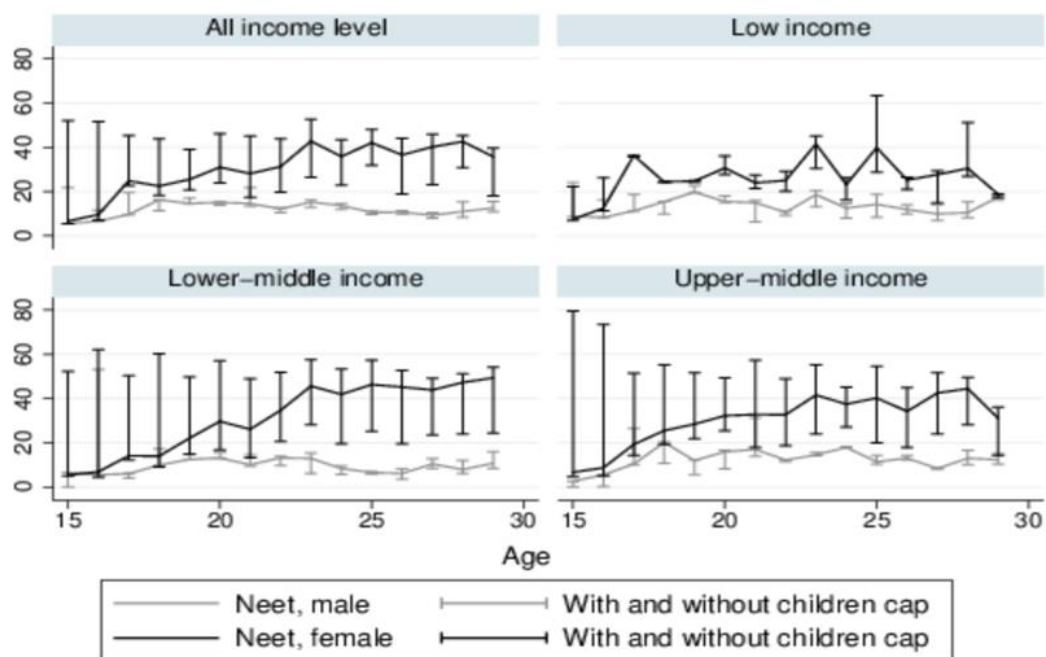
⁴ Note that the proportion of NEET in the youth population is a SDG indicator (indicator 8.6).

Figure 3. Early school departure rates by parental status and sex (%)



Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS). See figure A3 in Annex for breakdown by income level.

Figure 4. Proportion of NEETs in youth population by parental status and sex (%)



Note: The data with missing information on parental status is not included in the calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

3. The educational transition: from basic to higher education

Most persons enter the labour market following a period of schooling. The educational experience can be a major driver of young persons' labour trajectories as well as their personal life trajectories.

In table 1, we observe that regarding education, out of the total surveyed youth population, there are three major groups. More than one third (37 per cent) of the sampled youth was still studying; another third (30 per cent) had already completed the education level they aspired to; and the other third (33 per cent) had dropped out from education. Some 61% of this last group have only elementary level education (primary or less). Of course there are differences across the world's regions. Low-income countries, for example, show the largest share of young people who complete or leave their education at the primary level.

Table 1. Distribution of youth population by education level (%)

	Total	Currently studying	Not currently studying		
			Total	Already completed education	Dropped out
<i>All countries</i>	100	37	63	30	33
Elementary level (primary or less)	28	4	24	4	20
Secondary level / high school	49	19	30	18	12
Post-secondary – vocational	11	8	3	3	0
University / post degree	8	1	7	6	1
Other	4	4	0	0	0
<i>Low-income countries</i>	100	40	60	28	33
Elementary level (primary or less)	43	7	36	10	26
Secondary level / high school	47	26	21	15	6
Post-secondary – vocational	7	6	1	1	0
University / post degree	2	1	1	1	0
Other	0	0	0	0	0
<i>Lower middle-income countries</i>	100	34	66	29	37
Elementary level (primary or less)	26	2	24	3	21
Secondary level / high school	50	20	30	15	15
Post-secondary – vocational	14	11	3	3	0
University / post degree	9	1	8	8	0
Other	0	0	0	0	0
<i>Upper middle-income countries</i>	100	39	61	33	28
Elementary level (primary or less)	21	4	17	1	16
Secondary level / high school	50	17	33	23	10
Post-secondary – vocational	11	7	4	3	1
University / post degree	8	2	6	5	1
Other	10	10	0	0	0

Note: Those with missing information on their current attendance status to education are excluded from the calculation. For those 'currently studying', the distribution shows which level of education they are currently attending. For those 'not currently studying', the distribution shows the final level of education they achieved. 'Other' type of education level includes short-term courses and formal apprenticeships and internship programmes.

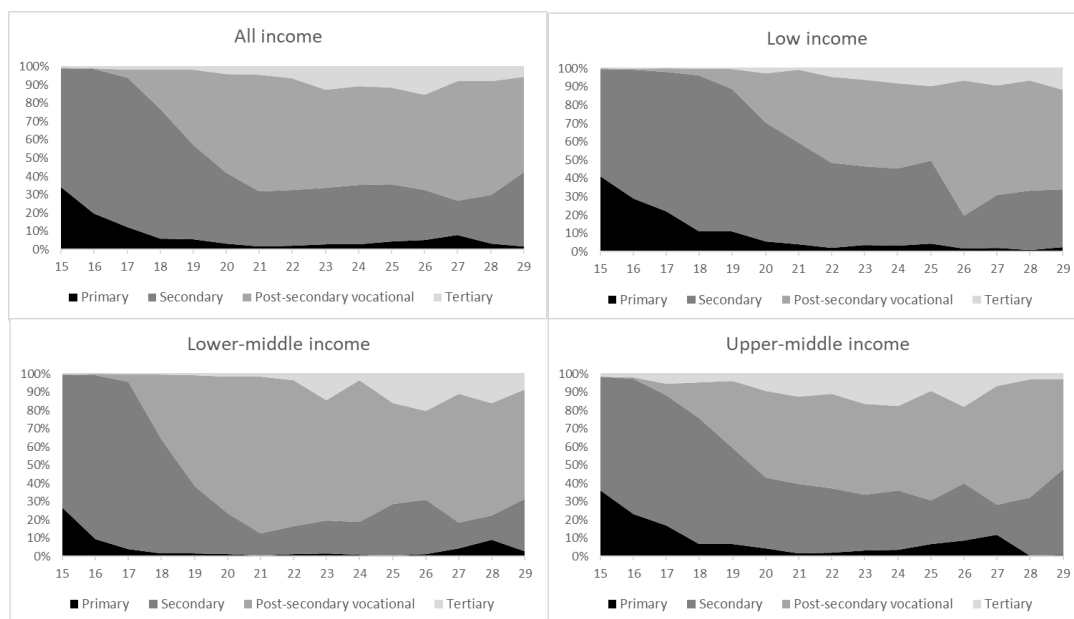
Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Of the 30 per cent of respondents that declared they had already completed their education, 13 per cent had only reached primary level (4 per cent of all youth) and about 60 per cent had secondary level degree (18 per cent of all youth). In total, nearly three in four youth (73 per cent) who consider they have completed their education transition had no higher than secondary level education. And this percentage is 86% if we consider all those that stopped studying either because they completed their transitions or they dropped out. As each group is at a different stage of their transitions, they are analyzed separately here.

3.1 Currently studying

At age 15, most young persons should still be studying in some way. Unfortunately, this is not always the case and – as we have seen before - at this age some of them have already dropped out from education for various reasons. If we focus on those that are currently studying, we can track the transition from one level of education to the next. Figure 5 shows that at the age of 15, some 40 per cent of the youth were currently studying at the elementary or primary level while the rest were in secondary education. At higher age increments, youth increasingly move into the secondary, post-secondary vocational and tertiary levels. Of course there are important variations across regions.

Figure 5. Level of the education that youth are currently studying



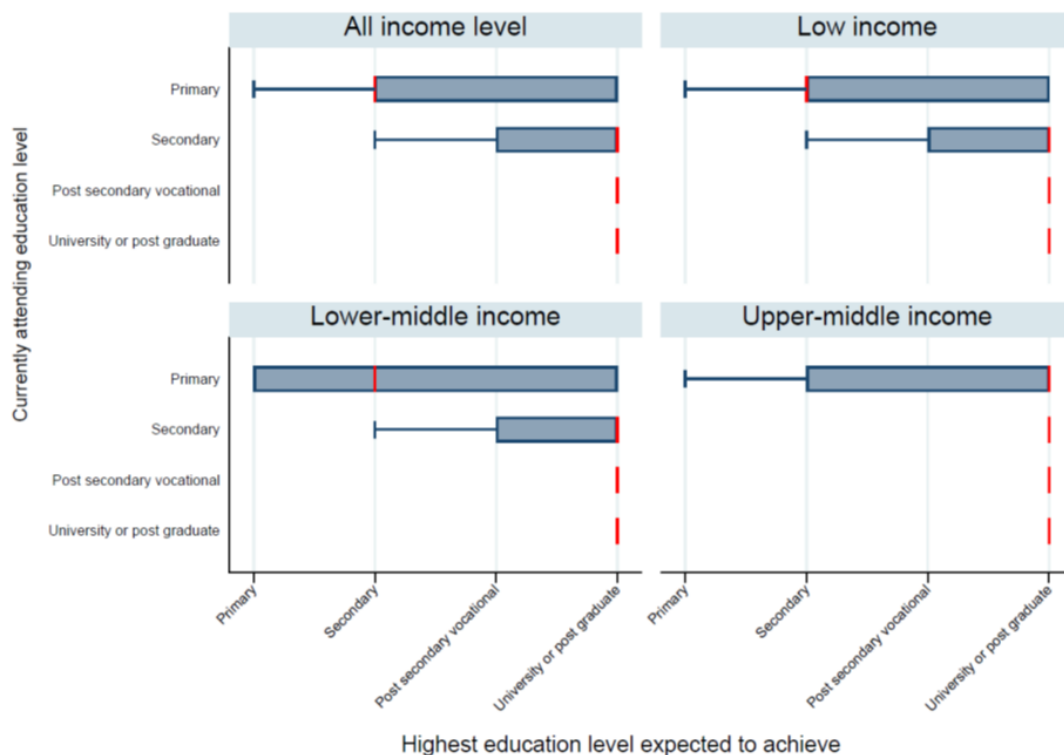
Note: Only those who are currently attending education are taken into consideration. Other forms of education such as internship, apprenticeship and short-term courses are not included in the calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

While the majority of young people enter the labour market with only basic education, most of them have higher educational expectations. Figure 6 shows the highest expected level of education according to the level of education in which the young person is currently studying. The box is drawn at the first and the third quartiles, and the red line indicates the median. For those currently attending primary education, the distribution of the highest expected level of education is spread from secondary education to university or higher, and the median is secondary level. For those currently attending post-secondary vocational school or beyond, the expectation distribution is concentrated in universities or higher. Note that students from upper middle-income countries show stronger expectation for higher level of education than other income level.

In general, a majority of young people show high expectations for their final education level (post-secondary level), which is much higher than the average education achievement level in these countries (figure 6). The high expectations reflect the value that young persons place on education. That their expectations are oftentimes not met can be explained as follows: First, our sample here is limited to those who are currently attending schools. Those not attending school could have lower expectations. Second, sometimes young persons must leave school before reaching their desired level for specific reasons. According to the SWTS results, 37 per cent of youth left early for economic reasons, 16 per cent lacked interest in continuing and 12 per cent left to get married

Figure 6. What is the highest level of education you would like to get?



Note: Adjacent values (extreme values) are not depicted in the graph.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

3.2 Already finished studying

To those that declared that they have already finished studying, the SWTS asked which field they studied. Around 49 per cent responded that they studied general programmes (which is typical of those finishing at the secondary level), and 45 per cent pursued a specific programme. The percentage of who followed specific programmes is close to 100 per cent for those who graduated from post-secondary vocational or university and beyond. According to table 2, among the most frequent responses for field of study are social sciences, business, engineering and manufacturing. Among those with university degree or beyond, there is a marked concentration on fields of social sciences or business.

Table 2. What did you study? (%), by highest level of completed education

	Primary	Secondary	Post-secondary (vocational)	University and post-graduate	Total
All income level					
General Programs	87	51	2	1	49
Specific Programs	4	45	88	92	45
Education	4	7	8	12	7
Humanities and arts	0	2	4	11	4
Social Sciences, Business	0	11	21	36	14
Science, Mathematics,	0	1	9	10	3
Engineering, Manufacturing	0	16	20	10	10
Agriculture and veterinary	0	3	2	2	2
Health and Welfare	0	3	10	7	3
Other services	0	2	14	4	3
N/A	8	4	10	7	6
Low income					
General Programs	93	70	5	6	82
Specific Programs	4	25	85	85	14
Education	3	12	26	15	6
Humanities and arts	0	5	8	16	2
Social Sciences, Business	0	4	14	37	3
Science, Mathematics,	0	1	9	6	1
Engineering, Manufacturing	0	2	6	4	1
Agriculture and veterinary	0	0	13	1	1
Health and Welfare	0	1	6	6	1
Other services	0	0	3	1	0
N/A	3	5	10	9	4
Lower-middle					
General Programs	89	47	2	1	38
Specific Programs	7	49	89	93	57
Education	7	6	7	11	7
Humanities and arts	0	1	2	10	3
Social Sciences, Business	0	13	22	42	19
Science, Mathematics,	0	1	9	9	3
Engineering, Manufacturing	0	20	22	9	14
Agriculture and veterinary	0	4	2	3	3
Health and Welfare	0	2	9	5	3
Other services	0	2	17	5	4
N/A	4	4	9	6	5

	Primary	Secondary	Post-secondary (vocational)	University and post-graduate	Total
Upper-middle					
General Programs	13	43	2	1	18
Specific Programs	7	54	83	88	64
Education	1	4	7	11	7
Humanities and arts	0	2	8	14	7
Social Sciences, Business	0	11	21	20	14
Science, Mathematics,	0	2	8	14	7
Engineering, Manufacturing	2	18	19	13	14
Agriculture and veterinary	0	2	1	1	1
Health and Welfare	2	8	13	11	9
Other services	1	7	7	3	5
N/A	80	3	15	11	18

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Note that the percentage of young people that reported studying specific programmes increases with income level, which reflects the higher share of tertiary educated youth in higher income countries. It is 18 per cent in low income countries, 62 per cent in lower middle income and 82 per cent in upper middle income. Also, some careers such as engineering are more represented in middle income countries than in low income countries.

The literature has paid great attention to those people that are studying specific programmes, asking questions like how they chose these careers. In most cases, the SWTS does not provide much evidence on the process of educational choice.⁵ However, a recent survey in Latin American and the Caribbean (LAC) region provides some insights on this process (ILO, 2017a). In that region, there seems to be two major types of causes for career choices. The first one is related to the idea of where good future job opportunities will exist. There are 37 per cent of the youth that chose their field of study based on this reason. In particular, this is true for those young persons that are studying business or careers related to science, technology, engineering and mathematics (STEM). A second reason is altruism – the sense of wanting to be in a career that ‘makes a difference’ to society, which is particularly high for those that are studying social science and arts/humanities.

Table 3. How does the youth choose their careers in LAC?

	Business	Social Science	Arts and humanities	STEM	Other	Total
Good future job opportunities	53	26	24	48	21	37
Altruism	12	47	54	27	55	35
Personal skills	26	37	34	21	15	27
Personal interests	27	45	25	29	12	27
New degree/career	23	17	17	33	20	21
Parents/context	8	9	7	11	8	8

Source: Online survey, ILO, 2017a.

⁵ Except for the case of Ukraine, which has a whole section on the topic.

Apart from educational choice, some other discussions are related to the pertinence and quality of education. The educational service, especially education as preparation for work in the private sector, usually presents market imperfections, as its quality can be observed only sometime after the service is provided. This asymmetry in the information needs to be dealt with appropriately in policy instruments. Young students cannot be expected to choose well their field of study based on where the jobs will be if the information on this does not exist or is asymmetric. We will come back to this question in the next section on the transition to work.

3.3 Early school leavers

Those that have left school before completion were asked about the reasons. The most frequent response is related to economic reasons (37 per cent), meaning that there is a continuing problem of income-related access to the educational system. It is the biggest reason for non-completion, regardless of the education level, however, this response is much more frequent in low income countries (51 per cent) than middle income countries. In some cases, this is true even in public education systems, because the family requires the youth to work in order to start contributing to the family economy.

The second most frequent answer is related to not having interest in education (16 per cent). Interestingly, this is the second main reason for those who only have primary education or less and could reflect a lack of resources on the part of the school to invest in facilities, teachers and equipment that might better motivate the students. Education can be seen as an investment for higher future incomes. If the youth realize that even if they study, their future profiles will not get better, then they will start questioning the role of education as a social progress mechanism.

To get married is another important reason (12 per cent). This answer was popular especially among those who left secondary level education (21 per cent) which reached up to 27 per cent in lower middle-income countries. Among those who left basic education (primary or secondary level), the reason associated with having failed examinations is also important (10 per cent). In this case, this reason could be associated with family aspects, such as the family educational “environment”, for example. Numerous studies have been made to demonstrate the correlation between parents’ and children’s levels of education. The higher educated the parent, the higher the likelihood of the child to study into the upper levels.

Table 4. Why did you stop studying? (%)

	Primary or less	Secondary	Post-secondary (vocational)	University and post-graduate	Total
All income level					
Failed examinations	9	10	2	2	9
Not interested in education	17	13	3	5	16
Wanted to start working	6	12	14	19	9
To get married	8	21	11	8	12
Parents did not want	4	4	1	0	4
Economic reasons	41	30	49	51	37
No school nearby	2	1	2	0	2
Other	13	9	19	15	12
Low income					
Failed examinations	8	20	5	5	10
Not interested in education	14	10	5	2	13
Wanted to start working	2	6	9	47	3
To get married	5	14	20	11	7
Parents did not want	3	2	0	0	3
Economic reasons	54	40	46	33	51
No school nearby	1	1	0	0	1
Other	14	8	15	3	13
Lower middle-income					
Failed examinations	11	11	8	6	11
Not interested in education	25	16	11	9	20
Wanted to start working	6	10	21	17	7
To get married	7	27	1	16	15
Parents did not want	7	5	0	2	6
Economic reasons	38	27	44	38	34
No school nearby	2	1	0	2	1
Other	4	3	15	11	5
Upper middle-income					
Failed examinations	6	4	0	0	5
Not interested in education	7	8	1	4	9
Wanted to start working	11	19	13	15	15
To get married	11	12	10	6	11
Parents did not want	0	0	1	0	0
Economic reasons	32	34	51	57	32
No school nearby	4	2	3	0	3
Other	28	22	20	17	24

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

4. The transition to work

After having studied, up to any level, most young people enter the labour market. In many cases, entry is not an easy matter. They may enter a labour market plagued by high unemployment and informality rates. They may find that the distribution of quality jobs is not biased in their favor, especially in the first job. In general, what they have accumulated in the educational system is a key determinant of their future pathways.

4.1 The first job

Most discussion has focused on the first job.⁶ ILO (2017b), also based on the SWTS, shows that the average age of starting the first job is around 19 with differences depending on education levels. Those with only elementary education start working around age 17, i.e. as working adolescents (figure 7).⁷

Figure 8. Time to first job



Note: The red line indicates the average months spent to find the first job regardless of the employment status. Only those whose job at the time of survey was same as their first job (thus, same employment status) are taken into calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

It takes time for youth to find the first job and when they find it, it is usually not their ideal jobs. ILO (2017b) reports that the average time to find a first job was 11.6 months; 12.5 months for young females and 11.3 months for young males; 19.6 months for those with primary education compared to 6.5 months for youth with tertiary education. And of course there are significant differences among regions. The longer durations were found to be those of youth with primary education in upper middle-income regions. The study also finds that the first job is not necessarily the best and that it takes a young person on average

⁶ See, for example, Dema, Diaz and Chacaltana, 2015.

⁷ See ILO, 2017b, Table 3.2 for a detailed explanation and comparison between the first job and the first transitioned (good) job. Note that numbers here vary from ILO, 2017b as that report had excluded young persons who hold a first job but not a first transitioned job from the calculation.

some 13.8 months to find a job that provides them a stronger sense of satisfaction and security.

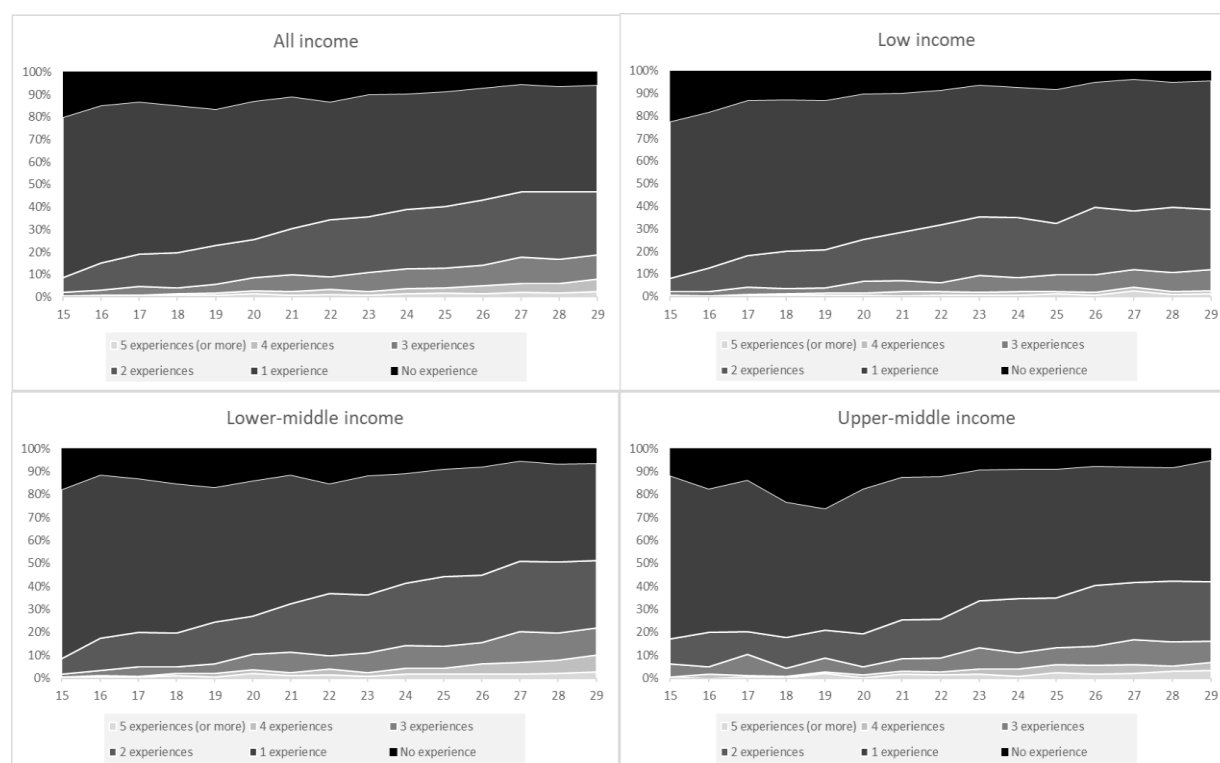
We further examine how the time to find a first job varies across the current status of employment. For those who were currently working as an employee, it took around 11 months to find the first job, while it took around 7 months for those who were working as unpaid family workers or employers (figure 8).

4.2 Building a lifetime trajectory

ILO (2017b) also mentions that the first job is not the only one that a young person will have in their lifespan. A young person will have numerous employment, unemployment and even inactivity spells in his or her life. Among all ages of youth 15-29, the average number of employment experiences (or spells) is around 1.5, however the number of experiences increases with age. Figure 9 shows the distribution of number of experiences by age.

O'Higgins et al. (2017) observed that for most young persons with lower levels of education, the expected trajectory is informal employment. Those with higher education have more probabilities to escape from the informal economy even if they started working informally. Chacaltana, Bonnet and Leung (2019) emphasize the role of that the youth labour market structure has on informality rates, especially where labour markets have a higher proportion of contributing family workers, who are, by definition, informal workers. Many youth, especially those that enter the labour market before 18 years old, start working as unpaid family workers or own account workers. It is when they grow older that young people start working as employees. Working as employee is a pathway towards formality, although not a definite path since many working arrangements remain without contract and of short duration.

Figure 9. Number of labour market experiences by age



Note: Total youth population is used in the calculation. However, data with no information on the number of experiences are excluded from the calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

People with different starting ages at the first job seem to have different characteristics and different economic outcomes. Most of the youth surveyed by the SWTS who started working before 18 had only elementary education and were working in informal employment (82 per cent) at the time of the survey (table 5). In contrast, informality rates as well as probabilities to end up working in low-skilled jobs are found to be the lowest for those who start working between 18 and 24.

People who started working before 18 are also more likely to end up working in low-skilled jobs, particularly in low-income countries. We assume that there could be two types of reasons to start working late. One is to get higher education and the other is simply because they could not find a job. Note that, for example, only 25 per cent of young persons who started working after 24 are with tertiary education in upper middle-income countries. It means that their employment was delayed due to other reasons than education.

There is a clear segmentation in the employment status of young workers by level of education. Those with tertiary education reach higher shares of paid work as employees with little change across the ages (figure 10). On the contrary, for those with only primary education, while the shares in paid employment remain flat across the ages, the share of own-account workers increases while contributing family workers decrease. This implies that many youth shift from contributing family work to own-account work rather than to paid employment.

These trends also reflect the structure of the labour market. Those countries with higher youth populations with only primary education also have labor markets that generate low-skilled work. On the contrary, those countries with more young people in higher education have labor markets that produce higher skilled formal jobs. The most important challenge here is to simultaneously improve capacities via better education and labour market institutions and strengthen economic structures to generate better jobs.

Table 5. Personal and labour market characteristics, by age at first job (%)

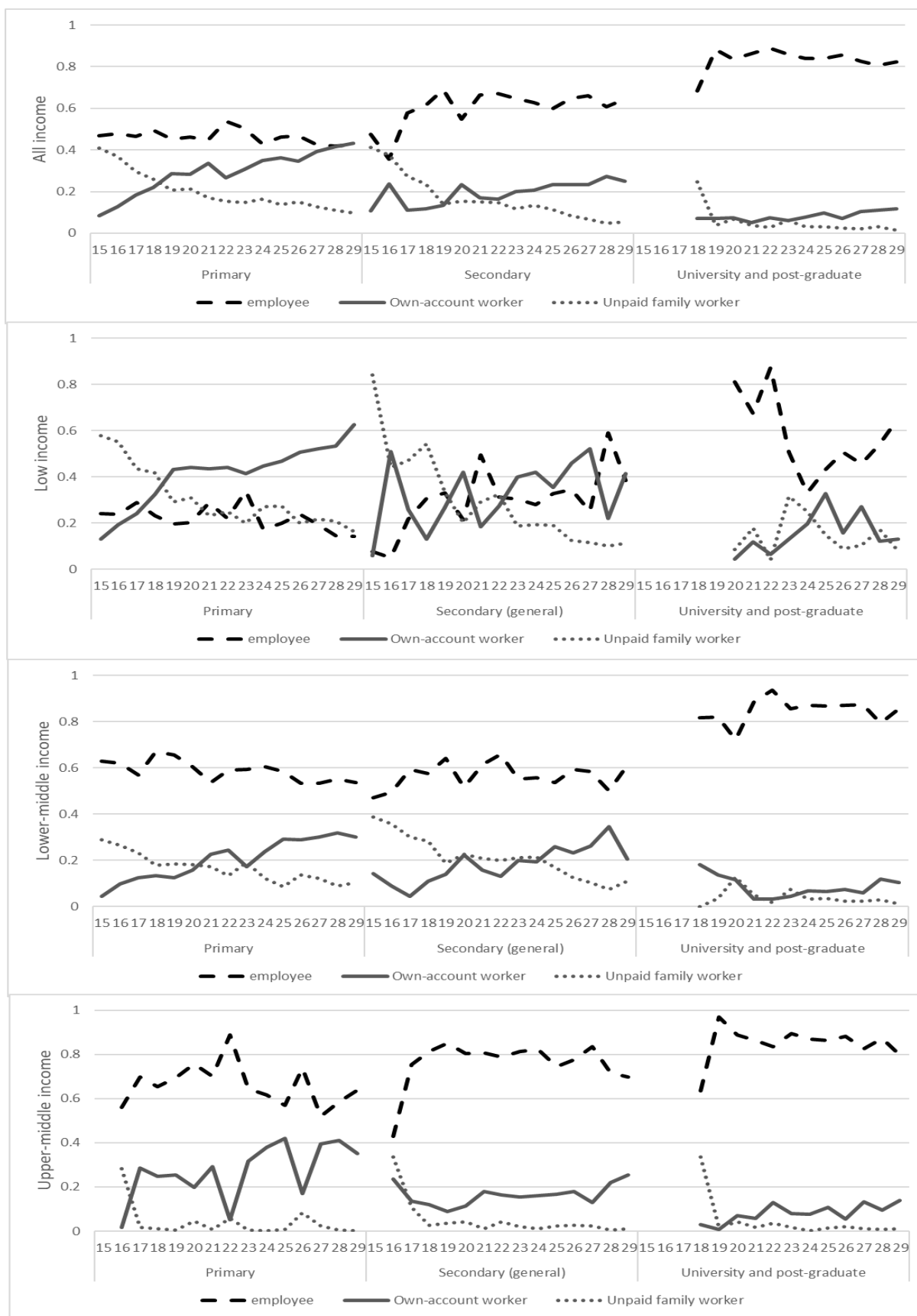
	Before age 18	Between 18 and 24	After age 24
All income level			
Female share	40	44	55
Informality rate	82	66	70
Unemployment rate	7	8	7
Undereducated	33	18	19
Overeducated	7	13	15
<i>% Tertiary education</i>	6	24	32
<i>% Low-skilled job</i>	36	20	23
Low income			
Female share	49	44	52
Informality rate	91	83	86
Unemployment rate	4	2	2
Undereducated	53	42	34
Overeducated	3	11	11
<i>% Tertiary education</i>	1	7	29
<i>% Low-skilled job</i>	60	42	35
Lower middle-income			
Female share	37	36	55
Informality rate	93	73	73
Unemployment rate	4	6	6
Undereducated	41	14	21
Overeducated	5	18	19
<i>% Tertiary education</i>	8	50	55
<i>% Low-skilled job</i>	40	17	17
Upper middle-income			
Female share	38	48	56
Informality rate	68	55	63
Unemployment rate	11	11	10
Undereducated	16	12	14
Overeducated	10	12	15
<i>% Tertiary education</i>	9	17	25
<i>% Low-skilled job</i>	20	15	22

Notes: Employed young persons with missing information on age at first job are excluded from the calculation. Tertiary education includes post-secondary vocational and university or post-graduate education. Low-skilled jobs include elementary occupations and agriculture (ISCO-08).⁸

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

⁸ According to ISCO-08 classification, skilled agriculture belongs to medium skilled occupations. However, agricultural labourers belong to elementary occupations, which is low-skilled job. Here, we classify agriculture in low-skilled jobs as many low-skilled agriculture workers are likely to be miscoded to the skilled agriculture group. For detailed ISCO-08 classification, see ILO, 2012.

Figure 10. Status in employment by age and level of educational attainment



Note: Members of producers' cooperatives and status not classifiable are not shown. Under represented populations (few observation at certain age group with certain education level) are not depicted.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

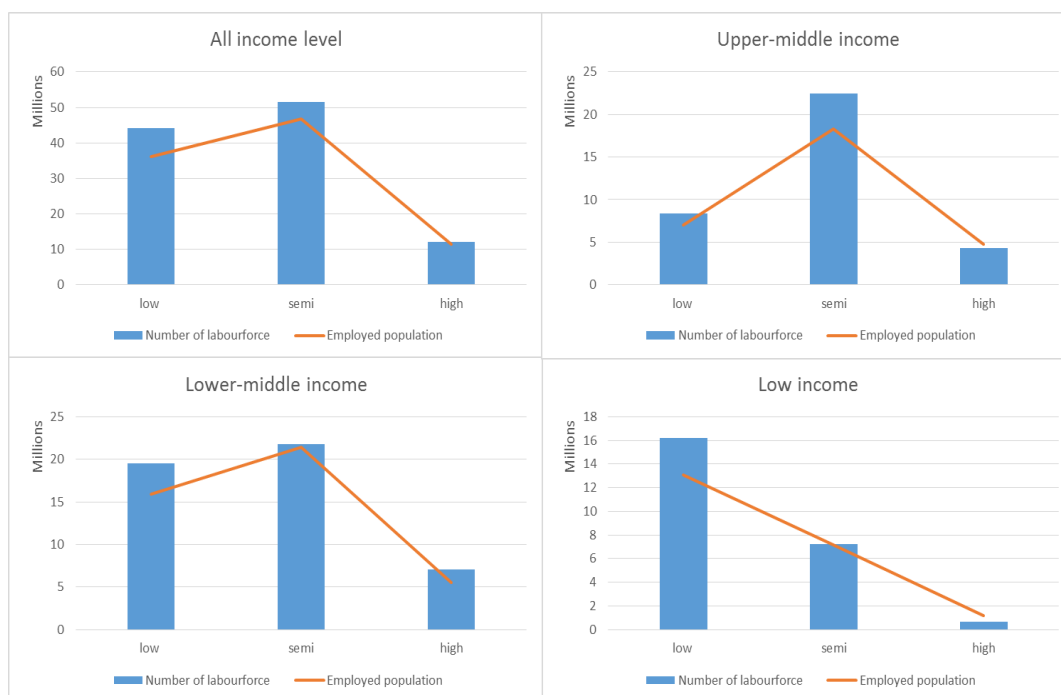
5. Skills mismatch

The discussion on skills mismatch has recently been addressed in McGuinness, Pouliakas and Redmond (2017). There are diverse dimensions of mismatch.⁹ Here we focus on vertical mismatch, comparing the skills level of the young worker (education level of young labour force) to the skills level of the jobs available in the labour market (skills level associated to the occupations of the young workers) (figure 11). Following the usual occupation-education level matrix, occupations that typically involve simple and routine physical or manual tasks are categorized as low-skilled (skill level 1, primary level education). Occupations at medium skills level include tasks such as operating machinery or clerical knowledge (skill level 2, secondary level education) and high-skilled occupation typically involve complex technical and practical tasks such as managers, professionals, or technicians and associate professionals (skill levels 3 and 4, tertiary level education).

Based on the SWTS data, we find there are a large number of youth with only basic level of education (low-skilled) in the labour force, and that their supply is significantly larger than the number of available low-skilled occupations in the market. On the other hand, the number of young labour force with high skills roughly meets the number of available high-skilled occupations, although there can be misalignment in the composition of skills demanded and the volume of high skill youth (horizontal skills mismatch).

⁹ See for example, European Commission, 2015.

Figure 11. Number of youth in the labour force versus the number of youth occupied, by skill level



Note: Low skills include elementary occupations and agriculture.¹⁰ The medium skills include craft and related trades workers, plant and machine operators and assemblers, clerical support workers, and services and sales workers. High skill occupations include administrative, professionals and technicians and associate professionals). To categorized labour force by skills level, we follow ISCED-11:¹¹ low skill includes primary education or less, medium skills includes secondary and post-secondary education, and high skills include tertiary education or beyond. Young persons with missing information on their final completed education level are excluded from calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

There are notable differences in the distribution of the labour force and employment by skills level across income level. The concentration of labour force toward lower level of education is most obvious in low-income countries. On the other hand, the young labour force with high level of education (high-skilled) are in shortage both in low-income countries and upper middle-income countries. In other words, in these countries, there are youth working in high-skilled occupations without high level of education, implying that they might be “undereducated” for their jobs. The analysis of SWTS data shows that some 52 per cent of employed young persons in low-income countries answered that they felt themselves to be “under-educated” for their jobs, while the rate was only 36 per cent and 17 per cent in lower middle-income and upper middle-income countries, respectively.

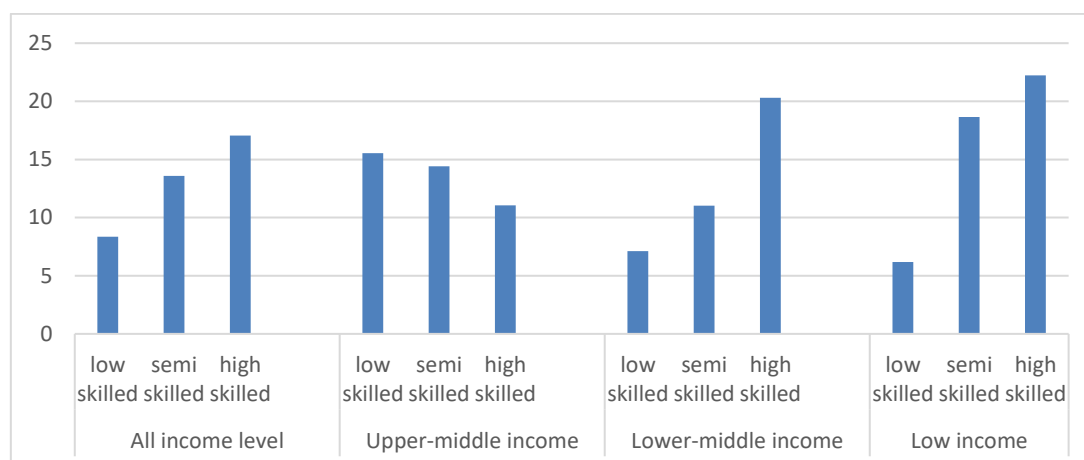
In figure 12 we further examine the unemployment rate by skills level. Unemployment rates of the high-skilled labour force are the lowest among the skills groupings in the upper middle-income countries. However, the inverse is true of low-income countries (highest unemployment rate is faced by the high-skilled labour force). In these countries, even though the number of high-skilled available workers in the market is low, the number of available high-skilled jobs is also low, hence the longer transition period and higher unemployment rates. In addition, we observe very low unemployment rates for low-skilled labour force in low-income and lower middle-income countries. In these countries, it is often the case that

¹⁰ According to ISCO-08 classification, skilled agriculture belongs to medium skills occupations. However, agricultural workers belong to elementary occupations, which is a low-skilled job, and many low-skilled agriculture workers are likely to be miscoded to the skilled agriculture group. For detailed ISCO-08 classification, see ILO, 2012. International Standard Classification of Occupation, Vol. 1.

¹¹ According to the ISCED-11 classification, primary and lower-secondary education is categorized as basic education while upper-secondary and post-secondary is categorized as intermediate education. We define secondary education level as intermediate education level (medium skills).

informal employment is widely available and is more frequently taken up as the option of unemployment with no income generating activity is not viable (ILO, 2016)

Figure 12. Unemployment rate by skills level (%)



Note: Unemployment by skills level is calculated as: unemployed young persons with certain skills level / youth labour force with the skills level * 100. Education level is used as a proxy for skills level. We follow ISCED-11.¹² (Low skill includes primary education or less, medium skills includes secondary and post-secondary education, and high skills include tertiary education or beyond). Young persons with missing information on their final completed education level are excluded from calculation.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

At the micro level, it is also worthwhile to look at the fields of study of surveyed youth according to the labour market outcomes. Table 6 shows that some of them exhibit higher probability of being unemployed or work in informal employment, and are more willing to change their current employment situation.

In order to reduce the mismatch level, it is necessary to know what the labour market is going to demand in the coming years or to prepare people with skills that are useful in many jobs. Both methods have been implemented in practice although there is little evidence on the impact of these measures. In particular, most efforts have been done in order to anticipate market demands.¹³ For example, Chang, Rynhart and Huynh (2016) find that there are higher demand for workers with strong STEM education in ASEAN. Also, there are active programs to provide technical assistance on identifying the skills required for future success.¹⁴ However, some recent studies indicate, as the production systems are changing so rapidly, mismatch could become the new normality in the future. So the option to prepare persons for a lifelong learning and continuous reskilling will increase in importance in the future (ILO, 2017b).

¹² According to ISCED-11 definition, primary and lower-secondary education is categorized as basic education while upper-secondary and post-secondary is categorized as intermediate education. We define secondary education level as intermediate education level (medium skills).

¹³ See for example, Gonzalez-Velosa and Rucci, 2016

¹⁴ For instance, Skills for Trade and Economic Diversification (STED) support decent employment creation in sectors with high growth potentials in exports.

See <http://www.ilo.org/skills/projects/sted/lang--en/index.htm> for details.

Table 6. Labour market indicators by field of study of young persons (%)

	Unemployed	Informal	Would like to change job	Under-educated	Over-educated
All income level					
General programmes	7	91	49	34	10
Education	19	73	42	16	21
Humanities and arts	22	55	38	4	24
Social Sciences, Business	19	60	43	4	28
Science, Mathematics,	15	54	41	6	33
Engineering, Manufacture	15	66	49	8	21
Agriculture and veterinary	16	83	54	8	18
Health and Welfare	12	49	33	17	16
Other services	14	58	29	5	22
NA	15	78	44	18	3
Low income					
General Programs	6	94	57	55	2
Education	8	89	50	34	7
Humanities and arts	7	85	47	12	16
Social Sciences, Business	22	77	56	6	22
Science, Mathematics,	15	85	44	9	19
Engineering, Manufacture	15	78	48	16	14
Agriculture and veterinary	10	98	35	40	7
Health and Welfare	12	74	37	29	9
Other services	14	76	59	28	4
NA	16	87	61	18	2
Lower middle-income					
General Programs	7	89	41	13	18
Education	8	70	39	10	28
Humanities and arts	33	59	36	2	26
Social Sciences, Business	20	63	44	4	28
Science, Mathematics,	16	67	42	9	34
Engineering, Manufacture	16	73	49	9	17
Agriculture and veterinary	14	82	57	3	20
Health and Welfare	13	48	25	24	8
Other services	13	59	26	4	23
NA	11	92	35	26	1

	Unemployed	Informal	Would like to change job	Under-educated	Over-educated
Upper middle-income					
General Programs	23	73	48	8	11
Education	14	51	42	2	14
Humanities and arts	16	30	34	2	27
Social Sciences, Business	14	40	34	4	32
Science, Mathematics,	14	22	40	1	34
Engineering, Manufacture	15	42	49	5	35
Agriculture and veterinary	39	62	51	4	16
Health and Welfare	10	46	44	6	28
Other services	16	51	36	4	23
NA	17	64	45	10	6

Note: Note that general programmes are mostly provided at primary and secondary schools. Therefore, young persons who studied general programmes are likely to be holding less than tertiary education.

Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Conclusions

Young persons go through diverse transitions between the ages of 15 and 29. In this paper, we explore patterns of reproductive, educational and school to work transitions using data from the SWTSSs, mainly from low and middle income countries. This empirical contribution allows us to confirm that all these transitions are highly interrelated and they have important consequences for their future pathways or lifetime trajectories. The paper also explores specific transitions and comes to the following conclusions. First, as expected, we find that the reproductive transitions (having children) affects more women than men. Second, 86% of those that stopped studying, either because they dropped out or they consider they have completed their educational transition, have only basic education and no further preparation for work. Third, the age of starting a first job seem to have significant impact on future labor market prospects as those who started working before 18 are more likely to stay in informal and low-skilled jobs. The results also shows that working as an unpaid contributing family member is the one of the most frequent first work experience, especially for those with lower education and in lower income countries.

The fact that frequently it takes several months for a young person to find a job, also implies that these transitions are sometimes interrupted and these can be detrimental in terms of skills and experience acquisition, critical for lifelong employability and a trajectory of decent work

The direct policy implications of our findings point to the need that youth employment policies need to take into account this enormous heterogeneity and support the broad array of trajectories that people follow in the period that defines their youth, with the overall aim of building their capacity for lifelong employability. Traditionally, the majority of youth employment programmes have targeted only one transition which may have limited their potential impacts. Managing multiple youth transitions can be done via strong multi-intervention coordination (an integrated approach) and / or including specific advisory or coaching for lifelong trajectories in each intervention. The policy approach to supporting these trajectories in an integrated and with a lifetime perspective will need to be implemented carefully according to national circumstances.

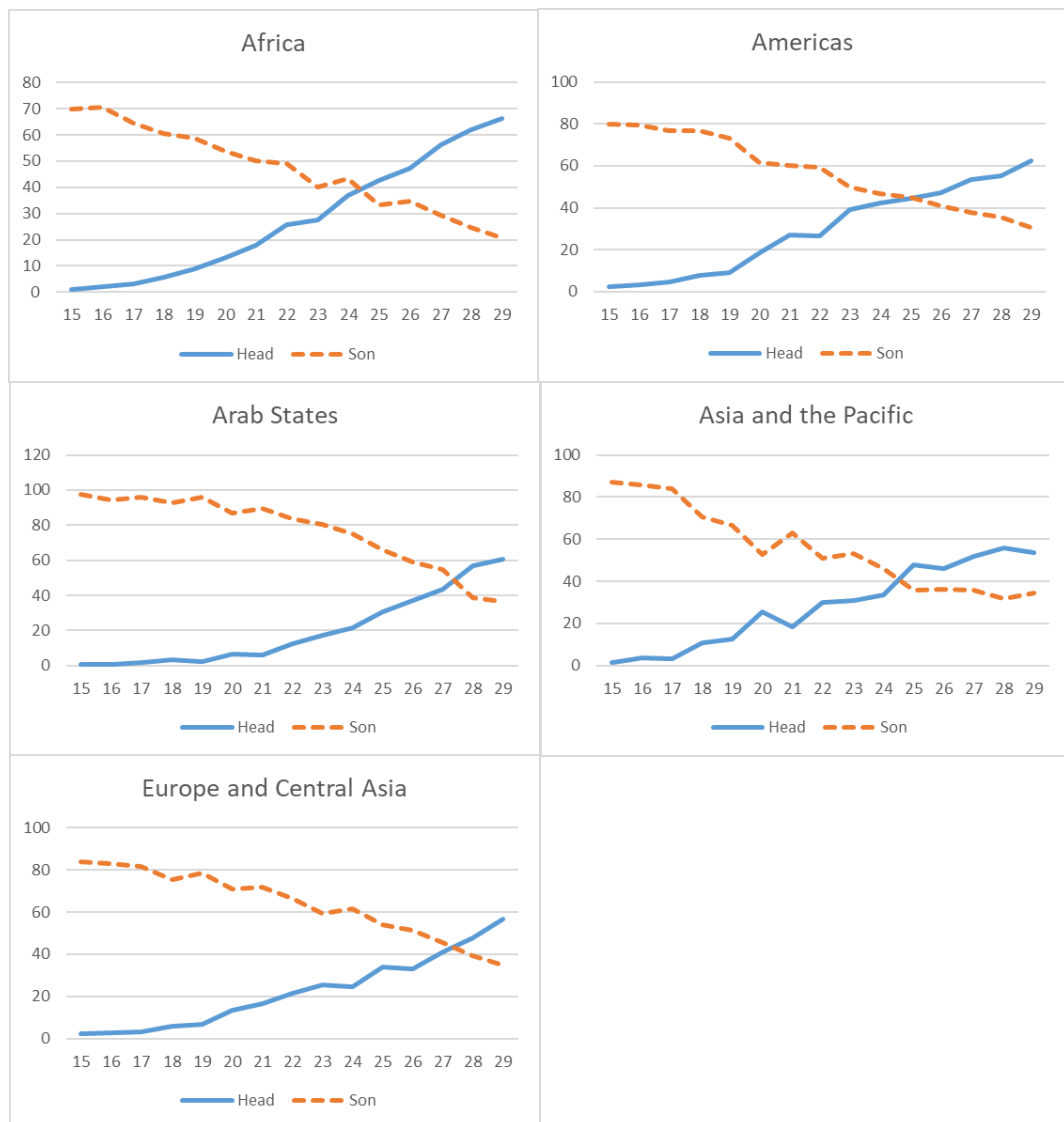
ILO (2017b) offers some policy recommendations in the area of supporting the transitions of young people. For example, it advises that school curricula need to be adapted for increased enhancement of digital skills and technical competencies in keeping with the increasing technological content of jobs taken up by today's youth. It also mentions the importance of work-based training, such as quality apprenticeships, which requires a collective effort of governments, social partners and training providers to ensure effective curricula for youth employment. It also notes the importance of integrating ICT into education and it argues that entrepreneurship programmes may be more effective when combined with other measures (Kluve et al., 2016).

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Annex 1. Additional figures

Figure A1. What is your relation to the head of the household? (by region)



Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

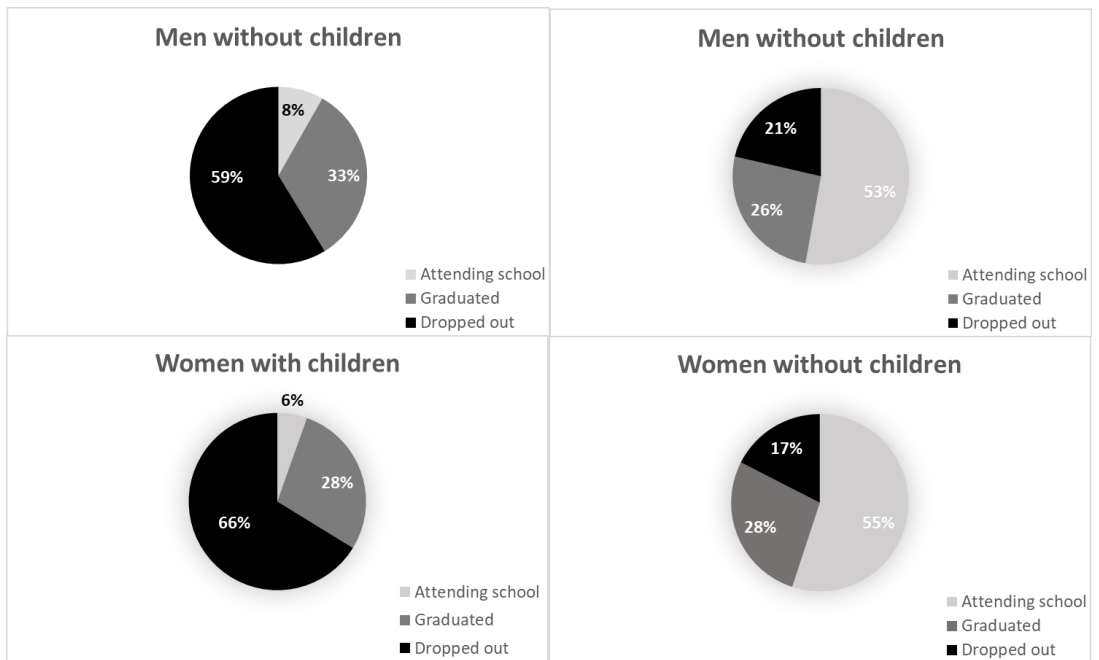
Figure A2. Do you have children? (by region)



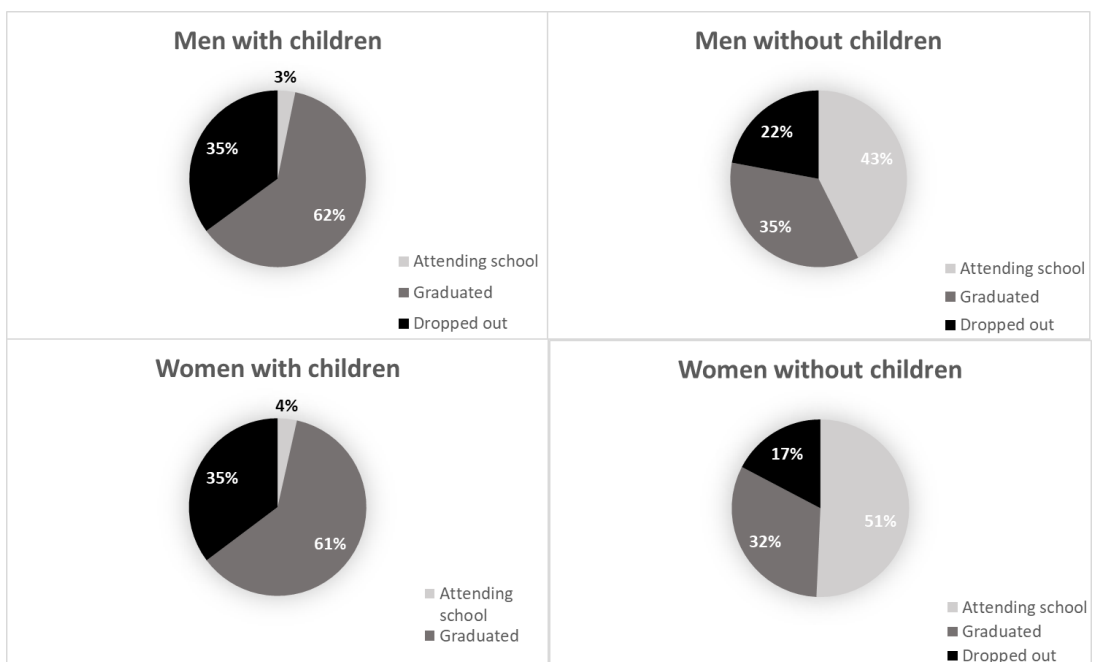
Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS)

Figure A3. Early school departure rates by parental status and sex (by income level)

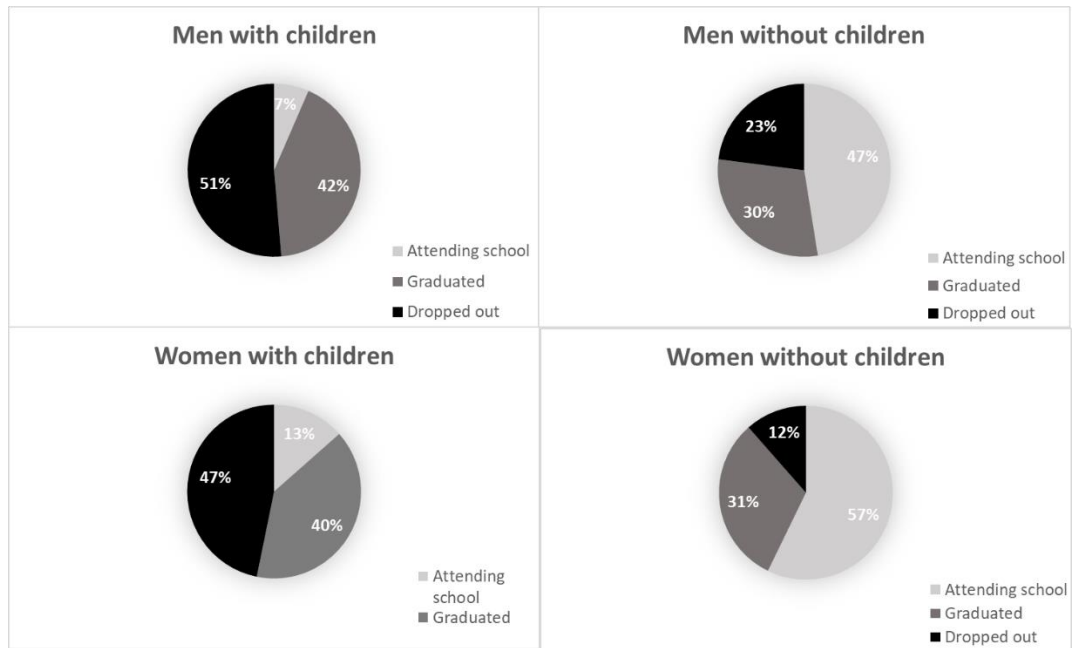
Low-income countries



Lower middle-income countries

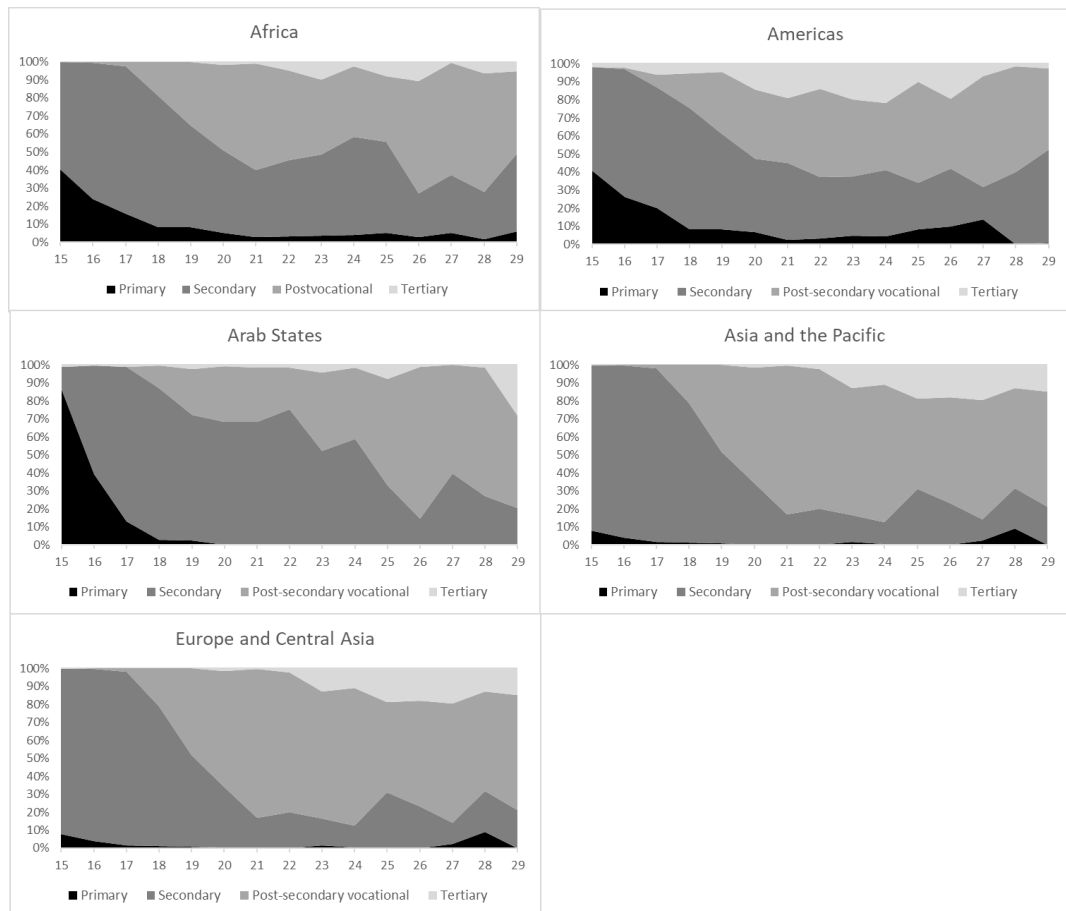


Upper middle-income countries



Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Figure A4. Level of the education for those that are currently studying (by region)



Source: Calculation based on ILO school-to-work transition surveys (the latter year is used in countries with two rounds of the SWTS).

Annex II. Meta-information on the ILO school-to-work transition surveys

Country	Implementation partner	Sample size (15-29 years old)	Geographic coverage	Reference period
Armenia 2012	National Statistical Service	3,216	National	Oct-Nov
Armenia 2014		2,710		Sep -Oct
Bangladesh 2013	Bureau of Statistics	9,197	National	Jan-Mar
Benin 2012	Institut National de la Statistique et de l'Analyse Economique	6,917	National	Dec
Benin 2014-2015		4,306		Dec 2014-Jan 2015
Brazil 2013	ECO Assessoria em Pesquisas	3,288	National	Jun
Cambodia 2012	National Institute of Statistics	3,552	10 provinces	Jul-Aug
Cambodia 2014		3,396	National	Jul-Aug
Colombia 2013	Departamento Administrativo Nacional de Estadística	6,416	Urban	Sep-Nov
Congo, Rep. of 2015	Direction Générale de la Formation Qualifiante et de l'Emploi	3,276	National	May-Jun
Dominican Republic 2015	Banco Central De La República Dominicana	3,554	National	Jul-Sep
Egypt 2012	Central Agency for Public Mobilization and Statistics (CAPMAS)	5,198	National	Nov-Dec
Egypt 2014		5,758		Nov-Dec
El Salvador 2012	Dirección General de Estadística y Censos	3,451	National	Nov-Dec
El Salvador 2014		3,604		Oct-Dec
FYR Macedonia 2012	State Statistical Office	2,544	National	Jul-Sep
FYR Macedonia 2014		2,474		Jul-Oct
Jamaica 2013	Statistical Institute of Jamaica	2,584	National	Feb-Apr
Jamaica 2015		3,666		Jun-Sep
Jordan 2013	Department of Statistics	5,405	National	Dec 2012-Jan 2013
Jordan 2015		3,749		Mar-Apr
Kyrgyzstan 2013	National Statistical Commission	3,930	National	Jul-Sep
Lebanon 2014-2015	Consultation and Research Institute	2,627	National	Nov-Jan
Liberia 2012	Liberian Institute of Statistics and Geo-Information Services	1,876**	National	Jul-Aug
Liberia 2014		2,416*		Jun-Jul
Madagascar 2013	Institut National de la Statistique	3,102	National	May-Jun
Madagascar 2015		5,044		Apr-May
Malawi 2012	National Statistics Office	3,102	National	Aug-Sep
Malawi 2014		3,097		Sep
Moldova, Republic 2013*	National Bureau of Statistics	1,158	National	Jan-Mar
Moldova, Republic 2015		1,189		Mar
Montenegro 2015	Statistical Office of Montenegro	2,998	National	Sep-Oct
Nepal 2013	Center for Economic Development and Administration	3,584	National	Apr-May

Country	Implementation partner	Sample size (15-29 years old)	Geographic coverage	Reference period
Occupied Palestinian Territories 2013	Central Bureau of Statistics	4,320	National	Aug-Sep
Occupied Palestinian Territories 2015		4,141		Jun-Jul
Peru 2012-2013	Instituto Nacional de Estadística e Informática	2,464	Urban	Dec-Feb
Russian Federation 2012	Russian Federal State Statistics Service	3,890	11 regions	Jul
Russian Federation 2015		3,415		Mar
Samoa 2012	Bureau of Statistics	2,914	National	Nov-Dec
Serbia 2015	Statistical Office of the Republic of Serbia	3,508	National	Mar-Apr
Sierra Leone 2015	Statistics Sierra Leone	2,707	National	Oct
Tanzania 2013	University of Dar-es-Salaam, Department of Statistics	1,988	National	Feb-Mar
Togo 2012	Direction Générale de la Statistique et de la Comptabilité Nationale	2,033	National	Jul-Aug
Togo 2014		2,708		Mar-Apr
Tunisia 2013	Institut National de la Statistique	3,000	National	Feb-Mar
Uganda 2013	Bureau of Statistics	3,811	National	Feb-Apr
Uganda 2015		3,049		Jan-Apr
Ukraine 2013	Ukrainian Center for Social Reforms	3,526	National	Feb
Ukraine 2015		3,202		Apr-May
Viet Nam 2012-2013	General Statistics Office	2,722	National	Dec-Jan
Viet Nam 2015		2,234		May-Jun
Zambia 2012	IPSOS Zambia	3,206	National	Dec
Zambia 2014		3,296		Oct-Dec

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