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### Moroccan youth and employment: gender differences

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#### **ABSTRACT**

For young people in the southern Mediterranean, labour market entry is long and difficult. Empirical tests carried out in one Moroccan region show that informal employment largely predominates among young people. Even if a qualification does not protect them from unemployment, it is necessary for access to formal jobs. Experience in the labour market helps as well. Two major divisions emerge according to the length of studies and gender. The least educated have few occupational choices; when they have no experience, they are essentially relegated into jobs which are neither paid nor protected by labour legislation. For young women, the first obstacle to be overcome concerns entry into the labour force, which is strongly dependent on their local environment and family context but also their own aspirations. Acknowledging career success as a long-term objective encourages them to participate more frequently in the labour force. Once this is the case, however, they are considerably more vulnerable to unemployment. This study also permits a comparative review of concepts such as unemployment and NEET.

Abbreviations: OCEMO: Office de coopération économique pour la Méditerranée et l'Orient; INETOP: Institut national d'étude du travail et d'orientation professionnelle

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Morocco: school-to-work transition; gender; NEET; youth unemployment

#### 1. The youth labour market in the southern Mediterranean: an analytical framework

For a large segment of young people in the southern Mediterranean, as is the case to varying degrees in all countries, labour market entry is not easy. Such difficulties have been analysed in detail for the developed countries, especially since the 1990s. The transition process takes specific forms from one group of countries to another depending on the articulation between education and training systems and employment systems but common trends emerge nonetheless. Given that some of the difficulties encountered by young people who are recent labour market entrants in these developed countries, especially on the northern rim of the Mediterranean, are also observed in the countries of the southern Mediterranean, it is useful to recall the findings of studies dealing with Europe and the developed countries (1.1). At the same time, however, the school-to-work transition assumes specific forms in the southern Mediterranean, if only because of their demographic evolution and the considerable place occupied by informal employment (1.2, 1.3). We thus adapt an analytical framework used in the European context to address the economic activity of young people in the southern Mediterranean countries (2). We focus on the impact of three factors: gender, educational attainment and labour market entry status (beginner or not). We conclude with a presentation of empirical findings concerning the Marrakesh-Tensift-El Haouz (MTH) region of Morocco (3, 4).





#### 1.1. The developed countries: the 'halo' around unemployment

In the developed countries, the problems of youth labour market entry were aggravated in the 1990s and more recently during the 'great recession' (Blanchflower and Freeman 2000; Bell and Blanchflower 2015). This has been the case in spite of a number of favourable trends: the decreasing volume of the cohorts of labour market entrants increased educational participation and the growth of service activities (which are the traditional employers of new entrants). According to empirical research conducted by these authors, moreover, the initial difficulties leave a lasting mark on the young person's future situation (unemployment dependency). Ryan (2001), meanwhile, indicates in his comparative overview of the school-to-work transition in the developed countries that if the unemployment rate is the most readily available indicator of youth employment problems, it only provides a partial description. In the case of young people, the dividing line between unemployment and inactivity is less clear than for adults and there is a great deal of movement back and forth. Training courses, work-linked training, work in parallel to studies and active employment assistance measures for young jobseekers (see Piopiunik and Ryan 2012 for a review of the evaluation of employment assistance schemes in Europe), whether these entail subsidised jobs, vocational training or national civic service activities, all lie somewhere between employment, unemployment and inactivity. In addition, the institutional context and rules of unemployment compensation within a given country influence the positioning of the young people within one category or another. In France, for example, the existence of youth employment schemes since the end of the three Golden Decades ('Trente Glorieuses') has served to keep young people with difficulties, including early school-leavers, in contact with work (Werquin 1997).

On the basis of these findings, Ryan (2001), thus, opts to compare the situation of young people from different developed countries in terms of non-employment rather than unemployment.<sup>2</sup> The concept of non-employment or joblessness is not new; it was introduced in the USA by Rees (1986) in his work on young African-American school-leavers. In France during that same period, the fringes of unemployment were being analysed by, among others, Cézard (1986), who identified what he calls the 'halo' of unemployment – jobless persons whose search for employment is non-existent or indecisive (those who are discouraged), unemployed job-seekers who are not available in the coming two weeks (including students and trainees). This borderline population, situated between the unemployed and those who are classified as inactive according to the International Labour Office (ILO) definition, is far from marginal and has in fact increased overtime. In France, in the first quarter of 2015, the 'halo' around unemployment concerned 1.5 million inactive persons aged 15–64 years compared with 2.5 million unemployed (as defined by the ILO).<sup>3</sup>

Studying the school-to-work transition calls for distinguishing between young people still in education and training and other inactive populations. This is the case with the NEET classification (Not in Employment, Education or Training) often used in international comparisons. Quintini, Martin, and Martin (2007) rely on this measure of joblessness as an indicator of the vulnerability of young people entering the labour market. It is also used to define EU policy objectives.

Even in the developed countries, however, the NEET concept remains subject to debate. Furlong (2006) has criticised its use for defining the goals of European employment policies. In support of his position, he stresses the heterogeneity of the NEET population, which is also noted by Coles et al. (2010). Depending on the particular groups it encompasses, this heterogeneity calls for a variety of actions: programmes adapted to young people stuck in long-term unemployment, young people inactive for family reasons and handicapped young people are not the same. In addition, it is difficult to use the NEET category in international comparisons (Mascherini et al. 2012) because distinctions between the unemployed in the narrow sense, the 'halo' around unemployment and those who do not wish to work differ from one country to another.

Within the developed countries, and even within Europe, the forms of school-to-work transition remain highly differentiated. This is the case in spite of common trends affecting the education and employment systems, and even if new entrants everywhere are more vulnerable to unemployment than adults,

especially when the economic situation is poor.<sup>4</sup> Within the older EU-15 members, three main groups of countries may be identified (Müller and Gangl 2003: Raffe 2008). If new entrants are more exposed to the risk of unemployment than experienced adults in all countries, the magnitude of the difference is quite variable. Labour market entry systems are thus very different for young people living in countries with dominant occupational markets (e.g. Germany and Denmark), countries of the northern rim of the Mediterranean and the other European countries. Youth labour market entry is relatively easier in the first group of countries. In the northern Mediterranean, by contrast, young people are particularly disadvantaged in access to jobs relative to adults; family solidarities, therefore, act as a buffer for those in precarious situations by permitting them to leave home at a later age (lannelli and Soro-Bonmati 2003; for Spain and Italy; Bell and Blanchflower 2015; already cited, for Greece, where young people are particularly at risk). Young women, meanwhile, are doubly penalised in the labour market, by their age and their gender.

# 1.2. In the southern Mediterranean countries: a longer, more complicated transition to adulthood

The countries of the southern and eastern Mediterranean have invested heavily in education. (In Morocco and Tunisia, for example, public expenditures on education in 2012 reached 6.2% of the GDP, which is more than one point higher than the worldwide average of 5%).<sup>5</sup> They have also developed public programmes to promote youth employment (Kocoglu 2014). In spite of these efforts, however, the labour market entry and social integration of a portion of the young people in this area remain a real problem. In addition, the second phase of the demographic transition – where mortality has already decreased and the birthrate is slowly declining – is coming to an end there. The cohorts of young people now entering the labour market thus correspond to the largest generations (Kateb 2010). The difficulties young people face in gaining access to employment, which are already considerable in the northern rim of the Mediterranean, are even harsher on the eastern and southern shores (Galal and Reiffers 2011).

The relative position of young people in the labour markets of developing countries is quite specific (ILO 2013). Given the limited organisation of these markets, the dearth of unemployment compensation and the very limited coverage of the public employment services, the ILO proposes the use of a 'relaxed' or 'broad' definition of youth unemployment and labour force participation which does not require the active search for employment in the preceding month as is the case with the strict definition usually employed.

Among inactive young people, the ILO distinguishes between those in education and those who are not (with labour force participation taken in the broad sense, including discouraged jobseekers who are no longer actively looking for employment).

In the southern Mediterranean countries, female labour force participation is quite low, even when it is measured in the broad sense (ILO 2013). Household activities and caring for children and dependent persons are almost exclusively reserved for women and the time these occupy in women's schedules is nearly equivalent to the work-related time of their male counterparts. Indeed, according to Morocco's time-use survey for 2011–2012, 95% of Moroccan women devote an average of 5 h a day to domestic activities, while 45% of the men help out for an average of 45 min a day. By contrast, work activities occupy the men for an average of 5 h and 25 min a day and women, 1 h and 21 min (Lalhimi 2014).

The choice of non-participation in the labour force is not always voluntary for young women in the MENA area. In fact, they have access to few services – childcare arrangements, for example – allowing them to reconcile professional and family life; even in the civil service, family life encroaches on their professional life, although this is not the case for men (ONU-femme and GIZ 2011). At the same time, pressure from their family and friends may dissuade them from entering professional life, as shown by the 2013 OCEMO survey on young people's expectations in the MTH region of Morocco, which serves as the basis for the present article (see Annex 1).<sup>6</sup> For young men, on the other hand, non-participation (in the broad sense of labour force participation, excluding discouraged jobseekers) is quite rare

(Mansuy, Icard, and Munoz 2014). This implies that labour force status, as well as the factors determining it, differs considerably according to gender. The disparities in the participation rates of young men and women entering the labour market call into question the interpretation of the NEET concept for developing countries (Quintini and Martin 2014).

Two other distinctive features should also be noted. The first is the considerable weight of informal employment (providing no social protection and identified by the ILO as a measure of poor job quality (Elder 2015)), which concerns young people above all (Shehu and Nilsson 2014). The second is the importance of self-employment.

The fact is that the informal economy occupies an important place in the developing countries, and the MENA region in particular. In the Moroccan case, 80% of individuals in employment in 2013 did not benefit from health coverage and thus had an informal job. Young people are even more concerned: 89% of the young Moroccans aged 15–29 in employment held an informal job (HCP 2013).

Unpaid employment, meanwhile, occupies an important place in the labour markets of middle-and low-income countries (Cho et al. 2012); this is especially true for the group of middle-income countries undergoing rapid growth and structural changes which, as identified by the authors, includes Morocco. In the case of the MTH region studied, the importance of agriculture in the local economy strengthens the weight of the non-salaried labour force (32.4% of those with employment in the MTH region are self employed and 27.6% are unpaid family workers (HCP 2013). It is important to distinguish between two forms of non-salaried activity among young people: unpaid family workers (see 1.3 below) and those who are self-employed or company heads (Werquin 2014). Self-employment is also a potential public policy target: in a tight demographic context, support for youth entrepreneurship is one of the levers for access to employment (World Bank 2012).

In the case of the MTH region, our survey shows that unpaid family workers and other non-salaried individuals have considerably different profiles: 45% of the former have never attended school, compared with 15% of the self-employed and 17% of salaried employees; 3% of the unpaid family workers have attained high-school level or beyond, whereas this is the case for 27% of salaried employees and 22% of the self-employed. The characteristics of the other non-salaried individuals, nearly all of whom are self-employed, are closer to those of the salaried employees than those of unpaid family workers. The size of the survey sample does not allow employers to be isolated from other self-employed persons, or to identify the subgroup of those who have successfully developed their self-employed activity.

In their report on the school-to-work transition of young people in the MENA area, Rosso, Bardak, and Zelloth (2012, commissioned by the European Training Foundation) single out the following factors which make youth labour market entry particularly difficult there:

- The weak business environment failing to encourage SMEs and self-employment;
- The large number of young people with low education attainment (which is particularly the
  case in Morocco, where the education level attained is below that of the other countries in
  the MENA area, even for recent generations (Kocoglu 2014));
- The insufficient development of vocational and technical education and training;
- The mismatch between students' programme choices and potential employers' needs;
- The inadequate development of key competences;
- The absence of transparency about available job offers and the limited coverage of the public employment service (in Morocco, the Anapec concentrates its support on young graduates);
- The lack of relevant work experience paralleling studies; and
- The sharp territorial disparities and weak geographical mobility within the country.



#### 1.3. Labour force status: concepts and definitions adapted to the regional context

For the purposes of our article, we only consider young women and men who are no longer in school. To characterise their labour force status, we have opted for an enlarged definition of unemployment and integrated factors describing the quality of the jobs held.

Given the particular characteristics of MENA labour markets (see Mansuy and Werquin 2015, for the Tunisian case), and especially the weak organisation described in the preceding section, the standard ILO definition of unemployment is not appropriate. We have, therefore, chosen to use the broad definition proposed by the ILO: individuals without employment, seeking a job and available to work (i.e. the active job search is no longer a condition). Conversely, job-seekers not actively seeking work are included among the labour force participants in the broad sense. For the Moroccan case, these definitions are more relevant.

The vast majority of the jobs held by young Moroccans are informal and offer no health insurance. Among the non-salaried activities, unpaid family work constitutes a special category and is identified separately here. These jobs without formal status, rooted in rural and especially agricultural areas, differ from both salaried activities and those of other self-employed workers.

The family context of unpaid family work differs according to gender. Almost all the young men help their fathers and they are generally unmarried. This is also the case for half of the young women; however, another 41% of them are married and help their husbands or in-laws. In this case, work activities of family life are closely intertwined. The family workers of both genders have little schooling: 81% do not have a primary school certificate, compared with 43% of those holding a non-family job.

We thus propose the following breakdown into six basic categories for analysing the economic activity of young people in Morocco:

- Formal paid employment;
- Informal paid employment;
- Self-employment (own-account worker or employer);
- Unpaid family worker;
- Unemployed in the broad sense; and
- Inactive non-students (excluding discouraged jobseekers).

This study assumes that job entry is a dynamic process which deserves to be described as such. Young people with little educational capital have much longer experience than their counterparts of the same age who have pursued higher education. The model proposed here attempts to separate the impact of education on labour force status from that of being a new labour market entrant (or not).

According to Lindbeck and Snower (1988), incumbent employees in existing companies, whom they term *insiders* (predominantly adult males) hold positions protected by labour turnover costs relative to *outsiders* holding precarious jobs or seeking employment. In a subsequent article, they explain the vision underlying their theory and assess its empirical applications. The outsiders group, which does not benefit from this protection, 'consists of new entrants to the labour market, young, married women, and perhaps also, elderly workers'. They are more frequently subject to unemployment than the insiders and these spells are longer (Lindbeck and Snower 2002, 35). In their view, this theory applies everywhere and not only in Europe, and some of its mechanisms are reinforced when social norms are favourable to the insiders.

For this reason, we propose to consider the length of time elapsed since the end of education and training as a measure of experience already acquired, as is the case in Europe (Müller and Gangl 2003; Couppié and Mansuy 2003, 2004), with the aim of determining whether (and how) the acquisition of an initial experience, with equivalent educational capital, changes the quality of young Moroccans' labour force entry.<sup>8</sup> In practice, new entrants (with a maximum of five years' experience) will be distinguished from other young people with 6 years' experience or more.



#### 2. Methodology

The empirical test in the MTH region is based on a relatively small sample (1,062 young people who have ended their studies). The dependent variable follows the six categories of labour force participation described above.

Given the very sharp disparity in the labour market behaviours of young men and women when discouraged jobseekers are excluded (a high inactivity rate for the women, practically no inactivity – less than 1% – for the men), it is difficult to characterise the young people's labour force status with a single instantaneous model.

We first tested separate models by gender but the size of the sample was insufficient. We then attempted mixed male–female models but the results are difficult to interpret. In practice, because of the extremely low inactivity rate among the young men, unemployment and inactivity have to be grouped together. This amounts to making the improbable assumption that these determinants are identical, which is scarcely compatible with the studies cited in section 1.2. Another disadvantage of this method is that it does not address young women's unemployment.

To resolve these difficulties, we have thus proceeded in two distinct phases:

- Phase 1: identification of the determinants of young women's inactivity; and
- Phase 2: identification of the labour force status for all the economically active young people, both male and female.

#### 2.1. Identifying young women's inactivity and its determinants

The inactivity rate is high among young women, including those who are unmarried. Some of them who have completed their studies do not seek to enter the labour market because of social norms, even before they start a family (see 1.2. above). We thus use a simple binary model (Logit) to estimate inactivity. The potential determinants tested are: the education levels of the young woman and her parents (cultural markers), family income, the young woman's rank among her siblings, geographical location, the fact of recently completing her studies or not, her stated personal ambitions.<sup>9</sup>

#### 2.2. Identifying the determinants of labour force status for young men and women

To estimate the probabilities of the five categories of labour force status (self-employment, informal paid employment, unpaid family work, unemployment in the broad sense), we then use a polytomic Logit model (Greene 2012).

The potential determinants selected are the number of years of schooling,<sup>10</sup> the fact of being a new entrant or not (5 years' labour market experience or less), gender, parents' education (at least primary level for father, at least primary education or literacy classes for mother), the number of siblings and the rank of the respondent, whether or not the father is self-employed, the household's overall earned income,<sup>11</sup> geographical location, the young person's level of social relations with political, business or religious leaders (Annex 3), the young person's plans for the future, centred on the desire to start and raise a family or mainly career-centred.

The possible educational endogeneity has been taken into account. Here too, the size of the sample does not allow us to obtain convergent results with quasi-likelihood approaches. We, therefore, use the two-stage residual inclusion (2SRI) procedure, where the first stage is the instrumental equation and the second adds the residuals of the instrumental equation to the other determinants of the variable under examination. In this case, the procedure consists of estimating education – the presumed endogenous variable – by an instrumental equation (stage 1) and then adding the residuals of the latter into the estimation of the multinomial logit

determining labour force status (stage 2). Hausman (1978) introduces this method in the linear model as an easy means of testing endogeneity. However, according to Terza, Basu, and Rathouz (2008), this procedure gives satisfactory results in the nonlinear model as well, contrary to the so-called 2SPS procedure that consists of including the estimated value of the endogenous variable from stage 1 to stage 2. For Wooldridge (2014), the 2SRI procedure is an acceptable approximation.

#### 3. Empirical data and initial results: young Moroccans and employment

#### 3.1. Sharp contrasts by gender and place of residence

The professional activity of the young people queried brings out two kinds of divides: severe inequalities across the territory (Galal and Reiffers 2013) but also gender inequalities. In the areas of education and access to basic skills, the geographical inequalities take precedence, even if these are combined with gender inequalities. In terms of employment and labour force status, the divide is greatest between males and females (albeit slightly less in urban areas), which means that it is unrealistic to suppose that the respective forms of economic activity and their determinants can be totally shared (Table 1).

As indicated above, for a young man, inactivity (in the broad sense, including discouraged jobseekers) after the end of studies is quite rare, while it is a very frequent situation for young women, even when they are unmarried. Slightly more than 32% of the young women are inactive for family reasons, but nearly 22% state that they are not even seeking employment because their father or husband dissuades them from doing so, whereas no young man is found in this situation. Unpaid family work is the main form of employment for the young women but in the city, this is rarely the case (and not at all among those queried here), while it is almost the only job situation of young rural women (see Annex A2).

#### 3.2. Female inactivity closely tied to family setting and geographical location

The female inactivity model (Table 2) yields the following empirical findings:

- Education does not influence the probability of being inactive; the same is true for the fact of being a new entrant or not, the number of siblings or the young woman's rank among them;
- The father's education or the fact that he is self-employed does not influence the probability of inactivity either;
- By contrast, the place of residence (Annex 3) has a sharp influence. All other things being
  equal, young women living in remote rural areas are least inclined towards inactivity, given
  that they often help their fathers or husbands with farming;
- Having a mother who has attended primary school or taken literacy classes reduces the probability of the young women's inactivity. In other words, the classic finding of the preponderant influence of the mother's education reappears here as well (Schultz 2002).

Table 1. Labour force status of young people in the MTH region (in %).

Labour Force Status	Male	Female	Total		
Self-employed	17.7	3.5	9.9		
Informal paid employees	37.0	5.0	19.4		
Formal paid employees	7.1	1.8	4.2		
Unpaid family workers	24.4	26.9	25.8		
Unemployed	13.0	8.6	10.6		
Inactive (family reasons)	0.7	32.3	18.1		
Inactive (imposed)	0.0	21.6	11.9		
Total number of respondents	478	584	1,062		

Source: OCEMO survey, 2013, processed by the authors. Field: Young people aged 15–34, no longer in school.

Table 2. Inactivity of Young Women in the MTH Region.

	Coefficient			
Years of schooling	-0.03	ns		
New entrant status	-0.23	ns		
Family				
Father self-employed	-0.30	ns		
Family income (1000s of DHM)	0.19	***		
Rank among siblings	-0.05	ns		
Number of siblings	-0.03	ns		
Parents' education				
Father-primary education	0.45	ns		
Mother-literate or primary education	-1.39	***		
Dwelling				
Nearby rural area	-0.97	***		
Remote rural area	-1.44	***		
Average or privileged urban area	-0.94	**		
Disadvantaged urban area	Reference			
Family-centred ambitions	0.87	***		
Relations with leaders	-0.09	ns		
Constant	0.77	ns		

Binary logit model, 592 observations, log-likelihood = -376

\*\*\*: coefficient significant at 1%; \*\*: coefficient significant at 5%.

Source: OCEMO 2013 survey, processed by the authors. Field: Young women aged 15-34, no longer in school.

Table 3. Labour force status of young people in the MTH region.

Sel	f-	Forma	l paid	Unpaid	family		
emplo	yed	employ	ment	worl	ker	Unemp	loyed
oefficient	Coef	ficient	Coeff	icient	Coeffi	cient	
0.10		0.70	***	-0.99	***	0.07	
-0.04		-0.32	**	0.95	***	-0.10	
-1.55	***	-2.49	***	3.80	***	-0.29	
0.75	**	-0.45		0.34		-0.36	
0.23		0.01		0.86	***	0.43	***
-0.17		-0.22		0.06		-0.05	
0.14		0.40	**	-0.14		-0.02	
0.18		0.07		-0.33		-0.32	
0.62		1.40	**	-0.40		1.45	***
man 0.59		-0.65		1.85	***	0.55	
0.24		-0.03		0.13		0.06	
-2.62	***	-8.91	***	3.49	***	-1.77	**
	Sel emplo oefficient	Self- employed  oefficient Coef	Self-employed         Formal employed           oefficient         Coefficient           0.10         0.70           -0.04         -0.32           -1.55         ***         -2.49           0.75         **         -0.45           0.23         0.01           -0.17         -0.22           0.14         0.40           0.18         0.07           0.62         1.40           man         0.59         -0.65           0.24         -0.03	Self-employed         Formal paid employment           oefficient         Coefficient         Coefficient           0.10         0.70         ***           -0.04         -0.32         **           -1.55         ***         -2.49         ***           0.75         **         -0.45         0.01           -0.17         -0.22         0.14         0.40         **           0.18         0.07         0.62         1.40         **           man         0.59         -0.65         0.24         -0.03	Self-employed         Formal paid employment         Unpaid work           oefficient         Coefficient         Coefficient           0.10         0.70         ***         -0.99           -0.04         -0.32         **         0.95           -1.55         ***         -2.49         ***         3.80           0.75         **         -0.45         0.34           0.23         0.01         0.86           -0.17         -0.22         0.06           0.14         0.40         **         -0.14           0.18         0.07         -0.33           0.62         1.40         **         -0.40           man         0.59         -0.65         1.85           0.24         -0.03         0.13	Self-employed         Formal paid employment         Unpaid family worker           oefficient         Coefficient         Coefficient           0.10         0.70         ***         -0.99         ***           -0.04         -0.32         **         0.95         ***           -1.55         ***         -2.49         ***         3.80         ***           0.75         **         -0.45         0.34         ***           0.23         0.01         0.86         ***           -0.17         -0.22         0.06         0.06           0.14         0.40         **         -0.14           0.18         0.07         -0.33           0.62         1.40         **         -0.40           man         0.59         -0.65         1.85         ***           0.24         -0.03         0.13         ***	Self-employed         Formal paid employment         Unpaid family worker         Unempower           oefficient         Coefficient         Coefficient         Coefficient           0.10         0.70         ***         -0.99         ***         0.07           -0.04         -0.32         **         0.95         ***         -0.10           -1.55         ***         -2.49         ***         3.80         ***         -0.29           0.75         **         -0.45         0.34         -0.36         0.43           0.23         0.01         0.86         ***         0.43           -0.17         -0.22         0.06         -0.05           0.14         0.40         **         -0.14         -0.02           0.18         0.07         -0.33         -0.32           0.62         1.40         **         -0.40         1.45           man         0.59         -0.65         1.85         ***         0.55           0.24         -0.03         0.13         0.06

Reference category for the labour force status: having an informal paid job.

Likelihood  $\log = -712$ 

Source: OCEMO 2013 survey, processed by the authors

Field: Young labour force participants aged 15–34, no longer in school

- Family income contributes to increasing inactivity and this is even more the case for young women whose personal ambitions are focused on starting and raising a family rather than pursuing a professional career or earning money.

#### 3.3. Labour force status: complex determinants for young men and women alike

The empirical test on the status of the young labour force participants includes 730 young men and women no longer in school (Table 3). The hypothesis that the unobserved characteristics influencing their education level also influence their labour force status is tested through a twostage procedure: an instrumental equation to estimate the number of years of education, followed by a multinomial logit model including a correction for educational endogeneity. Because of the sample size, direct maximum likelihood estimates are not convergent.

The instrumental variables selected are: the four places of residence (remote rural, nearby rural, average/privileged urban, with disadvantaged urban as the reference category) and the two parents' educational attainment (primary level or above for the father, primary level or above, or literacy, for the mother).

The mother's education has an independent favourable effect on the length of the young peoples' studies but it is of limited scope and barely significant (at 10%). The father's education also has a favourable effect which is more pronounced than that of the mother and significant at 1%.

Relative to a residence in a disadvantaged urban area (reference category), the fact of living in an average/privileged urban area is favourable to longer studies and is significant at 3%, while the rural location variables are significant at 1% and have an independent negative effect on the length of studies.

In the second stage, the education variable and the residual of the instrumental equation are introduced among the determinants of labour force status (2SRI method, see above). The standard deviations are estimated for the two stages by bootstrapping to limit the bias tied to the effect of two-stage estimates. The reference category is informal paid employment.

The hypothesis that a family-centred goal has a different impact on the labour force status of the young men and women is tested by the introduction of a crossed variable (equal to 1 if the young woman has such an ambition and 0 otherwise). This specification permits the effect of the goal to be tested separately for males and females.

The hypothesis of educational endogeneity is accepted because two of the coefficients of the residuals of the instrumental education are significantly non-zero.

- Education (duration of schooling) favours formal rather than informal paid employment. A
  longer period of studies reduces the probability of being an unpaid family worker rather than
  an informal paid employee and has no effect on the relative probability of being selfemployed or unemployed.
- The fact of not yet having 5 years' experience decreases the relative probability of being selfemployed or a formal paid employee and increases that of being an unpaid family worker.
- If the father is self-employed, the relative probability that the young person will be self-employed as well is strengthened. All other things being equal, having a father who is self-employed favours the fact of being a self-employed worker or an unpaid family worker, to the detriment of formal paid employment and unemployment.
- Young women have relatively greater probabilities of being unemployed or holding a formal paid job.
- The fact of having future plans mainly centred on the family has no influence on relative probabilities concerning the young men but strengthens the relative probability of being an unpaid family worker for the young women.
- The intensity of exchanges with business, political or religious leaders has no specific effect on the relative probabilities studied; the same is true for the young person's rank among the siblings.

The fact that the results of the model are expressed relative to a reference category (being in informal paid employment) means that their interpretation is complex. For this reason, the following section presents the probabilities predicted by the model for different likely profiles of young women and men.

#### 4. Results of the models: illustration by typical cases

The model chosen, which bears on relative probabilities in relation to the reference category of paid informal employment (i.e. without job-related health coverage), does not allow a direct reading of the differences in activity status by education level, gender, the fact of being a labour market entrant or not, the nature of future plans (mainly family-centred or career-centred). The average marginal effects, often employed to illustrate the effect of the explanatory variables, have



not been used here because they do not permit the interaction variables to be taken into account. Rather, we have selected contrasting typical cases.

#### 4.1. Phase 1 results: inactivity among young rural and urban women

The greatest labour force participation is found among young women living in average or privileged urban settings, and having future plans which are not family-centred, especially if the mother has attended primary school or literacy classes.

Young women from disadvantaged urban social environments are the least active and this finding is consistent with the observation that they are the least likely to seek work because, they indicate, their fathers or husbands are opposed.

Young women in remote rural areas often participate in the labour force but almost always as unpaid family workers assisting their self-employed fathers or husbands and this brings them no financial autonomy (Table 4).

## 4.2. Phase 2 results: employment status of young labour force participants, males and females

Here, 40 typical cases were chosen to illustrate these results. The first 16 correspond to common situations in rural areas: the father is not self-employed; the young person has no exchanges with political, business or religious leaders; the family's earned income without the young person's contribution is 1,000 MAD (the observed median in rural areas) and he or she is the third of six children. The 16 cases vary with regard to gender, level of studies (0 or 7 years, the modal values in rural areas), the fact of being a new entrant or not and the fact of having family-centred plans or not.

The next 16 typical cases correspond to plausible situations in urban areas: the father is not self-employed; the young person has relations with one category among the political, business or religious leaders; the household's earned income without the young person's contribution is 2,500 MAD (the observed median in urban areas) and he or she is the second of three children. These 16 cases vary with regard to gender, the fact of being a new entrant or not, the number of years of

Table 4. Probability of inactivity for young women.

Place of residence	Future plans	Family income without young per- son's contribution	Mother with primary schooling or literacy classes	Probability of inactivity
Remote rural	Family	1,500	no	35.3%
Remote rural	Other	1,500	no	25.8%
Nearby rural	Family	1,500	no	56.9%
Nearby rural	Other	1,500	no	45.6%
Disadvantaged urban	Family	2,500	no	78.6%
Disadvantaged urban	Other	2,500	no	60.3%
Privileged urban	Family	2,500	no	60.6%
Privileged urban	Other	2,500	no	38.9%
Privileged urban	Family	2,500	yes	30.0%
Privileged urban	Other	2,500	yes	15.1%
Privileged urban	Other	5,250	yes	23.1%
Privileged urban	Other	5,250	no	51.8%

Source: OCEMO 2013 survey, processed by the authors. Field: Young women aged 15–34, no longer in school.

education (10 and 13, the modal values observed in the survey in urban areas) and the fact of having family-centred ambitions or not.

The eight remaining typical cases concern young people in privileged urban settings: the household income without the young person's contribution is set at 5,250 MAD (the eighth decile observed for the urban population); the education level is higher than average (for two different typical cases: 13 and 17 years of studies); the young person is the second of three children; he or she has relations with one category among the political, business or religious leaders; his or her goals are career-oriented. These eight cases vary with regard to gender, the fact of being a new entrant or not and the level of studies (13 or 17 years).

The following charts show the increasing probabilities of each labour force category according to the 40 typical cases selected.

#### KEY:

The typical cases are identified as follows: P1. P2. P3. P4. P5

where P1 is equal to M for a young man and W for a young woman in the labour force;

**P2** is equal to **B** if the young person is a beginner and **E** if he or she has more than 5 years' experience in the labour market;

**P3** is equal to **fam** if the young person's future plans are family-centred and **oth** if the main objective is different (essentially a successful career);

P4 indicates the young person's educational attainment (number of years of education)

**P5** is blank if the family income without the young person's contribution is lower than 5,250 MAD and + if it is equal to this amount

**NB**: The probabilities presented in Figures 1–5 deal with young people in the labour force. To calculate the probability for a young woman who has completed her studies has formal paid employment, for example, it is necessary to multiply her probability of her labour force participation (obtained by subtracting the Table 4 data on the probability of inactivity from 100%) by the probability that she is in formal employment if she is economically active (as indicated in Figures 1–5).

Self-employment is quite rare for new entrants in the labour market, regardless of their gender and level of studies. The same is true for experienced young people without studies. More surprisingly, experienced young people with a long educational background (Masters level) also have a low probability of being self-employed, in spite of a considerable probability of unemployment. Those most affected by this situation are experienced young people with average levels of study (10 years) and family-centred plans for the future.

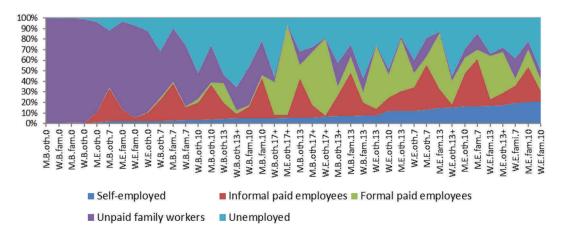


Figure 1. Increasing probability of being self employed.

Source: OCEMO 2013 survey, processed by the authors. Field: Young labour force participants aged 15-34, no longer in school.

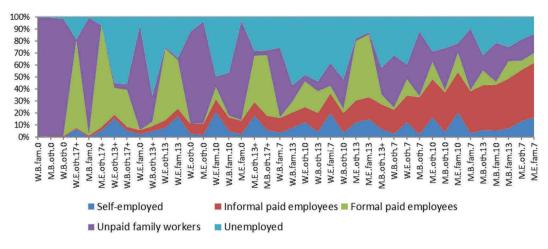


Figure 2. Increasing probability of having informal paid employment.

Source: OCEMO 2013 survey, processed by the authors. Field: Young labour force participants aged 15–34, no longer in school.

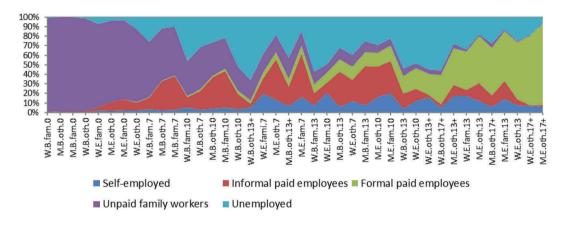


Figure 3. Increasing probability of having formal paid employment.

Source: OCEMO 2013 survey, processed by the authors. Field: Young labour force participants aged 15–34, no longer in school.

The typical cases of young people most often concerned by informal employment are uniquely male, whether labour force beginners or not, with an average level of studies (7–10 years). Young women are rarely in this category, and the same is true for those (whether male or female) with no schooling or, conversely, with very lengthy studies.

There is a clear symmetry between unpaid family employment and formal paid employment: the low probabilities of one are the high probabilities of the other. Formal paid work is reserved for those who have pursued long years of study: it is rare for those with less than 10 years of education and frequent for experienced young people with lengthy studies.

Labour market entrants without schooling, whether young men or women, are nearly certain to be unpaid family workers. Even those with experience who lack schooling have a very high probability of being unpaid family workers. For those with the longest studies, this probability is practically zero.

Young women have the highest probability of unemployment, even with a high educational level, and especially when they are new entrants. Few young people without schooling, men and women alike, are unemployed because nearly all of them are unpaid family workers. Experienced

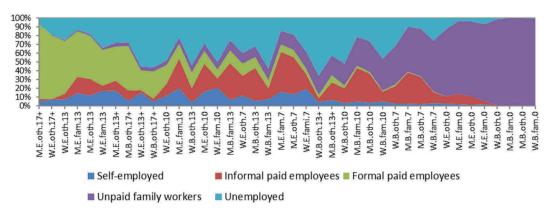


Figure 4. Increasing probability of being an unpaid family worker.

Source: OCEMO 2013 survey, processed by the authors. Field: Young labour force participants aged 15-34, no longer in school.

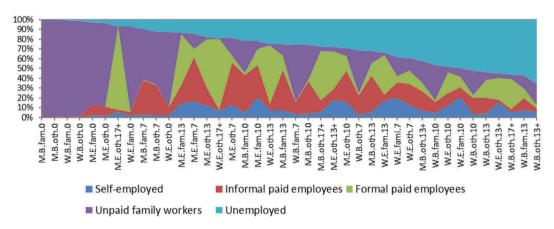


Figure 5. Increasing probability of being unemployed.

Source: OCEMO 2013 survey, processed by the authors. Field: Young labour force participants aged 15-34, no longer in school.

young men with high educational attainments also face little risk of unemployment because they frequently have a formal job.

#### 5. Conclusion

In a vast Moroccan region like Marrakech-Tensift-El Haouz, tertiary education graduates are practically the only young people who gain access to formal jobs respecting labour legislation. These jobs are often obtained after a spell of informal employment or unemployment. The diploma does not offer protection from unemployment, although this is the case in other countries. At the same time, it is absolutely necessary for anyone hoping to move out of precarious employment and gain access to decent paid jobs, especially for women.

On the other hand, the absence of schooling or a low educational level sharply limits opportunities in the labour market. The young people concerned only have access to unpaid or informal jobs (which do not necessarily respect the minimum wage). Experience slightly improves access to informal paid work for young men but young women, whether beginners or experienced, have little access to the same category of work. With low educational attainment, their prospects are even more limited than



those of young men with an equivalent attainment. Working with their fathers, husbands or in-laws without being paid is practically their only opportunity for employment.

#### **Notes**

- 1. Where gender is not specified, the terms 'Moroccan young people' or 'Moroccan youth' refer to males and females alike.
- 2. Full-time students are not included in non-employment.
- 3. See http://www.insee.fr/en/themes/info-rapide.asp?id=14&date=20150604.
- 4. Such common trends include the *massification* of higher education, the existence of public youth employment assistance schemes and a longer transition to adulthood.
- 5. See http://data.uis.unesco.org/.
- 6. According to this survey, 21.6% of the young women no longer in school declared that they were not looking for work because of the opposition of their fathers or spouses, in both rural and urban areas.
- 7. Individuals without employment, seeking a job, available to work, actively seeking work or about to begin the job search.
- 8. For his empirical calculations of job mobility, Johnson (1978) already proposed measuring acquired experience in terms of the amount of time elapsed since leaving school.
- 9. To explain the fact that inactivity often intervenes well before marriage, the choice of family life as a priority for the future is privileged over marital status (unmarried or not).
- 10. The age at the end of studies minus 6, in years.
- 11. After deduction of the young person's possible earned income, to avoid circularity.

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No potential conflict of interest was reported by the authors.

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#### **ANNEXES**

#### Annex 1. The OCEMO survey on young people's expectations (2013)

The questionnaire covers three dimensions: the young people's situations, their family contexts and their opinions and ambitions.

**Situation**: The questions mainly address training/work activity (in order to focus the questionnaire), but also living conditions and social background. Emphasis is placed on informal activities, self-employment experiences and perceived over-qualification. In addition to educational capital, general competences (such as language proficiency, computer and internet skills, involvement in community groups and team sports) are described.

**Family context**: This section includes a description of the household and its members (economic activity, education, age, family ties), housing, income, transfers between the young person and the household.

**Opinions and ambitions**: These are solicited throughout the questionnaire, within the different sections on employment and training, as well as a more general section at the end, so as to contextualise the responses within the young peoples' concrete experiences. The final questions concern the way they envision their careers, how they situate themselves within the society, their expectations with regards to social protection, their future plans, the way they see the country's priorities and so on.

The region chosen for the survey, Marrakesh Tesift Al Haouz (MTH), includes 10% of Morocco's population and is quite diversified, with rural and urban territories, high mountains, valleys and coastline areas. The age group selected (15-34 years) is sufficiently broad to permit the observation of the first jobs of tertiary education graduates and the first self-employed activities.

The sample, representative of the population aged 15 to 34 in the region, was constituted in three phases:

- (1) A sampling of geographical units was drawn up by the Statistics Division of the Moroccan HCP;
- (2) On site, the number of households including young people within the age group was identified and the number of young people concerned in each household recorded; the households to be queried were selected at random from those within the survey field, in proportion to the number of young people within the age group present in each household (in order to guarantee equal probabilities of inclusion for the young people to be queried);
- (3) A random draw was used to select the young person to be queried among those within the survey field present in the household. When one household was drawn a number of times, several young people were selected by random draw among those who were eligible (this was carried out by means of a computer-automated procedure guaranteeing greater accuracy).

The sample includes 1,300 young people. The interviews were carried out face to face, with computer-assisted collection. As many as five visits were sometimes necessary in order to reach the individuals selected but the final response rate was extremely high (94%). The fact that roughly 90% of the young people queried accepted to participate in a future youth survey demonstrates a high degree of involvement on their part.



#### Annex 2. Youth labour force participation in urban and rural areas

Table A1. Labour force status of urban youth (in %).

Labour Force Status	Male	Female	Total
Self-employed	24.3	6.7	15.2
Informal paid employees	34.3	9.6	21.5
Formal paid employees	15.4	5.1	10.1
Unpaid family workers	4.7	0	2.3
Unemployed	21.3	17	19
Inactive – family reasons	0	39.2	20.4
Inactive – imposed	0	21.6	11.2
Total numbers	171	185	357

Source: OCEMO survey, 2013, processed by the authors.

Field: Young people aged 15-34 years, no longer in school.

Table A2. Labour force status of rural youth (in %).

Labour Force Status	Male	Female	Total	
Self-employed	14.1	2	7.3	
Informal paid employees	38.5	2.9	18.4	
Formal paid employees	2.5	0.3	1.2	
Unpaid family workers	35.4	39.4	37.7	
Unemployed	8.4	4.7	6.3	
Inactive – family reasons	1.1	29.1	16.9	
Inactive – imposed	0	21.6	12.2	
Total numbers	306	399	705	

Source: OCEMO survey, 2013, processed by the authors.

Field: Young people aged 15-34 years, no longer in school.

Table A3. Explanatory variables used in the models.

#### Phase 1: Female inactivity

Number of years of education: not significant

Being a beginner (up to five years after end of studies): not significant

Having a father who is self-employed: not significant

Family's monthly earned income without young person's contribution (1,000s MAD): favourable to inactivity

Rank among siblings: not significant Number of siblings: not significant

Father with primary education: not significant

Mother with primary education or literacy classes: unfavourable to inactivity

Nearby rural area: rural residence less than 90 min. from urban centres by car

Remote rural area: rural residence 90 min. or more from urban centres by car

Average or privileged urban area: urban residence, in a neighbourhood which is not socially disadvantaged; relative to disadvantaged urban housing, all the other areas are unfavourable to inactivity

Relations with political, business and religious leaders (0 to 3 according to the existence or not of regular exchanges with each category): not significant

Future plans centred on family (vs other ambitions, mainly career oriented): favourable to inactivity

#### Phase 2: Labour force status

Instruments for estimating the number of years of schooling:

Father with primary schooling

Mother with primary schooling or literacy classes

Nearby rural area

Remote rural area

Average or privileged urban area

Variables used to estimate labour force status:

Number of years of schooling

Residual of the instrumental equation

Labour market beginner

Father self-employed

Family income without the young person's contribution

Rank among siblings

Number of siblings

Family-centred plans for future

Young woman

Young woman\* Family-centred plans for future (interaction)

Relations with political, business, and religious leaders



# Annex 3. Two explanatory variables in detail: place of residence and level of social relations

The territory is approached from two perspectives. An initial dichotomy is established between remote rural areas (more than 90 min by car from the two main cities in the region, Essaouira and Marrakech) and the rest of the countryside, which is closer to urban centres. This distinction allows us to test the influence of isolation on the rural young people's education level and labour force status.

A second dichotomy is identified within the urban area through the characteristics of neighbouring households. The variable is constructed in two steps, beginning with a correspondence analysis on the characteristics of the household-dwelling (modern or traditional housing, occupancy status, internet connection in the dwelling, education level of the household head (secondary or tertiary vs. other), number of persons per room - coded in three classes, each comprising a third of the households -, income per consumption unit - three classes by thirds as well -, proportion of economically active adults, proportion of adults with secondary or tertiary education, possession of driving license for the young person). The first segmentation defined by the associated hierarchical cluster analysis (two classes) identifies the households more disadvantaged than the average (26% of the urban group). We then calculate the proportion of these households in the neighbourhood where the survey was developed. The entire neighbourhood is classified 'disadvantaged' if 40% of the households selected are themselves placed in this category. Otherwise it is classified average or privileged. The median household income observed in average or privileged urban areas is 50% higher than that of households living in a disadvantaged urban area. The educational attainments of the young people in the two kinds of urban areas differ as well: 38% of the young people from an average or privileged neighbourhood have a high-school level and 21%, a tertiary level, compared in 25% and 7%, respectively, in a disadvantaged neighbourhood. In addition, the social pressure on the young women is greater in disadvantaged urban neighbourhoods: 23% of the young women concerned state that they are not seeking employment because of opposition from their fathers or husbands, while only 8% come under this category in average or privileged urban

The level of social relations is calculated on the basis of three successive questions addressed to the young people in order to establish whether they have regular opportunities to exchange views with political leaders, with business leaders and with religious leaders. The variable has a value of 0 if the young person states that he or she has exchanges with none of the three categories, 1 if there is a single exchange only, 2 if there are two and 3 if there are exchanges with all three. This variable measures the young people's social capital, the intensity of their 'weak ties' in Granovetter's terms (1973).

The importance of the family ties is measured by whether or not the father is self-employed (information which is available even if the father does not live in the same dwelling as the young person). Two hypotheses can be formulated:

- if the father is self-employed, the children can work with him as unpaid family workers, notably when he imposes it or the young person does not find another job;
- if the father is self-employed, the children are more inclined to be self-employed themselves, either in the same sector or in another activity (inter-generational transmission of status).

It is also likely that family ties play a significant role in access to entry jobs, even for paid workers, as has been shown with employers-employees datasets in the Swedish case (Kramarz and Skans 2014), especially in an unfavourable economic situation and for those with limited educational experience. This information is not provided by the survey but could be addressed in subsequent research.